

APPENDIX 'A'

GEOTECHNICAL REPORT

City of Winnipeg
**Inkster Boulevard Widening
Brookside Boulevard to
Keewatin Street
Subsurface Investigation**

Prepared by:

AECOM Canada Ltd.

1479 Buffalo Place, Winnipeg, MB, Canada R3T 1L7
T 204.284.0580 F 204.475.3646 www.aecom.com

Project Number:

0265 411 00 (4.4.2)

Date:

March, 2009

Statement of Qualifications and Limitations

The attached Report (the "Report") has been prepared by AECOM Canada Ltd. ("Consultant") for the benefit of the City of Winnipeg ("Client") in accordance with the agreement between Consultant and Client (the "Agreement") for the services described therein, and is subject to the budgetary, time and other constraints and limitations set forth therein.

The information and data contained in the Report, including without limitation the results of any inspections, sampling, testing and analyses and any conclusions or recommendations of Consultant (the "Information"), represent Consultant's professional judgement in light of the knowledge and information available to it at the time of preparation of the Report. Consultant has not updated the Report since the date that the Report was prepared. Further, Consultant has relied upon the accuracy of the information provided to it by Client in order to prepare the Report and Consultant has not independently verified the accuracy of such information, nor was it required to do so. Thus, Consultant shall not be responsible for any events or circumstances that may have occurred since the date on which the Report was prepared which may affect the information contained therein, or for any inaccuracies contained in information that was provided to Consultant by Client.

Consultant makes no guarantees or warranties whatsoever, whether express or implied, with respect to the Report, the Information or any part thereof and Consultant shall not, by the act of preparing or issuing the Report and the Information, be deemed to have represented that the Report or the Information is accurate, exhaustive, complete or applicable to any specific use other than the agreed upon Scope of Work as defined in the Agreement.

Except as required by law, the Report and the Information are to be treated as confidential and, unless otherwise agreed to by Consultant and Client, may be used and relied upon only by Client and its officers and employees, subject to the foregoing limitations. Consultant accepts no responsibility, and denies any liability whatsoever, to parties other than Client who may obtain access to the Report or the Information for any injury, loss or damage suffered by such parties arising from their use of, reliance upon, or decisions or actions based on the Report or any of the Information unless those parties, prior to using or relying on the Report or the Information, have obtained the express written consent of Consultant and Client to use and rely on the Report and the Information, and signed an Authorized User Agreement in a form provided or agreed to by Consultant.

This Disclaimer is attached to and forms part of the Report.

AECOM

1479 Buffalo Place, Winnipeg, Manitoba R3T 1L7
T 204.284.0580 F 204.475.3646 www.aecom.com

March 9, 2009

Project Number: 0265 411 00 (4.4.2)

Mr. Ron Bruce, P.Eng.
AECOM Canada Ltd.
2 – 1600 Ness Avenue
Madison Square
Winnipeg, Manitoba
R3J 3W7

Dear Sir:

Re: Inkster Boulevard Widening Field and Laboratory Investigation

AECOM Canada Ltd. is pleased to present our report on the above referenced project. If you have any questions, please do not hesitate to contact Nelson Ferreira or Jared Baldwin of our office.

Sincerely,

AECOM Canada Ltd.



Ron Typliski, P.Eng.
Vice-President, Manitoba District
Canada West Region
/dh

Distribution List

# of Copies	Association / Company Name	PDF	Hard Copy
4	Ron Bruce, AECOM	0	4

Revision Log

Revision #	Revised By	Date	Issue / Revision Description
1	N. Ferreira	March 9/09	Final

Signature Page

Report Prepared By:

J. Baldwin
for Jared Baldwin, M.Sc., EIT

Report Reviewed By:



Jeff Tallin, P.Eng.



Certificate of Authorization

AECOM Canada Ltd. (MB)

No. 4671 Date: 09/03/09

Table of Contents

Statement of Qualifications and Limitations

Letter of Transmittal

Distribution List

	page
1. Summary	1
2. Field Investigation and Laboratory Program	1

Appendices

Figures Test Hole Plan

Appendix A Test Hole Logs

Appendix B Photos of Core Samples

1. Summary

This report summarizes the results of the subsurface investigation completed for the proposed Inkster Boulevard Widening between Brookside Boulevard and Keewatin Street. The project consists of construction of a four lane roadway between Brookside Boulevard and King Edward Street and King Edward Street and Keewatin Street, and updates to the intersections at Inkster Boulevard and Brookside Boulevard, King Edward Street, and Keewatin Street. Information regarding the subsurface conditions along the multi-use path is provided for design and construction.

2. Field Investigation and Laboratory Program

A total of 50 test holes were drilled along the proposed Inkster Boulevard alignment widening between Brookside Boulevard and Keewatin Street at the locations shown on Figures 1 to 7.

The field investigation was split in two phases. The first phase was conducted on January 22 and 23, 2009 and comprised drilling the test holes along the proposed east bound alignment and multi-use path. These test holes were drilled to a depth of 3.1 m below ground surface by Paddock Drilling Ltd. using an Acker SS2 Maruca track drill equipped with 125 mm diameter solid stem augers. The first phase of the investigation was supervised by Jared Baldwin, EIT of AECOM.

The second phase was conducted on January 27, 28 and 31, 2009 and comprised drilling the test holes along the existing alignment of Inkster Boulevard and intersecting streets. These test holes were drilled to a depth of 3.1 m below ground surface by Paddock Drilling Ltd. using a Brat 22 (January 27 and 28) and Canterra CT250 (January 31) truck mounted drills equipped with 125 mm diameter solid stem augers. The pavement structure (asphalt and/or concrete) was cored by Quality Coring using a portable coring machine equipped with a hollow 150 mm diameter diamond core drill bit. TH-09-38 was cored but was not drilled due to the proximity to overhead and buried services. During this phase traffic protection was provided by Guardian Traffic Services. Two test holes, TH-09-08 and TH-09-35, were drilled on the shoulder adjacent to the locations cored in the pavement core due to proximity to moving traffic. The second phase of the investigation was supervised by Geoff Nolette of AECOM.

Other pertinent information such as groundwater and drilling conditions were also recorded during the field investigations. Disturbed (auger cuttings) samples retrieved during the field investigation were transported to AECOM's material testing laboratory for further testing.

The laboratory testing program consisted of moisture content determination, Atterberg limits and hydrometer tests. The laboratory information has been included on the test hole logs and a summary table of the laboratory test results has been included in Appendix A.

Test hole locations were surveyed and marked and any changes to their location as a result of buried and overhead services were recorded, marked and surveyed. UTM coordinates are provided on the test hole logs.

Photographs of the core samples of the existing pavement are included in Appendix B. No tests were conducted on the core samples.

Figures

Test Hole Plan

THIS DOCUMENT IS PROTECTED BY COPYRIGHT LAW AND MAY NOT BE USED, REPRODUCED OR MODIFIED IN ANY MANNER OR FOR ANY PURPOSE EXCEPT WITH THE WRITTEN PERMISSION OF TOTTEN SIMS HUBICKI ASSOCIATES (1997) LIMITED. DOING BUSINESS AS AECOM ("AECOM") OR A PARTY TO WHICH ITS COPYRIGHT HAS BEEN ASSIGNED. AECOM ACCEPTS NO RESPONSIBILITY, AND DENIES ANY LIABILITY WHATSOEVER, TO ANY PARTY THAT USES, REPRODUCES, MODIFIES, OR RELIES ON THIS DOCUMENT WITHOUT AECOM'S EXPRESS WRITTEN CONSENT.



#1850 BROOKSIDE
RED RIVER
CO-OPERATIVE LTD

#1850 BROOKSIDE
RED RIVER
CO-OPERATIVE LTD

**BROOKSIDE
BLVD**

N5533916.240
E627011.952

TH-09-02

N5533973.462
E627027.237

TH-09-01

N5534222.829
E627013.974

TH-09-04

N5534264.491
E627030.488

TH-09-03
bus stop

#1795 BROOKSIDE
TIM HORTONS

**INKSTER
BLVD**

N5534116.613
E627120.168

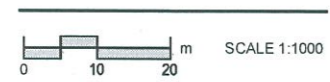
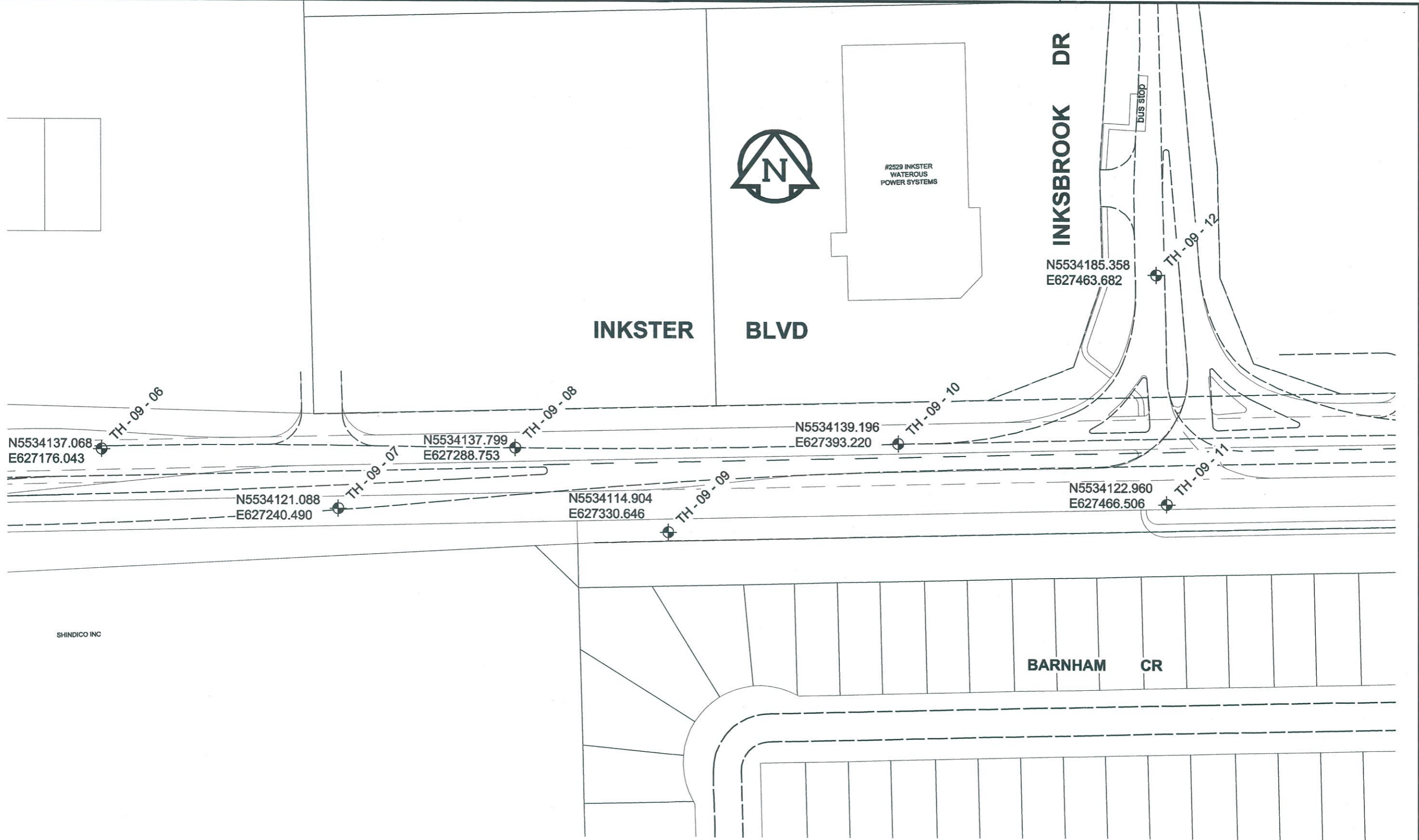
TH-09-05

#1895 BROOKSIDE
PETERBILT
MANITOBA LTD

The City of Winnipeg
Public Works Department- Transportation Engineering Division
Inkster Boulevard Widening and Rehabilitation
Inkster Boulevard - Testhole Locations
Brookside Boulevard to Keewatin Street

Figure - 1

THIS DOCUMENT IS PROTECTED BY COPYRIGHT LAW AND MAY NOT BE USED, REPRODUCED OR MODIFIED IN ANY MANNER OR FOR ANY PURPOSE EXCEPT WITH THE WRITTEN PERMISSION OF TOTTEN SIMS HUBICKI ASSOCIATES (1997) LIMITED. DOING BUSINESS AS AECOM ("AECOM") OR A PARTY TO WHICH ITS COPYRIGHT HAS BEEN ASSIGNED. AECOM ACCEPTS NO RESPONSIBILITY, AND DENIES ANY LIABILITY WHATSOEVER, TO ANY PARTY THAT USES, REPRODUCES, MODIFIES, OR RELIES ON THIS DOCUMENT WITHOUT AECOM'S EXPRESS WRITTEN CONSENT.



THIS DOCUMENT IS PROTECTED BY COPYRIGHT LAW AND MAY NOT BE USED, REPRODUCED OR MODIFIED IN ANY MANNER OR FOR ANY PURPOSE EXCEPT WITH THE WRITTEN PERMISSION OF TOTTEN SIMS HUBICKI ASSOCIATES (1997) LIMITED. DOING BUSINESS AS AECOM ("AECOM") OR A PARTY TO WHICH ITS COPYRIGHT HAS BEEN ASSIGNED. AECOM ACCEPTS NO RESPONSIBILITY, AND DENIES ANY LIABILITY WHATSOEVER, TO ANY PARTY THAT USES, REPRODUCES, MODIFIES, OR RELIES ON THIS DOCUMENT WITHOUT AECOM'S EXPRESS WRITTEN CONSENT.



#2525 INKSTER
FORT GARRY
INDUSTRIES LTD

#2521 INKSTER
FORT GARRY
FIRE TRUCKS

INKSTER BLVD

MOBILE ST

N5534143.756
E627587.411

N5534146.202
E627685.939

N5534149.473
E627825.863

N5534118.510
E627559.372

N5534127.010
E627639.475

N5534118.993
E627715.510

N5534128.903
E627773.266

N5534124.981
E627866.020

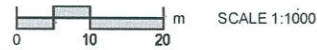
N5534122.691
E627890.477

BARNHAM CR

TALLMAN ST

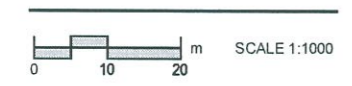
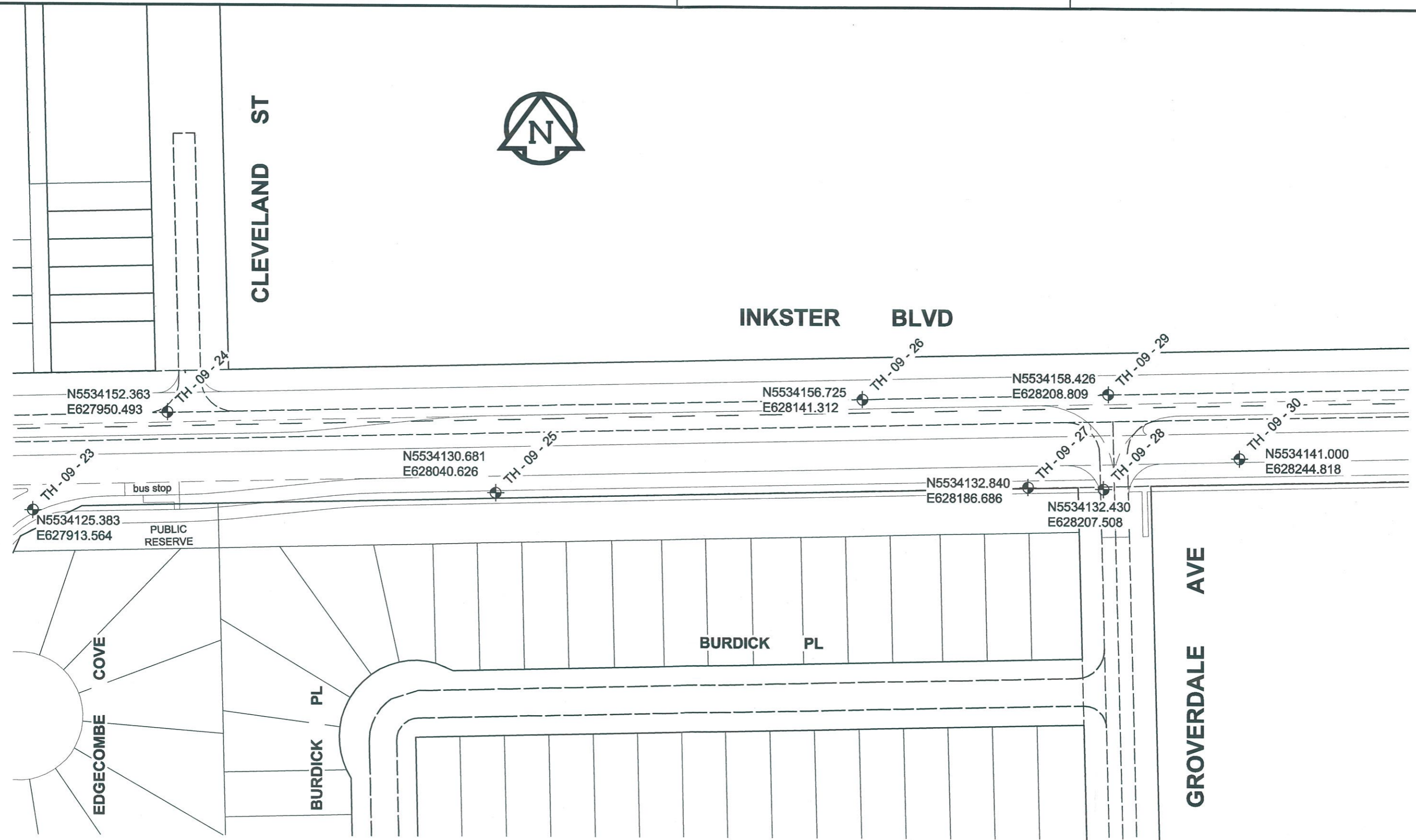
ALSIP DR

BURROWS AVE



The City of Winnipeg
Public Works Department- Transportation Engineering Division
Inkster Boulevard Widening and Rehabilitation
Inkster Boulevard - Testhole Locations
Brookside Boulevard to Keewatin Street
Figure - 3

THIS DOCUMENT IS PROTECTED BY COPYRIGHT LAW AND MAY NOT BE USED, REPRODUCED OR MODIFIED IN ANY MANNER OR FOR ANY PURPOSE EXCEPT WITH THE WRITTEN PERMISSION OF TOTTEN SIMS HUBICKI ASSOCIATES (1997) LIMITED. DOING BUSINESS AS AECOM ("AECOM") OR A PARTY TO WHICH ITS COPYRIGHT HAS BEEN ASSIGNED. AECOM ACCEPTS NO RESPONSIBILITY, AND DENIES ANY LIABILITY WHATSOEVER, TO ANY PARTY THAT USES, REPRODUCES, MODIFIES, OR RELIES ON THIS DOCUMENT WITHOUT AECOM'S EXPRESS WRITTEN CONSENT.



THIS DOCUMENT IS PROTECTED BY COPYRIGHT LAW AND MAY NOT BE USED, REPRODUCED OR MODIFIED IN ANY MANNER OR FOR ANY PURPOSE EXCEPT WITH THE WRITTEN PERMISSION OF TOTTEN SIMS HUBICKI ASSOCIATES (1997) LIMITED. DOING BUSINESS AS AECOM ("AECOM") OR A PARTY TO WHICH ITS COPYRIGHT HAS BEEN ASSIGNED. AECOM ACCEPTS NO RESPONSIBILITY, AND DENIES ANY LIABILITY WHATSOEVER, TO ANY PARTY THAT USES, REPRODUCES, MODIFIES, OR RELIES ON THIS DOCUMENT WITHOUT AECOM'S EXPRESS WRITTEN CONSENT.



INKSTER BLVD

KING EDWARD ST

N5534161.140
E628322.72

TH-09-31

N5534145.612
E628393.463

TH-09-32

N5534163.759
E628444.598

TH-09-33

N5534140.016
E628525.059

TH-09-34

N5534166.192
E628564.214

TH-09-35

N5534160.167
E628607.788

TH-09-36

N5534133.763
E628658.208

TH-09-38

N5534201.353
E628648.996

TH-09-37

#2424 KING EDWARD
STANLEY KNOWLES
SCHOOL

bus stop

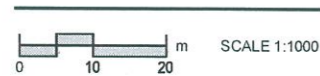
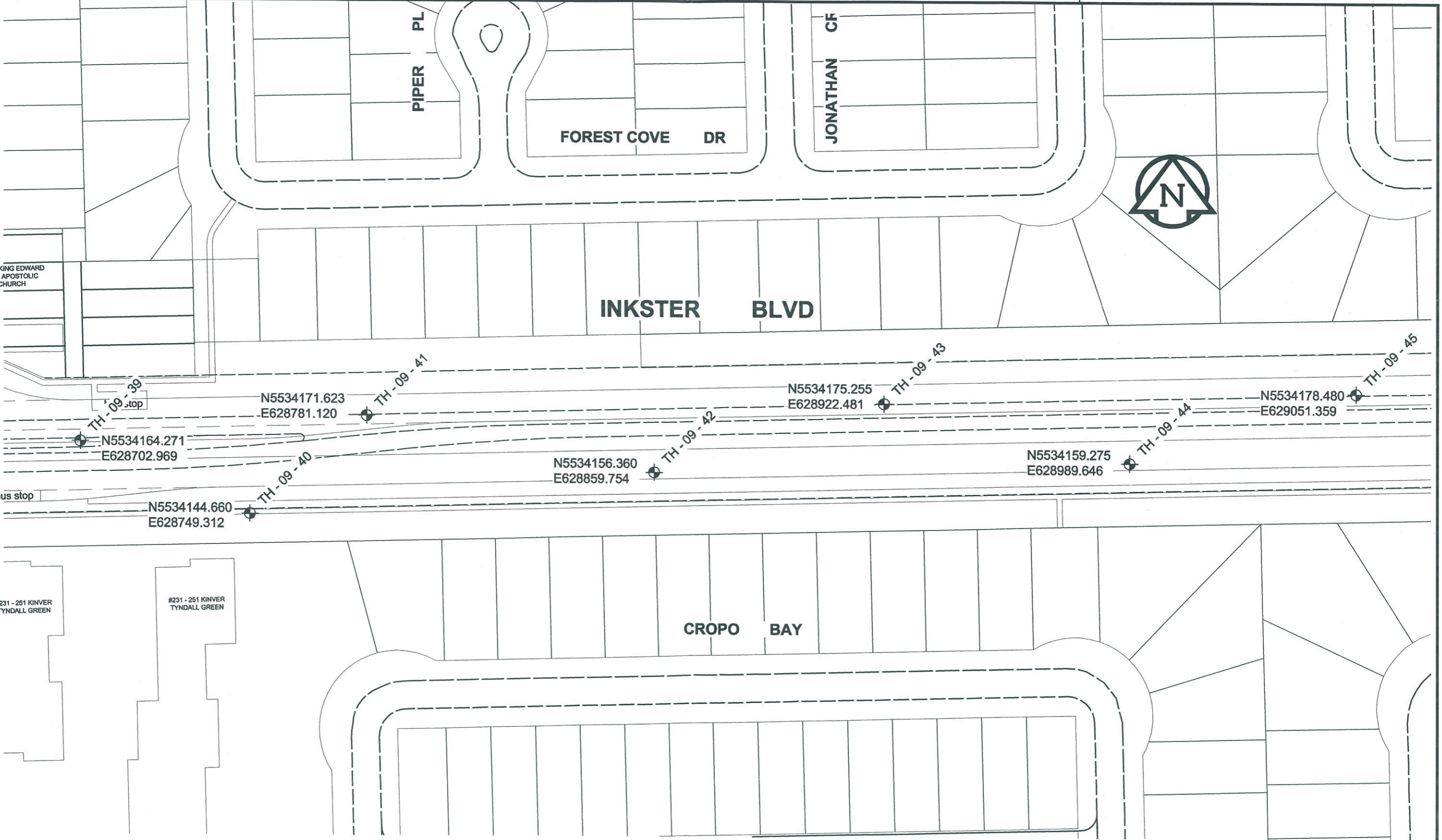
bus stop



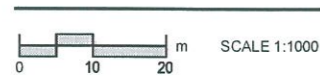
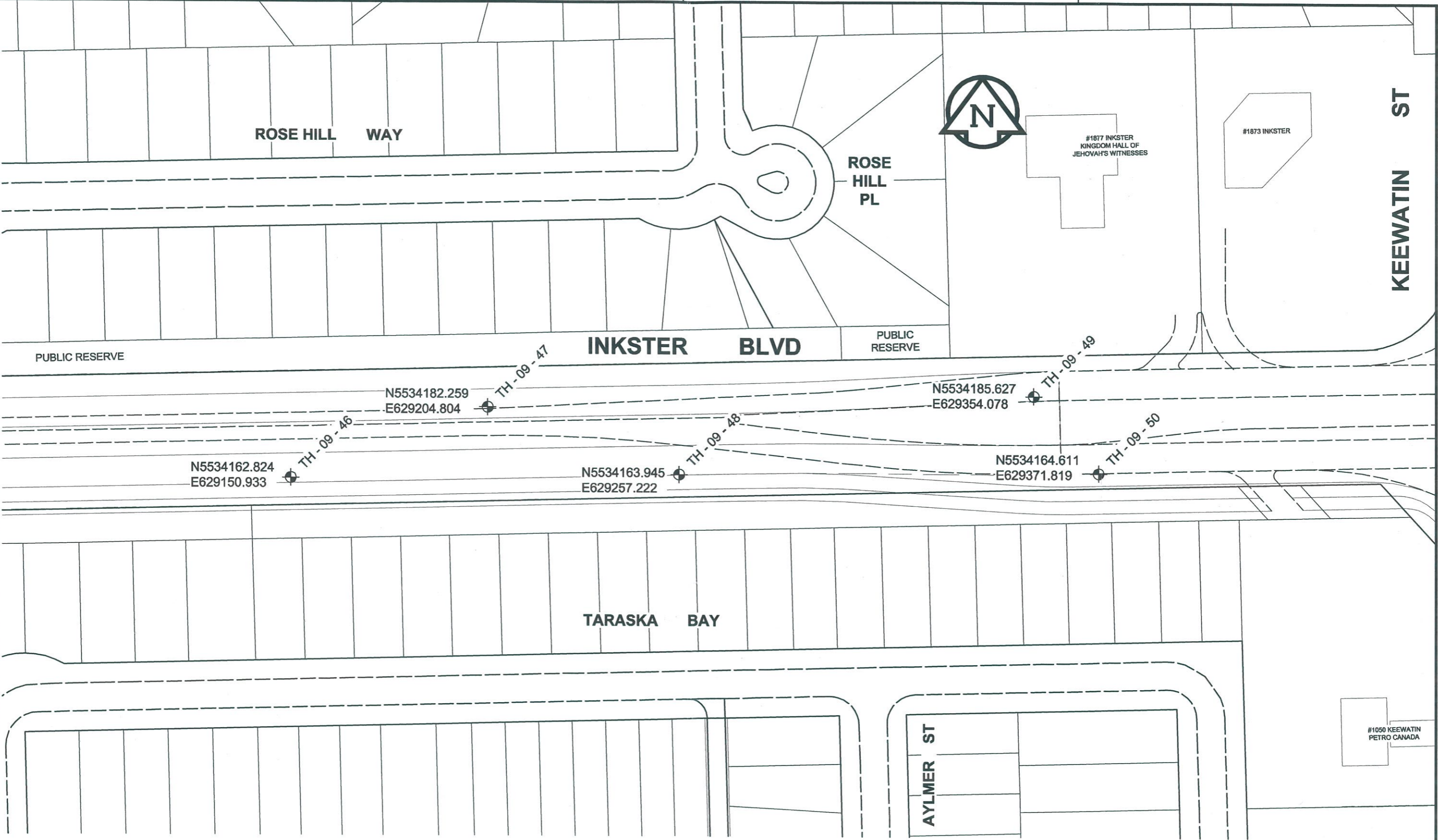
The City of Winnipeg
Public Works Department- Transportation Engineering Division
Inkster Boulevard Widening and Rehabilitation
Inkster Boulevard - Testhole Locations
Brookside Boulevard to Keewatin Street

Figure - 5

THIS DOCUMENT IS PROTECTED BY COPYRIGHT LAW AND MAY NOT BE USED, REPRODUCED OR MODIFIED IN ANY MANNER OR FOR ANY PURPOSE EXCEPT WITH THE WRITTEN PERMISSION OF TOTTEN SIMS HUBICKI ASSOCIATES (1997) LIMITED. DOING BUSINESS AS AECOM ("AECOM") OR A PARTY TO WHICH ITS COPYRIGHT HAS BEEN ASSIGNED. AECOM ACCEPTS NO RESPONSIBILITY, AND DENIES ANY LIABILITY WHATSOEVER, TO ANY PARTY THAT USES, REPRODUCES, MODIFIES, OR RELIES ON THIS DOCUMENT WITHOUT AECOM'S EXPRESS WRITTEN CONSENT.



THIS DOCUMENT IS PROTECTED BY COPYRIGHT LAW AND MAY NOT BE USED, REPRODUCED OR MODIFIED IN ANY MANNER OR FOR ANY PURPOSE EXCEPT WITH THE WRITTEN PERMISSION OF TOTTEN SIMS HUBICKI ASSOCIATES (1997) LIMITED. DOING BUSINESS AS AECOM ("AECOM") OR A PARTY TO WHICH ITS COPYRIGHT HAS BEEN ASSIGNED. AECOM ACCEPTS NO RESPONSIBILITY, AND DENIES ANY LIABILITY WHATSOEVER, TO ANY PARTY THAT USES, REPRODUCES, MODIFIES, OR RELIES ON THIS DOCUMENT WITHOUT AECOM'S EXPRESS WRITTEN CONSENT.



The City of Winnipeg
 Public Works Department- Transportation Engineering Division
 Inkster Boulevard Widening and Rehabilitation
Inkster Boulevard - Testhole Locations
 Brookside Boulevard to Keewatin Street
 Figure - 7

Appendix A

Test Hole Logs

AECOM Canada Ltd.

GENERAL STATEMENT

NORMAL VARIABILITY OF SUBSURFACE CONDITIONS

The scope of the investigation presented herein is limited to an investigation of the subsurface conditions as to suitability for the proposed project. This report has been prepared to aid in the evaluation of the site and to assist the engineer in the design of the facilities. Our description of the project represents our understanding of the significant aspects of the project relevant to the design and construction of earth work, foundations and similar. In the event of any changes in the basic design or location of the structures as outlined in this report or plan, we should be given the opportunity to review the changes and to modify or reaffirm in writing the conclusions and recommendations of this report.

The analysis and recommendations presented in this report are based on the data obtained from the borings and test pit excavations made at the locations indicated on the site plans and from other information discussed herein. This report is based on the assumption that the subsurface conditions everywhere are not significantly different from those disclosed by the borings and excavations. However, variations in soil conditions may exist between the excavations and, also, general groundwater levels and conditions may fluctuate from time to time. The nature and extent of the variations may not become evident until construction. If subsurface conditions differ from those encountered in the exploratory borings and excavations, are observed or encountered during construction, or appear to be present beneath or beyond excavations, we should be advised at once so that we can observe and review these conditions and reconsider our recommendations where necessary.

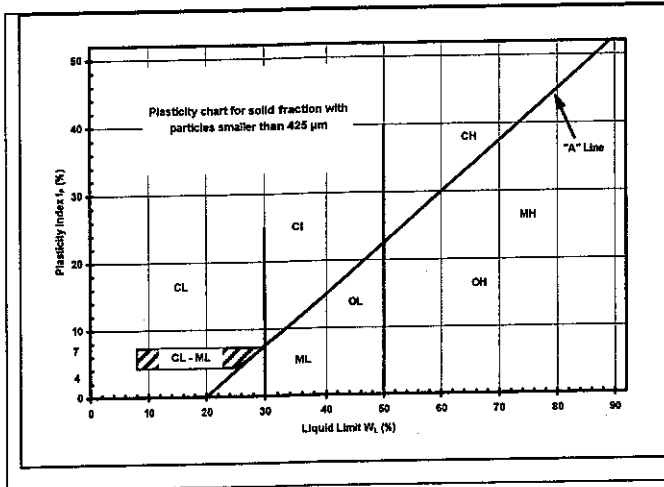
Since it is possible for conditions to vary from those assumed in the analysis and upon which our conclusions and recommendations are based, a contingency fund should be included in the construction budget to allow for the possibility of variations which may result in modification of the design and construction procedures.

In order to observe compliance with the design concepts, specifications or recommendations and to allow design changes in the event that subsurface conditions differ from those anticipated, we recommend that all construction operations dealing with earth work and the foundations be observed by an experienced soils engineer. We can be retained to provide these services for you during construction. In addition, we can be retained to review the plans and specifications that have been prepared to check for substantial conformance with the conclusions and recommendations contained in our report.

EXPLANATION OF FIELD & LABORATORY TEST DATA

Description		UMA Log Symbols	USCS Classification	Laboratory Classification Criteria					
				Fines (%)	Grading	Plasticity	Notes		
COARSE GRAINED SOILS	GRAVELS (More than 50% of coarse fraction of gravel size)	CLEAN GRAVELS (Little or no fines)	Well graded gravels, sandy gravels, with little or no fines		GW	0-5	$C_u > 4$ $1 < C_c < 3$	Dual symbols if 5-12% fines. Dual symbols if above "A" line and $4 < W_p < 7$ $C_u = \frac{D_{60}}{D_{10}}$ $C_c = \frac{(D_{30})^2}{D_{10} \times D_{60}}$	
			Poorly graded gravels, sandy gravels, with little or no fines		GP	0-5	Not satisfying GW requirements		
		DIRTY GRAVELS (With some fines)	Silty gravels, silty sandy gravels		GM	> 12			Atterberg limits below "A" line or $W_p < 4$
			Clayey gravels, clayey sandy gravels		GC	> 12			Atterberg limits above "A" line or $W_p < 7$
	SANDS (More than 50% of coarse fraction of sand size)	CLEAN SANDS (Little or no fines)	Well graded sands, gravelly sands, with little or no fines		SW	0-5	$C_u > 6$ $1 < C_c < 3$		
			Poorly graded sands, gravelly sands, with little or no fines		SP	0-5	Not satisfying SW requirements		
		DIRTY SANDS (With some fines)	Silty sands, sand-silt mixtures		SM	> 12			Atterberg limits below "A" line or $W_p < 4$
			Clayey sands, sand-clay mixtures		SC	> 12			Atterberg limits above "A" line or $W_p < 7$
FINE GRAINED SOILS	SILTS (Below 'A' line negligible organic content)	$W_L < 50$	Inorganic silts, silty or clayey fine sands, with slight plasticity		ML		Classification is Based upon Plasticity Chart		
		$W_L > 50$	Inorganic silts of high plasticity		MH				
	CLAYS (Above 'A' line negligible organic content)	$W_L < 30$	Inorganic clays, silty clays, sandy clays of low plasticity, lean clays		CL				
		$30 < W_L < 50$	Inorganic clays and silty clays of medium plasticity		CI				
		$W_L > 50$	Inorganic clays of high plasticity, fat clays		CH				
	ORGANIC SILTS & CLAYS (Below 'A' line)	$W_L < 50$	Organic silts and organic silty clays of low plasticity		OL				
		$W_L > 50$	Organic clays of high plasticity		OH				
	HIGHLY ORGANIC SOILS		Peat and other highly organic soils		Pt	Von Post Classification Limit		Strong colour or odour, and often fibrous texture	
	Asphalt		Till			AECOM			
	Concrete		Bedrock (Undifferentiated)						
	Fill		Bedrock (Limestone)						

When the above classification terms are used in this report or test hole logs, the designated fractions may be visually estimated and not measured.



FRACTION	SEIVE SIZE (mm)		DEFINING RANGES OF PERCENTAGE BY WEIGHT OF MINOR COMPONENTS	
	Passing	Retained	Percent	Identifier
Gravel	Coarse	76	19	35-50 and
	Fine	19	4.75	
Sand	Coarse	4.75	2.00	20-35 "y" or "ey" *
	Medium	2.00	0.425	
	Fine	0.425	0.075	
Silt (non-plastic) or Clay (plastic)	< 0.075 mm		1-10	trace

* for example: gravelly, sandy clayey, silty

Definition of Oversize Material
 COBBLES: 76mm to 300mm diameter
 BOULDERS: >300mm diameter

LEGEND OF SYMBOLS

Laboratory and field tests are identified as follows:

- q_u - undrained shear strength (kPa) derived from unconfined compression testing.
- T_v - undrained shear strength (kPa) measured using a torvane
- pp - undrained shear strength (kPa) measured using a pocket penetrometer.
- L_v - undrained shear strength (kPa) measured using a lab vane.
- F_v - undrained shear strength (kPa) measured using a field vane.
- γ - bulk unit weight (kN/m³).
- SPT - Standard Penetration Test. Recorded as number of blows (N) from a 63.5 kg hammer dropped 0.76 m (free fall) which is required to drive a 51 mm O.D. Raymond type sampler 0.30 m into the soil.
- DPPT - Drive Point Pentrometer Test. Recorded as number of blows from a 63.5 kg hammer dropped 0.76 m (free fall) which is required to drive a 50 mm drive point 0.30 m into the soil.
- w - moisture content (W_L, W_P)

The undrained shear strength (Su) of a cohesive soil can be related to its consistency as follows:

Su (kPa)	CONSISTENCY
<12	very soft
12 - 25	soft
25 - 50	medium or firm
50 - 100	stiff
100 - 200	very stiff
200	hard

The resistance (N) of a non-cohesive soil can be related to compactness condition as follows

N - BLOWS/0.30 m	COMPACTNESS
0 - 4	very loose
4 - 10	loose
10 - 30	compact
30 - 50	dense
50	very dense

City of Winnipeg
 Inkster Widening - Brookside Boulevard to Keewatin Street
 Subsurface Investigation

Test Hole No.	Test Hole Location	Pavement Surface		Pavement Structure Material		Subgrade Description	Sample Location (m)		Moisture Content (%)	Hydrometer Analysis				Atterberg Limits			
		Type	Thickness (mm)	Type	Thickness (mm)		Start	End		Gravel (%)	Sand (%)	Silt (%)	Clay (%)	Plastic Limit	Liquid Limit	Plasticity Index	
TH-09-01	N - 5533973.462, E - 627027.237	Asphalt	152	Concrete	355	Gravel (Fill)	0.4	0.5	7.1								
						Sand and Clay (Fill)	0.5	0.6	11.0								
						Sand and Clay (Fill)	0.8	0.9	10.9	12.0	39.9	29.0	19.0	13.1	32.5	19.4	
						Clay	1.1	1.2	36.7								
						Clay	1.4	1.5	37.1								
						Clay	1.7	1.8	43.7								
						Clay	2.0	2.1	35.8								
						Clay	2.6	2.7	38.0								
TH-09-02	N - 5533916.240, E - 627011.952	Asphalt	101	Concrete	203	Sand (Pit Run)	0.3	0.5	9.6								
						Sand (Pit Run)	0.5	0.6	9.3								
						Clay	0.8	0.9	21.4								
						Clay	1.1	1.2	22.4								
						Clay	1.4	1.5	23.7								
						Clay	1.7	1.8	23.2								
						Clay	2.0	2.1	27.3								
						Clay	2.6	2.7	37.4								
TH-09-03	N - 5534264.491, E - 627030.488	Asphalt	101	Concrete	254	Sand (Limestone)	0.3	0.4	24.4								
						Clay	0.5	0.6	39.6								
						Clay	0.8	0.9	37.9								
						Clay	1.1	1.2	37.2								
						Clay	1.4	1.5	49.6								
						Clay	1.7	1.8	41.6								
						Clay	2.0	2.1	40.4								
						Clay	2.6	2.7	45.4								
TH-09-04	N - 5534222.829, E - 627103.974	Asphalt	101	Concrete	254	Sand and Clay (Fill)	0.3	0.4	23.3								
						Clay	0.5	0.6	38.3								
						Clay	0.8	0.9	36.3								
						Clay	1.1	1.2	36.9								
						Clay	1.4	1.5	42.2								
						Clay	1.7	1.8	44.5								
						Clay	2.0	2.1	48.3								
						Clay	2.6	2.7	39.3								
TH-09-05	N - 5534116.613, E - 627120.168	Asphalt	101	Concrete	254	Sand and Clay (Fill)	0.2	0.3	14.9								
						Sand (Pit Run)	0.5	0.6	8.0								
						Clay (Fill)	0.8	0.9	14.3								
						Clay (Fill) and Clay	1.1	1.2	27.9	3.0	19.7	23.7	53.6	14.4	55.9	41.5	
						Clay	1.4	1.5	37.5								
						Clay	1.7	1.8	30.4								
						Clay	2.0	2.1	36.6								
						Clay	2.6	2.7	41.9								
TH-09-06	N - 5534137.068, E - 627176.043	Asphalt	152	Concrete	355	Sand (Pit Run)	0.2	0.3	7.3								
						Sand (Pit Run)	0.5	0.6	6.7								
						Clay	0.8	0.9	30.2	0.0	9.4	17.5	73.1	24.7	75.2	50.5	
						Clay	1.1	1.2	33.0								
						Clay	1.4	1.5	36.9								
						Clay	1.7	1.8	39.7								
						Clay	2.0	2.1	41.2								
						Clay	2.6	2.7	46.3								
TH-09-07	N - 5534121.088, E - 627240.490	Asphalt	101	Concrete	254	Sand (Fill)	0.2	0.3	5.9								
						Clay	0.5	0.6	5.6								
						Clay	0.8	0.9	14.0								
						Clay	1.1	1.2	16.1								
						Clay	1.4	1.5	13.2								
						Clay	1.7	1.8	34.9								
						Clay	2.0	2.1	22.8								
						Clay	2.6	2.7	44.0								

City of Winnipeg
 Inkster Widening - Brookside Boulevard to Keewatin Street
 Subsurface Investigation

Test Hole No.	Test Hole Location	Pavement Surface		Pavement Structure Material		Subgrade Description	Sample Location (m)		Moisture Content (%)	Hydrometer Analysis				Atterberg Limits			
		Type	Thickness (mm)	Type	Thickness (mm)		Start	End		Gravel (%)	Sand (%)	Silt (%)	Clay (%)	Plastic Limit	Liquid Limit	Plasticity Index	
TH-09-08	N - 5534137.799, E - 627288.753 on shoulder	Asphalt	174			Sand (Pit Run)	0.2	0.3	10.1								
				Sand (Pit Run)	0.5	0.6	7.6										
				Clay	0.8	0.9	13.6										
				Clay	1.1	1.2	30.0										
				Clay	1.4	1.5	32.8										
				Clay	1.7	1.8	32.7										
				Clay	2.0	2.1	35.4										
				Clay	2.6	2.7	42.2										
TH-09-09	N - 5534114.904, E - 627330.646						0.2	0.3	28.8								
		Clay	0.5	0.6	23.2	30.8	17.5	16.9	34.8	21.8	59.1	37.3					
		Clay	0.8	0.9	25.4												
		Clay	1.1	1.2	30.3												
		Clay	1.4	1.5	40.0												
		Clay	1.7	1.8	45.8												
		Clay	2.0	2.1	53.3												
		Clay	2.6	2.7	53.6												
TH-09-10	N - 5534139.196, E - 627393.220	Asphalt	178			Sand (Pit Run)	0.2	0.3	4.8								
				Clay	0.5	0.6	5.3										
				Clay	0.8	0.9	29.7										
				Clay	1.1	1.2	36.6										
				Clay	1.4	1.5	34.1										
				Clay	1.7	1.8	27.3										
				Clay	2.0	2.1	32.7										
				Clay	2.6	2.7	42.6										
TH-09-11	N - 5534122.960, E - 627466.506					Clay	0.2	0.3	37.6								
		Clay	0.5	0.6	37.8												
		Clay	0.8	0.9	30.2												
		Clay	1.1	1.2	31.8												
		Clay	1.4	1.5	38.2												
		Clay	1.7	1.8	43.1												
		Clay	2.0	2.1	47.9												
		Clay	2.6	2.7	37.2												
TH-09-12	N - 5534185.358, E - 627463.682			Concrete	241												
						Sand (Limestone) and Clay	0.2	0.4	19.9								
						Clay	0.5	0.6	25.6	0.0	35.2	22.6	42.2	20.3	58.9	38.6	
						Clay	0.8	0.9	30.1								
						Clay	1.1	1.2	36.8								
						Clay	1.4	1.5	34.6								
						Clay	1.7	1.8	34.8								
						Clay	2.0	2.1	43.1								
TH-09-13	N - 5534118.510, E - 627559.372					Clay	0.2	0.3	19.1								
						Clay	0.5	0.6	33.6								
						Clay	0.8	0.9	21.5								
						Clay	1.1	1.2	24.1								
						Silt	1.4	1.5	22.3								
						Silt	1.7	1.8	37.4								
						Clay	2.0	2.1	43.0								
						Clay	2.6	2.7	60.7								
TH-09-14	N - 5534143.756, E - 627587.411	Asphalt	178			Sand (Limestone)	0.2	0.3	7.3								
						Sand (Limestone)	0.5	0.6	6.0								
						Clay	0.8	0.9	28.5								
						Clay	1.1	1.2	24.8	1.6	47.0	25.8	25.6	15.7	33.8	18.1	
						Silt	1.4	1.5	15.8								
						Clay	1.7	1.8	28.3								
						Clay	2.0	2.1	38.1								
						Clay	2.6	2.7	46.1								

City of Winnipeg
 Inkster Widening - Brookside Boulevard to Keewatin Street
 Subsurface Investigation

Test Hole No.	Test Hole Location	Pavement Surface		Pavement Structure Material		Subgrade Description	Sample Location (m)		Moisture Content (%)	Hydrometer Analysis				Atterberg Limits				
		Type	Thickness (mm)	Type	Thickness (mm)		Start	End		Gravel (%)	Sand (%)	Silt (%)	Clay (%)	Plastic Limit	Liquid Limit	Plasticity Index		
TH-09-15	N - 5534127.010, E - 627639.475					Silt	0.2	0.3	27.2									
						Silt	0.5	0.6	23.4									
						Clay	0.8	0.9	35.4									
						Clay	1.1	1.2	40.3									
						Clay	1.4	1.5	45.4									
						Clay	1.7	1.8	49.7									
						Clay	2.0	2.1	55.6									
						Clay	2.6	2.7	55.3									
TH-09-16	N - 5534146.202, E - 627685.939	Asphalt	178															
						Sand (Fill)	0.2	0.3	6.5									
						Sand (Fill)	0.5	0.6	6.8									
						Clay	0.8	0.9	26.5									
						Clay	1.1	1.2	28.1									
						Silt	1.4	1.5	26.2									
						Clay and Silt	1.7	1.8	19.5									
						Clay	2.0	2.1	36.9									
TH-09-17	N - 5534118.993, E - 627715.510	Asphalt	63	Concrete	165													
						Sand (Limestone)	0.2	0.4	4.7									
						Sand (Limestone)	0.5	0.6	10.9									
						Clay	0.8	0.9	32.4									
						Clay and Silt	1.1	1.2	19.7									
						Clay and Silt	1.4	1.5	23.5									
						Clay	1.7	1.8	28.7									
						Clay	2.0	2.1	39.6									
TH-09-18	N - 5534128.903, E - 627773.266					Clay	2.6	2.7	58.5									
						Clay	0.2	0.3	31.2									
						Clay	0.5	0.6	27.7									
						Clay	0.8	0.9	29.5	0.0	14.8	41.3	43.9	21.8	47.3	25.5		
						Clay	1.1	1.2	25.7									
						Clay	1.4	1.5	24.3									
						Clay	1.7	1.8	30.2									
						Clay	2.0	2.1	42.3									
TH-09-19	N - 5534149.473, E - 627825.863	Asphalt	203															
						Sand (Fill)	0.2	0.4	13.2									
						Sand (Fill)	0.5	0.6	13.4									
						Clay	0.8	0.9	18.6									
						Clay	1.1	1.2	39.7									
						Clay and Silt	1.4	1.5	32.1									
						Silt	1.7	1.8	22.4									
						Clay	2.0	2.1	31.0									
TH-09-20	N - 5534124.981, E - 627866.020					Clay	2.6	2.7	36.1									
						Clay	0.2	0.3	19.3									
						Clay	0.5	0.6	18.5									
						Clay	0.8	0.9	25.0									
						Clay and Silt	1.1	1.2	20.9									
						Clay and Silt	1.4	1.5	26.6									
						Clay and Silt	1.7	1.8	27.3									
						Clay and Silt	2.0	2.1	24.3									
TH-09-21	N - 5534167.296, E - 627871.833	Asphalt	76															
						Sand and Gravel (Fill)	0.2	0.3	2.6									
						Clay	0.5	0.6	28.1									
						Clay	0.8	0.9	29.5									
						Clay	1.1	1.2	41.0									
						Clay	1.4	1.5	37.9									
						Clay and Silt	1.7	1.8	24.2									
						Silt	2.0	2.1	23.6									
				Clay	2.6	2.7	46.9											

City of Winnipeg
 Inkster Widening - Brookside Boulevard to Keewatin Street
 Subsurface Investigation

Test Hole No.	Test Hole Location	Pavement Surface		Pavement Structure Material		Subgrade Description	Sample Location (m)		Moisture Content (%)	Hydrometer Analysis				Atterberg Limits			
		Type	Thickness (mm)	Type	Thickness (mm)		Start	End		Gravel (%)	Sand (%)	Silt (%)	Clay (%)	Plastic Limit	Liquid Limit	Plasticity Index	
TH-09-22	N - 5534122.691, E - 627890.477	Asphalt	168			Sand and Clay (Fill)	0.2	0.3	15.4								
				Sand and Clay (Fill)	0.5	0.6	19.1										
				Clay	0.8	0.9	28.9										
				Clay and Silt	1.1	1.2	21.6										
				Clay	1.4	1.5	26.2										
				Clay and Silt	1.7	1.8	23.1										
				Clay and Silt	2.0	2.1	23.5										
				Clay	2.6	2.7	39.0										
TH-09-23	N - 5534125.383, E - 627913.564					Clay	0.2	0.3	20.5								
		Clay	0.5	0.6	28.5												
		Clay and Silt	0.8	0.9	25.5												
		Clay and Silt	1.1	1.2	29.9												
		Clay and Silt	1.4	1.5	26.4												
		Silt	1.7	1.8	29.3												
		Silt	2.0	2.1	27.0												
		Silt	2.6	2.7	26.8												
TH-09-24	N - 5534152.363, E - 627950.493	Asphalt	229			Sand (Pit Run)	0.2	0.4	7.5								
				Sand (Pit Run)	0.5	0.6	9.9										
				Clay	0.8	0.9	28.9										
				Clay	1.1	1.2	26.1										
				Clay	1.4	1.5	23.5										
				Clay	1.7	1.8	28.2										
				Clay	2.0	2.1	27.3										
				Silt	2.6	2.7	23.9										
TH-09-25	N - 5534130.681, E - 628040.626					Clay	0.2	0.3	24.0								
		Clay	0.5	0.6	27.2												
		Clay	0.8	0.9	24.3												
		Clay and Silt	1.1	1.2	27.7												
		Silt	1.4	1.5	25.2												
		Silt	1.7	1.8	24.0												
		Silt	2.0	2.1	22.7												
		Silt	2.6	2.7	28.0												
TH-09-26	N - 5534156.725, E - 628141.312	Asphalt	178			Sand (Pit Run)	0.2	0.3	7.6								
				Sand (Pit Run)	0.5	0.6	6.8										
				Clay	0.8	0.9	26.5	0.0	14.3	44.0	41.8						
				Clay	1.1	1.2	26.1										
				Clay	1.4	1.5	27.6										
				Silt	1.7	1.8	20.4										
				Silt	2.0	2.1	22.6										
				Clay	2.6	2.7	37.4										
TH-09-27	N - 5534132.840, E - 628186.686					Clay	0.2	0.3	27.4								
		Clay	0.5	0.6	34.2	0.0	20.6	35.3	44.1	16.6	55.6	39.0					
		Silt	0.8	0.9	17.4												
		Silt	1.1	1.2	19.7												
		Silt	1.4	1.5	31.1												
		Clay	1.7	1.8	32.5												
		Clay	2.0	2.1	43.3												
		clay	2.6	2.7	53.5												
TH-09-28	N - 5534132.430, E - 628207.508	Asphalt	114			Sand (Pit Run)	0.2	0.3	8.8								
				Clay	0.5	0.6	27.4										
				Clay	0.8	0.9	29.1										
				Clay	1.1	1.2	38.8										
				Clay	1.4	1.5	33.2										
				Clay	1.7	1.8	36.9										
				Clay	2.0	2.1	47.2										
				Clay	2.6	2.7	40.8										

City of Winnipeg
 Inkster Widening - Brookside Boulevard to Keewatin Street
 Subsurface Investigation

Test Hole No.	Test Hole Location	Pavement Surface		Pavement Structure Material		Subgrade Description	Sample Location (m)		Moisture Content (%)	Hydrometer Analysis				Atterberg Limits			
		Type	Thickness (mm)	Type	Thickness (mm)		Start	End		Gravel (%)	Sand (%)	Silt (%)	Clay (%)	Plastic Limit	Liquid Limit	Plasticity Index	
TH-09-29	N - 5534158.426, E - 628208.809	Asphalt	178				Sand (Fill)	0.2	0.3	8.3							
							Sand (Fill)	0.5	0.6	6.4							
							Clay	0.8	0.9	28.9							
							Clay	1.1	1.2	26.7							
							Clay	1.4	1.5	38.8							
							Silt	1.7	1.8	22.5							
							Silt	2.0	2.1	19.7							
							Clay	2.6	2.7	36.2							
TH-09-30	N - 5534141.000, E - 628244.818						Clay	0.2	0.3	27.5							
							Clay	0.5	0.6	24.5							
							Clay	0.8	0.9	30.1							
							Clay	1.1	1.2	29.8							
							Silt	1.4	1.5	28.7							
							Silt	1.7	1.8	29.1							
							Silt	2.0	2.1	24.7							
							Silt	2.6	2.7	24.0							
TH-09-31	N - 5534161.140, E - 628322.72	Asphalt	178				Sand (Fill)	0.2	0.3	12.8							
							Sand and Clay (Fill)	0.5	0.6	15.7							
							Clay	0.8	0.9	27.8							
							Clay	1.1	1.2	35.7							
							Clay and Silt	1.4	1.5	30.0							
							Clay and Silt	1.7	1.8	31.4							
							Silt	2.0	2.1	21.6							
							Clay	2.6	2.7	34.2							
TH-09-32	N - 5534145.612, E - 628393.463						Clay	0.2	0.3	46.0							
							Clay	0.5	0.6	38.6							
							Silt	0.8	0.9	23.6							
							Silt	1.1	1.2	26.4							
							Clay	1.4	1.5	34.3							
							Clay	1.7	1.8	43.9							
							Clay	2.0	2.1	44.6							
							Clay	2.6	2.7	48.6							
TH-09-33	N - 5534163.759, E - 628444.598	Asphalt	152				Sand and Clay (Fill)	0.2	0.3	12.2							
							Sand and Clay (Fill)	0.5	0.6	14.4							
							Clay	0.8	0.9	51.5							
							Clay	1.1	1.2	47.8							
							Clay	1.4	1.5	31.2							
							Clay	1.7	1.8	31.9							
							Clay	2.0	2.1	33.5							
							Clay and Silt	2.6	2.7	24.6							
TH-09-34	N - 5534140.016, E - 628525.059						Clay	0.2	0.3	29.3							
							Clay	0.5	0.6	40.3							
							Clay and Silt	0.8	0.9	19.4	0.0	12.9	43.6	34.1	12.9	38.4	25.5
							Clay	1.1	1.2	34.1							
							Clay and Silt	1.4	1.5	31.7							
							Clay and Silt	1.7	1.8	24.5							
							Clay	2.0	2.1	31.7							
							Clay	2.6	2.7	37.2							
TH-09-35	N - 5534166.192, E - 628564.214 on shoulder	Asphalt	254				Sand and Gravel (Fill)	0.3	0.4	5.3							
							Sand and Clay (Fill)	0.5	0.6	9.9							
							Clay	0.8	0.9	24.1							
							Clay and Silt	1.1	1.2	27.7							
							Clay and Silt	1.4	1.5	26.5	0.0	23.1	41.1	35.7	21.7	50.9	29.2
							Silt	1.7	1.8	24.1							
							Silt	2.0	2.1	21.3							
							Clay	2.6	2.7	29.1							

City of Winnipeg
 Inkster Widening - Brookside Boulevard to Keewatin Street
 Subsurface Investigation

Test Hole No.	Test Hole Location	Pavement Surface		Pavement Structure Material		Subgrade Description	Sample Location (m)		Moisture Content (%)	Hydrometer Analysis				Atterberg Limits			
		Type	Thickness (mm)	Type	Thickness (mm)		Start	End		Gravel (%)	Sand (%)	Silt (%)	Clay (%)	Plastic Limit	Liquid Limit	Plasticity Index	
TH-09-36	N - 5534160.167, E - 628607.788	Asphalt	254			Sand (Pit Run)	0.3	0.4	5.4								
				Sand (Pit Run) and Clay	0.5	0.6	19.8										
				Clay	0.8	0.9	50.2										
				Clay	1.1	1.2	37.9										
				Clay	1.4	1.5	22.0										
				Silt	1.7	1.8	22.6										
				Silt	2.0	2.1	22.1										
				Clay	2.6	2.7	37.8	0.0	2.1	18.9	79.0	28.8	90.0	61.2			
TH-09-37	N - 5534201.353, E - 628648.996	Asphalt	101			Sand (Fill)	0.2	0.3	9.3								
				Sand (Fill)	0.5	0.6	11.6										
				Clay	0.8	0.9	23.2										
				Clay	1.1	1.2	30.2										
				Clay	1.4	1.5	42.7										
				Clay	1.7	1.8	47.9										
				Clay	2.0	2.1	39.5										
				Clay	2.6	2.7	54.6										
TH-09-38	N - 5534133.763, E - 628658.208	Asphalt	114														
TH-09-39	N - 5534164.271, E - 628702.969	Asphalt	127			Sand (Fill)	0.4	0.5	7.1								
				Sand (Fill)	0.5	0.6	11.0										
				Clay	0.8	0.9	10.9										
				Clay	1.1	1.2	36.7										
				Clay and Silt	1.4	1.5	37.1										
				Silt	1.7	1.8	43.7										
				Silt	2.0	2.1	35.8										
				Clay	2.6	2.7	38.0										
TH-09-40	N - 5534144.660, E - 628749.312					Clay	0.2	0.3	21.4								
				Clay	0.5	0.6	18.1										
				Clay	0.8	0.9	26.3										
				Clay	1.1	1.2	27.8										
				Clay and Silt	1.4	1.5	25.2										
				Silt	1.7	1.8	23.0										
				Silt	2.0	2.1	22.7										
				Silt	2.6	2.7	23.7										
TH-09-41	N - 5534171.623, E - 628781.120	Asphalt	254			Sand (Fill)	0.3	0.4	13.3								
				Clay and Silt	0.5	0.6	11.0										
				Clay and Silt	0.8	0.9	17.2										
				Clay	1.1	1.2	33.0										
				Clay	1.4	1.5	36.8										
				Silt	1.7	1.8	23.0										
				Silt	2.0	2.1	22.7										
				Clay	2.6	2.7	30.6										
TH-09-42	N - 5534156.360, E - 628859.754					Clay	0.2	0.3	33.2								
				Clay	0.5	0.6	28.3										
				Clay	0.8	0.9	32.5	2.1	37.8	31.5	28.6	14.7	30.6	15.9			
				Clay	1.1	1.2	31.5										
				Clay	1.4	1.5	38.1										
				Clay	1.7	1.8	39.3										
				Clay	2.0	2.1	45.5										
				Clay	2.6	2.7	54.2										
TH-09-43	N - 5534175.255, E - 628922.481	Asphalt	203			Sand (Pit Run)	0.2	0.4	5.2								
				Sand (Pit Run)	0.5	0.6	9.0										
				Clay	0.8	0.9	29.4										
				Clay	1.1	1.2	47.7										
				Clay	1.4	1.5	34.2										
				Clay and Silt	1.7	1.8	26.0										
				Silt	2.0	2.1	25.5										
				Silt	2.6	2.7	22.8										

City of Winnipeg
 Inkster Widening - Brookside Boulevard to Keewatin Street
 Subsurface Investigation

Test Hole No.	Test Hole Location	Pavement Surface		Pavement Structure Material		Subgrade Description	Sample Location (m)		Moisture Content (%)	Hydrometer Analysis				Atterberg Limits			
		Type	Thickness (mm)	Type	Thickness (mm)		Start	End		Gravel (%)	Sand (%)	Silt (%)	Clay (%)	Plastic Limit	Liquid Limit	Plasticity Index	
TH-09-44	N - 5534159.275, E - 628989.646					Clay	0.2	0.3	34.3								
						Clay	0.5	0.6	43.6								
						Clay	0.8	0.9	31.1								
						Silt	1.1	1.2	25.6								
						Silt	1.4	1.5	26.1								
						Silt	1.7	1.8	22.7								
						Clay	2.0	2.1	35.6								
TH-09-45	N - 5534178.480, E - 629051.359	Asphalt	177														
						Sand (Fill)	0.2	0.3	8.0								
						Sand (Fill)	0.5	0.6	8.6								
						Clay	0.8	0.9	56.8								
						Silt	1.1	1.2	30.8								
						Silt	1.4	1.5	25.4								
						Clay and Silt	1.7	1.8	22.2								
TH-09-46	N - 5534162.824, E - 629150.933																
						Clay	0.2	0.3	18.9	0.0	15.2	39.1	45.7	15.6	53.4	37.8	
						Clay	0.5	0.6	25.5								
						Clay	0.8	0.9	39.3								
						Clay	1.1	1.2	37.0								
						Clay	1.4	1.5	33.6								
						Clay	1.7	1.8	41.2								
TH-09-47	N - 5534182.259, E - 629204.804	Asphalt	127														
						Sand (Fill)	0.2	0.3	6.2								
						Sand (Fill)	0.5	0.6	8.3								
						Clay	0.8	0.9	28.0								
						Clay	1.1	1.2	46.5								
						Clay	1.4	1.5	39.8								
						Clay and Silt	1.7	1.8	24.9								
TH-09-48	N - 5534163.945, E - 629257.222																
						Clay	0.2	0.3	30.7								
						Clay	0.5	0.6	36.4								
						Clay	0.8	0.9	27.7								
						Clay	1.1	1.2	27.5								
						Clay	1.4	1.5	34.0								
						Clay	1.7	1.8	37.1								
TH-09-49	N - 5534185.827, E - 629354.078	Asphalt	101														
						Sand (Limestone)	0.2	0.3	6.4								
						Sand (Limestone)	0.5	0.6	4.9								
						Sand (Limestone)	0.8	0.9	5.2								
						Sand (Limestone) and Clay	1.1	1.2	13.4	0.0	28.4	56.4	12.5	14.8	19.4	4.6	
						Clay	1.4	1.5	32.6								
						Clay	1.7	1.8	47.0								
TH-09-50	N - 5534164.611, E - 629371.819			Concrete	254												
						Gravel (Limestone)	0.3	0.4	7.5								
						Gravel (Limestone)	0.5	0.6	6.2								
						Gravel (Limestone)	0.8	0.9	13.1								
						Clay	1.1	1.2	34.0								
						Clay	1.4	1.5	43.0								
						Clay	1.7	1.8	45.0								

PROJECT: Inkster Boulevard Widening	CLIENT: City of Winnipeg	TESTHOLE NO: TH-09-01
LOCATION: N - 5533973.462, E - 627027.237		PROJECT NO.: 0265-411-00
CONTRACTOR: Paddock Drilling Ltd.	METHOD: Bratt 22, 125 mm SSA	ELEVATION (m): 236.199
SAMPLE TYPE	<input checked="" type="checkbox"/> GRAB <input type="checkbox"/> SHELBY TUBE <input checked="" type="checkbox"/> SPLIT SPOON <input type="checkbox"/> BULK	<input checked="" type="checkbox"/> NO RECOVERY <input type="checkbox"/> CORE

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE #	COMMENTS	ELEVATION (m)
0		ASPHALT (152 mm)				236
		CONCRETE (355 mm)				
		GRAVEL (Fill) - sandy, grey, dry, well graded, subangular		G193		
		SAND and CLAY (Fill) - silty, trace gravel (<6 mm dia.) - dark brown - frozen, moist and firm when thawed - intermediate to high plasticity		G194		
				G195		
1		CLAY - silty, some sand, trace gravel (<6 mm dia.) - brown - frozen to 1.5 m, frozen and soft when thawed - high plasticity		G196		235
		- some silt inclusions (<3 mm dia.), firm below 1.5 m		G197		
				G198		
2				G199		234
				G200		
3		End of test hole at 3.1 m in CLAY Notes: 1) No sloughing. 2) No seepage. 3) Backfilled test hole with auger cuttings.				233

Gradation:
Gravel = 12.0%, Sand = 39.9%, Silt = 29.0%, Clay = 19.0%

LOGGED BY: Geoffrey Nolette	COMPLETION DEPTH: 3.05 m
REVIEWED BY: Nelson Ferreira	COMPLETION DATE: 1/28/09
PROJECT ENGINEER: Nelson Ferreira	Page 1 of 1

AECOM

ENVIRO (VAPOUR/F2F3) INKSTER WIDENING - EAST.GPJ UMA.GDT 3/9/09

PROJECT: Inkster Boulevard Widening	CLIENT: City of Winnipeg	TESTHOLE NO: TH-09-02
LOCATION: N - 5533916.240, E - 627011.952		PROJECT NO.: 0265-411-00
CONTRACTOR: Paddock Drilling Ltd.	METHOD: Bratt 22, 125 mm SSA	ELEVATION (m): 236.286
SAMPLE TYPE	<input checked="" type="checkbox"/> GRAB	<input type="checkbox"/> SHELBY TUBE
	<input checked="" type="checkbox"/> SPLIT SPOON	<input type="checkbox"/> BULK
	<input checked="" type="checkbox"/> NO RECOVERY	<input type="checkbox"/> CORE

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE #	COMMENTS	ELEVATION (m)
0		ASPHALT (101 mm)				
		CONCRETE (203 mm)				
		SAND (Pit Run) - some silt, trace gravel (<6 mm dia.) - brown - frozen, moist when thawed - well graded		G137		236
				G138		
		CLAY - sandy, silty, trace gravel (<6 mm dia.) - brown - frozen, moist and soft to firm when thawed - low to intermediate plasticity		G139		
1				G140		235
		CLAY - silty, some sand, trace silt inclusions (<5 mm dia.) - brown - moist, firm - high plasticity		G141		
				G142		
2		- trace gravel (<6 mm dia.), firm to stiff below 1.8 m		G143		234
				G144		
3		End of test hole at 2.7 m in CLAY Notes: 1) No sloughing. 2) No seepage. 3) Backfilled test hole with auger cuttings.				233
4						

ENVIRO (VAPOUR/F2/F3) INKSTER WIDENING - EAST GPJ UMA.GDT 3/9/09

AECOM	LOGGED BY: Geoffrey Nolette	COMPLETION DEPTH: 3.05 m
	REVIEWED BY: Nelson Ferreira	COMPLETION DATE: 1/27/09
	PROJECT ENGINEER: Nelson Ferreira	Page 1 of 1

PROJECT: Inkster Boulevard Widening	CLIENT: City of Winnipeg	TESTHOLE NO: TH-09-03
LOCATION: N - 5534264.491, E - 627030.488		PROJECT NO.: 0265-411-00
CONTRACTOR: Paddock Drilling Ltd.	METHOD: Bratt 22, 125 mm SSA	ELEVATION (m): 236.179
SAMPLE TYPE	<input type="checkbox"/> GRAB <input type="checkbox"/> SHELBY TUBE <input checked="" type="checkbox"/> SPLIT SPOON <input type="checkbox"/> BULK	<input checked="" type="checkbox"/> NO RECOVERY <input type="checkbox"/> CORE

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE #	COMMENTS	ELEVATION (m)
0		CONCRETE (254 mm)				236
		SAND (Limestone) - some gravel (<6 mm dia.), some silt, brown, frozen, moist when thawed, well graded - geotextile at 1.3 m		G177		
		CLAY - silt, some sand, trace organics - dark brown - frozen to 1.8 m, moist and firm when thawed - intermediate to high plasticity		G178		
1		- brown, stiff, high plasticity below 1.2 m		G179		
				G180		235
				G181		
				G182		
2		- trace silt inclusions (<5 mm dia.) below 1.8 m		G183		
				G184		234
3		- firm below 2.1 m				
		End of test hole at 3.1 m in CLAY Notes: 1) No sloughing. 2) No seepage. 3) Backfilled test hole with auger cuttings.				233
4						

ENVIRO (NAPOUR/F2/F3) INKSTER WIDENING - EAST.GPJ UMA.GDT 3/9/09

AECOM

LOGGED BY: Geoffrey Nolette	COMPLETION DEPTH: 3.05 m
REVIEWED BY: Nelson Ferreira	COMPLETION DATE: 1/27/09
PROJECT ENGINEER: Nelson Ferreira	Page 1 of 1

PROJECT: Inkster Boulevard Widening	CLIENT: City of Winnipeg	TESTHOLE NO: TH-09-04
LOCATION: N - 5534222.829, E - 627103.974	METHOD: Bratt 22, 125 mm SSA	PROJECT NO.: 0265-411-00
CONTRACTOR: Paddock Drilling Ltd.	ELEVATION (m): 236.263	
SAMPLE TYPE <input checked="" type="checkbox"/> GRAB	<input type="checkbox"/> SHELBY TUBE	<input checked="" type="checkbox"/> SPLIT SPOON
<input type="checkbox"/> BULK	<input checked="" type="checkbox"/> NO RECOVERY	<input type="checkbox"/> CORE

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE #	COMMENTS	ELEVATION (m)
0		ASPHALT (101 mm)				
		CONCRETE (254 mm)				
		SAND and CLAY (Fill) - silty, trace gravel (<6 mm dia.), brown and dark grey, frozen, moist and soft to firm when thawed, intermediate to high plasticity		G185		236
		CLAY - silty, some sand, trace organics - dark grey - frozen to 1.8 m, moist and firm when thawed - high plasticity		G186		
1		- dark brown, firm below 0.9 m		G187		
		- trace silt inclusions (<5 mm dia.), brown, stiff below 1.2 m		G188		235
				G189		
2		- firm below 2.1 m		G190		
				G191		234
				G192		
3		End of test hole at 3.1 m in CLAY Notes: 1) No sloughing. 2) No seepage. 3) Backfilled test hole with auger cuttings.				233
4						

ENVIRO (VAPOUR/F2/F3) INKSTER WIDENING - EAST.GPJ UMA.GDT 3/9/09

AECOM	LOGGED BY: Geoffrey Nolette	COMPLETION DEPTH: 3.05 m
	REVIEWED BY: Nelson Ferreira	COMPLETION DATE: 1/27/09
	PROJECT ENGINEER: Nelson Ferreira	Page 1 of 1

PROJECT: Inkster Boulevard Widening	CLIENT: City of Winnipeg	TESTHOLE NO: TH-09-05
LOCATION: N - 5534116.613, E - 627120.168		PROJECT NO.: 0265-411-00
CONTRACTOR: Paddock Drilling Ltd.	METHOD: Bratt 22, 125 mm SSA	ELEVATION (m): 235.609
SAMPLE TYPE <input checked="" type="checkbox"/> GRAB <input type="checkbox"/> SHELBY TUBE <input checked="" type="checkbox"/> SPLIT SPOON <input type="checkbox"/> BULK <input checked="" type="checkbox"/> NO RECOVERY <input type="checkbox"/> CORE		

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE #	COMMENTS	ELEVATION (m)
0		ASPHALT (101 mm)				
		SAND and CLAY (Fill) - silty, some gravel (<12 mm dia.) - dark brown - frozen, moist and firm when thawed - intermediate to high plasticity		G201		
		SAND (Pit Run) - gravelly (<19 mm dia.), some clay, some silt - brown - frozen, moist when thawed - well graded		G202		235
		CLAY (Fill) - silty, some sand, some gravel (<12 mm dia.) - dark brown - frozen, moist and firm when thawed - intermediate to high plasticity		G203		
1		CLAY - silty, some sand, trace gravel (<6 mm dia.) - brown - frozen to 1.5 m, moist and soft to firm when thawed - high plasticity		G204		
		- firm below 1.8 m		G205		234
2		- trace silt inclusions (<5 mm dia.), trace precipitates (<3 mm dia.) below 2.1 m		G206		
				G207		
				G208		233
3		End of test hole at 3.1 m in CLAY Notes: 1) No sloughing. 2) No seepage. 3) Backfilled test hole with auger cuttings.				
4						232

Gradation:
Gravel = 3.0%, Sand = 19.7%, Silt = 23.7%, Clay = 53.6%

ENVIRO (VAPOUR/F3) INKSTER WIDENING - EAST.GPJ LIMA.GDT 3/9/09

AECOM

LOGGED BY: Geoffrey Nolette	COMPLETION DEPTH: 3.05 m
REVIEWED BY: Nelson Ferreira	COMPLETION DATE: 1/28/09
PROJECT ENGINEER: Nelson Ferreira	Page 1 of 1

PROJECT: Inkster Boulevard Widening	CLIENT: City of Winnipeg	TESTHOLE NO: TH-09-06
LOCATION: N - 5534137.068, E - 627176.043		PROJECT NO.: 0265-411-00
CONTRACTOR: Paddock Drilling Ltd.	METHOD: Bratt 22, 125 mm SSA	ELEVATION (m): 235.545
SAMPLE TYPE	<input checked="" type="checkbox"/> GRAB <input type="checkbox"/> SHELBY TUBE <input checked="" type="checkbox"/> SPLIT SPOON <input type="checkbox"/> BULK	<input checked="" type="checkbox"/> NO RECOVERY <input type="checkbox"/> CORE

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE #	COMMENTS	ELEVATION (m)	
0		ASPHALT (152 mm)					
		SAND (Pit Run) - trace to some gravel (<6 mm dia.) - brown - frozen, moist when thawed - well graded		G169			
				G170		235	
		CLAY - some silt, trace sand, trace gravel (<6 mm dia.) - dark brown - frozen to 1.5 m, moist and stiff when thawed - high plasticity		G171	Gradation: Sand = 9.4%, Silt = 17.5%, Clay = 73.1%		
1				G172			
		- brown, high plasticity below 1.5 m		G173			234
		- trace silt inclusions (<10 mm dia.), stiff, trace precipitates below 1.8 m		G174			
2				G175			233
		- firm below 2.7 m		G176			
3		End of test hole at 3.1 m in CLAY Notes: 1) No sloping. 2) No seepage. 3) Backfilled test hole with auger cuttings.				232	
4							

ENVIRO (VAPOUR/F2/F3) INKSTER WIDENING - EAST.GPJ UMA.GDT 3/9/09

AECOM	LOGGED BY: Geoffrey Nolette	COMPLETION DEPTH: 3.05 m
	REVIEWED BY: Nelson Ferreira	COMPLETION DATE: 1/27/09
	PROJECT ENGINEER: Nelson Ferreira	Page 1 of 1

PROJECT: Inkster Boulevard Widening	CLIENT: City of Winnipeg	TESTHOLE NO: TH-09-07
LOCATION: N - 5534121.088, E - 627240.490		PROJECT NO.: 0265-411-00
CONTRACTOR: Paddock Drilling Ltd.	METHOD: Canterra CT 250, 125 mm SSA	ELEVATION (m): 235.85
SAMPLE TYPE	<input checked="" type="checkbox"/> GRAB <input type="checkbox"/> SHELBY TUBE <input checked="" type="checkbox"/> SPLIT SPOON <input type="checkbox"/> BULK	<input checked="" type="checkbox"/> NO RECOVERY <input type="checkbox"/> CORE

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE #	COMMENTS	ELEVATION (m)
0		ASPHALT (101 mm)				
		SAND (Fill) - trace gravel (<12 mm dia.) - brown - frozen, moist when thawed - well graded		G249		
				G250		
1		CLAY - silty, sandy, some gravel (<10 mm dia.) - brown - frozen, dy to moist and soft when thawed - intermediate to high placticity		G251		235
				G252		
				G253		
2		CLAY - silty, some sand - brown - frozen to 2.1 m, moist and firm when thawed - high placticity - intermittent clay and silt pockets (<0.08 m thick) between 1.8 and 2.1 m		G254		234
				G255		
				G256		233
3		End of test hole at 3.1 m in CLAY Notes: 1) No sloughing. 2) No seepage. 3) Backfilled test hole with auger cuttings.				
4						232

ENVIRO (VAPOUR/F2/F3) INKSTER WIDENING - EAST.GPJ UMA GDT 3/6/09

AECOM	LOGGED BY: Geoffrey Nolette	COMPLETION DEPTH: 3.05 m
	REVIEWED BY: Nelson Ferreira	COMPLETION DATE: 1/31/09
	PROJECT ENGINEER: Nelson Ferreira	Page 1 of 1



















PROJECT: Inkster Boulevard Widening	CLIENT: City of Winnipeg	TESTHOLE NO: TH-09-08
LOCATION: N - 5534137.799, E - 627288.753 - on shoulder		PROJECT NO.: 0265-411-00
CONTRACTOR: Paddock Drilling Ltd.	METHOD: Canterra CT 250, 125 mm SSA	ELEVATION (m): 236.031
SAMPLE TYPE	<input checked="" type="checkbox"/> GRAB <input type="checkbox"/> SHELBY TUBE <input checked="" type="checkbox"/> SPLIT SPOON <input type="checkbox"/> BULK	<input checked="" type="checkbox"/> NO RECOVERY <input type="checkbox"/> CORE

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE #	COMMENTS	ELEVATION (m)
0		ASPHALT (174 mm)				236
		SAND (Pit Run) - gravelly (<19 mm dia.), some silt - brown - frozen, moist when thawed - well graded - wet when thawed below 0.8 m		G385 G386 G387		
1		CLAY - silty, some sand - dark brown - frozen to 1.7 m, moist and firm when thawed - high plasticity - trace silt inclusions (<5 mm dia.), stiff below 2.1 m		G388 G389 G390 G391 G392		235 234
3		End of test hole at 3.1 m in CLAY Notes: 1) No sloughing. 2) No seepage. 3) Backfilled test hole with auger cuttings.				233
4						

ENVIRO (VAPOUR/F2/F3) INKSTER WIDENING - EAST.GPJ UMA.GDT 3/9/09

AECOM

LOGGED BY: Geoffrey Nolette	COMPLETION DEPTH: 3.05 m
REVIEWED BY: Nelson Ferreira	COMPLETION DATE: 1/31/09
PROJECT ENGINEER: Nelson Ferreira	Page 1 of 1

PROJECT: Inkster Boulevard Widening		CLIENT: City of Winnipeg		TESTHOLE NO: TH-09-09				
LOCATION: N - 5534114.904, E - 627330.646				PROJECT NO.: 0265-411-00				
CONTRACTOR: Paddock Drilling Ltd.		METHOD: Acker SS2 Maruca, 125 mm SSA		ELEVATION (m): 235.444				
SAMPLE TYPE		<input checked="" type="checkbox"/> GRAB	<input type="checkbox"/> SHELBY TUBE	<input checked="" type="checkbox"/> SPLIT SPOON	<input type="checkbox"/> BULK	<input checked="" type="checkbox"/> NO RECOVERY	<input type="checkbox"/> CORE	
DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION			SAMPLE TYPE	SAMPLE #	COMMENTS	ELEVATION (m)
0		ORGANICS - topsoil						
		CLAY - gravelly (<10 mm dia.), some sand, some silt - mottled brown and grey - frozen, moist and soft to firm when thawed - high plasticity				G1	Gradation: Gravel = 30.8%, Sand = 17.5%, Silt = 16.9%, Clay = 34.8%	235
		CLAY - silty, some sand, some organics - dark grey - frozen to 0.9 m, moist and stiff when thawed - intermediate to high plasticity - 0.08 m silt lense, light brown, moist, firm at 0.9 m				G2		
		CLAY - silty, trace sand - brown - moist, stiff - high plasticity				G3		
-1		CLAY - silty, trace sand - brown - moist, stiff - high plasticity				G4		
		- trace silt inclusions (<5 mm dia.) below 1.8 m				G5		
		- mottled brown and grey, firm below 2.1 m				G6		
-2						G7		
						G8		
-3		End of test hole at 3.1 m in CLAY Notes: 1) No sloughing. 2) No seepage. 3) Backfilled test hole with auger cuttings.						232
4								
AECOM		LOGGED BY: Jared Baldwin		COMPLETION DEPTH: 3.05 m				
		REVIEWED BY: Nelson Ferreira		COMPLETION DATE: 1/22/08				
		PROJECT ENGINEER: Nelson Ferreira		Page 1 of 1				

ENVIRO (VAPOUR/F2/F3) INKSTER WIDENING - EAST.GPJ UMA.GDT 3/9/09

PROJECT: Inkster Boulevard Widening CLIENT: City of Winnipeg TESTHOLE NO: TH-09-10
 LOCATION: N - 5534139.196, E - 627393.220 PROJECT NO.: 0265-411-00
 CONTRACTOR: Paddock Drilling Ltd. METHOD: Canterra CT 250, 125 mm SSA ELEVATION (m): 236.035

SAMPLE TYPE GRAB SHELBY TUBE SPLIT SPOON BULK NO RECOVERY CORE

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE #	COMMENTS	ELEVATION (m)
0		ASPHALT (178 mm)				236
		SAND (Pit Run) - gravelly (<19 mm dia.) - brown - frozen, moist when thawed - well graded	<input checked="" type="checkbox"/>	G377		
			<input checked="" type="checkbox"/>	G378		
		CLAY - silty, sandy, some organics - black - frozen to 1.5 m, moist and soft when thawed - intermediate to high plasticity	<input checked="" type="checkbox"/>	G379		
1		- some sand below 1.2 m	<input checked="" type="checkbox"/>	G380		235
		- soft to firm below 1.5 m	<input checked="" type="checkbox"/>	G381		
			<input checked="" type="checkbox"/>	G382		
2		CLAY - silty, some sand - brown - moist, firm - high plasticity	<input checked="" type="checkbox"/>	G383		234
		- trace silt inclusions (<5 mm dia.), stiff, trace precipitates (<3 mm dia.) below 2.1 m	<input checked="" type="checkbox"/>	G384		
3		End of test hole at 3.1 m in CLAY Notes: 1) No sloughing. 2) No seepage. 3) Backfilled test hole with auger cuttings.				233
4						

ENVIRO (VAPOUR/F2/F3) INKSTER WIDENING - EAST GP J, UMA, GDT, 3/9/09

AECOM

LOGGED BY: Geoffrey Nolette COMPLETION DEPTH: 3.05 m
 REVIEWED BY: Nelson Ferreira COMPLETION DATE: 1/31/09
 PROJECT ENGINEER: Nelson Ferreira Page 1 of 1

PROJECT: Inkster Boulevard Widening	CLIENT: City of Winnipeg	TESTHOLE NO: TH-09-11
LOCATION: N - 5534122.960, E - 627466.506		PROJECT NO.: 0265-411-00
CONTRACTOR: Paddock Drilling Ltd.	METHOD: Acker SS2 Maruca, 125 mm SSA	ELEVATION (m): 235.169
SAMPLE TYPE	<input checked="" type="checkbox"/> GRAB <input type="checkbox"/> SHELBY TUBE <input checked="" type="checkbox"/> SPLIT SPOON <input type="checkbox"/> BULK	<input checked="" type="checkbox"/> NO RECOVERY <input type="checkbox"/> CORE

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE #	COMMENTS	ELEVATION (m)
0		ORGANICS - topsoil				
		CLAY - silty, trace sand - brown - frozen, moist and soft when thawed - high plasticity		G9		235
		CLAY - silty, some sand, some organics - black - frozen, moist and soft when thawed - intermediate to high plasticity		G10		
		CLAY - silty, some sand, some organics - black - frozen, moist and soft when thawed - intermediate to high plasticity		G11		
1		CLAY - silty, trace sand, trace gravel (<8 mm dia.) - brown - frozen to 1.2 m, moist and stiff to very stiff when thawed - high plasticity		G12		234
		- trace silt inclusions (<3 mm dia.) below 1.2 m		G13		
		- trace gravel (<19 mm dia.) below 1.7 m		G14		
2		- some silt inclusions (<10 mm dia.), firm to stiff below 2.1 m		G15		233
				G16		
3		End of test hole at 3.1 m in CLAY Notes: 1) No sloughing. 2) No seepage. 3) Backfilled test hole with auger cuttings.				232
4						

ENVIRO (VAPOUR/E2/E3) INKSTER WIDENING - EAST GPJ UMA.GDT 3/9/09

AECOM	LOGGED BY: Jared Baldwin	COMPLETION DEPTH: 3.05 m
	REVIEWED BY: Nelson Ferreira	COMPLETION DATE: 1/22/08
	PROJECT ENGINEER: Nelson Ferreira	Page 1 of 1

PROJECT: Inkster Boulevard Widening	CLIENT: City of Winnipeg	TESTHOLE NO: TH-09-12
LOCATION: N - 5534185.358, E - 627463.682		PROJECT NO.: 0265-411-00
CONTRACTOR: Paddock Drilling Ltd.	METHOD: Bratt 22, 125 mm SSA	ELEVATION (m): 235.787
SAMPLE TYPE	<input type="checkbox"/> GRAB <input checked="" type="checkbox"/> SHELBY TUBE <input checked="" type="checkbox"/> SPLIT SPOON <input type="checkbox"/> BULK	<input checked="" type="checkbox"/> NO RECOVERY <input type="checkbox"/> CORE

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE #	COMMENTS	ELEVATION (m)
0		CONCRETE (241 mm)				
		SAND (Limestone) - some gravel (<12 mm dia.), trace silt, light brown, frozen, moist when thawed, well graded CLAY - silty, sandy, some organics - black - frozen, moist and firm when thawed - high plasticity		G145	Gradation: Sand = 35.2%, Silt = 22.6%, Clay = 42.2%	235
				G146		
				G147		
				G148		
				G149		
				G150		
		CLAY - silty, some sand - brown - frozen to 1.7 m, moist and firm to stiff when thawed - high plasticity		G151		234
		- trace silt inclusions (<5 mm dia.), stiff below 1.8 m		G152		
		- trace sand inclusions (<5 mm dia.) below 2.1 m				
		- mottled brown and grey, firm below 2.7 m				233
3		End of test hole at 3.1 m in CLAY Notes: 1) No sloughing. 2) No seepage. 3) Backfilled test hole with auger cuttings.				232
4						

ENVIRO (VAPOUR/F2/F3) INKSTER WIDENING - EAST.GPJ UMA.GDT 3/9/09

AECOM	LOGGED BY: Geoffrey Nolette	COMPLETION DEPTH: 3.05 m
	REVIEWED BY: Nelson Ferreira	COMPLETION DATE: 1/27/09
	PROJECT ENGINEER: Nelson Ferreira	Page 1 of 1

PROJECT: Inkster Boulevard Widening	CLIENT: City of Winnipeg	TESTHOLE NO: TH-09-13
LOCATION: N - 5534118.510, E - 627559.372		PROJECT NO.: 0265-411-00
CONTRACTOR: Paddock Drilling Ltd.	METHOD: Acker SS2 Maruca, 125 mm SSA	ELEVATION (m): 236.021
SAMPLE TYPE	<input checked="" type="checkbox"/> GRAB	<input type="checkbox"/> SHELBY TUBE
	<input checked="" type="checkbox"/> SPLIT SPOON	<input type="checkbox"/> BULK
	<input checked="" type="checkbox"/> NO RECOVERY	<input type="checkbox"/> CORE

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE #	COMMENTS	ELEVATION (m)
0		ORGANICS - topsoil				
		CLAY - silty, some sand, some organics, trace gravel (<10 mm dia.), brown and black, frozen, moist and soft when thawed, high plasticity	<input checked="" type="checkbox"/>	G17		
		CLAY - silty, some sand, some organics - black - frozen, moist and soft when thawed - intermediate to high plasticity	<input checked="" type="checkbox"/>	G18		
		CLAY - silty, trace sand - brown - frozen, moist and stiff when thawed - high plasticity	<input checked="" type="checkbox"/>	G19		
1			<input checked="" type="checkbox"/>	G20		235
		SILT - some clay, some sand - light brown - moist, soft to firm - intermediate plasticity	<input checked="" type="checkbox"/>	G21		
			<input checked="" type="checkbox"/>	G22		
2		CLAY - silty, trace sand - brown - moist, firm to stiff - high plasticity - trace silt inclusions (<10 mm dia.) below 2.1 m	<input checked="" type="checkbox"/>	G23		234
			<input checked="" type="checkbox"/>	G24		
3		- mottled brown and grey, soft to firm below 2.7 m	<input checked="" type="checkbox"/>			
3		End of test hole at 3.1 m in CLAY Notes: 1) No sloughing. 2) No seepage. 3) Backfilled test hole with auger cuttings.				233
4						

ENVIRO (VAPOUR/E2/F3) INKSTER WIDENING - EAST GPJ UMA GDT 3/9/09

AECOM

LOGGED BY: Jared Baldwin	COMPLETION DEPTH: 3.05 m
REVIEWED BY: Nelson Ferreira	COMPLETION DATE: 1/22/08
PROJECT ENGINEER: Nelson Ferreira	Page 1 of 1

PROJECT: Inkster Boulevard Widening CLIENT: City of Winnipeg TESTHOLE NO: TH-09-14
 LOCATION: N - 5534143.756, E - 627587.411 PROJECT NO.: 0265-411-00
 CONTRACTOR: Paddock Drilling Ltd. METHOD: Canterra CT 250, 125 mm SSA ELEVATION (m): 236.094

SAMPLE TYPE GRAB SHELBY TUBE SPLIT SPOON BULK NO RECOVERY CORE

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE #	COMMENTS	ELEVATION (m)
0		ASPHALT (178 mm)				236
		SAND (Limestone) - some gravel (<12 mm dia.), trace silt - light brown - frozen, moist when thawed - well graded	<input checked="" type="checkbox"/>	G369		
			<input checked="" type="checkbox"/>	G370		
		CLAY - silty, some some, trace to some organics - dark grey and black - frozen, moist and soft when thawed - intermediate to high plasticity	<input checked="" type="checkbox"/>	G371		
			<input checked="" type="checkbox"/>	G372		
		- sandy below 1.2 m			Gradation: Gravel = 1.6%, Sand = 47.0%, Silt = 25.8%, Clay = 25.6%	235
		SILT - some clay to clayey, some sand - light brown - frozen, moist and soft to firm when thawed - low to intermediate plasticity	<input checked="" type="checkbox"/>	G373		
		CLAY - silty, some sand - brown - frozen to 1.8 m, moist and firm to stiff when thawed - high plasticity	<input checked="" type="checkbox"/>	G374		
			<input checked="" type="checkbox"/>	G375		
		- trace silt inclusions (<5 mm dia.), trace precipitates (<3 mm dia.) below 2.1 m				
			<input checked="" type="checkbox"/>	G376		234
		- trace sand below 2.7 m				
3		End of test hole at 3.1 m in CLAY Notes: 1) No sloughing. 2) No seepage. 3) Backfilled test hole with auger cuttings.				233
4						

ENVIRO (VAPOUR/F2/F3) INKSTER WIDENING - EAST.GPJ UMA.GDT 3/9/09

PROJECT: Inkster Boulevard Widening	CLIENT: City of Winnipeg	TESTHOLE NO: TH-09-15
LOCATION: N - 5534127.010, E - 627639.475		PROJECT NO.: 0265-411-00
CONTRACTOR: Paddock Drilling Ltd.	METHOD: Acker SS2 Maruca, 125 mm SSA	ELEVATION (m): 235.183

SAMPLE TYPE GRAB SHELBY TUBE SPLIT SPOON BULK NO RECOVERY CORE

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE #	COMMENTS	ELEVATION (m)
0		ORGANICS - topsoil				
		SILT - some clay to clayey, some sand, brown, frozen, moist and soft to firm when thawed, low to intermediate plasticity - light brown below 0.3 m		G25		235
				G26		
		CLAY - silty, trace sand - brown - frozen to 0.9 m, moist and stiff to very stiff when thawed - high plasticity		G27		
1				G28		234
		- 0.03 m silt pocket at 1.5 m		G29		
		- trace silt inclusions (<3 mm dia.), firm to stiff below 1.8 m		G30		
2				G31		233
		- grey below 2.4 m		G32		
		- trace gravel (<20 mm dia.), soft to firm below 2.7 m				
3		End of test hole at 3.1 m in CLAY Notes: 1) No sloughing. 2) No seepage. 3) Backfilled test hole with auger cuttings.				232
4						

ENVIRO (VAPOUR/F2/F3) INKSTER WIDENING - EAST.GPJ UMA.GDT 3/9/08

AECOM

LOGGED BY: Jared Baldwin	COMPLETION DEPTH: 3.05 m
REVIEWED BY: Nelson Ferreira	COMPLETION DATE: 1/22/08
PROJECT ENGINEER: Nelson Ferreira	Page 1 of 1

PROJECT: Inkster Boulevard Widening	CLIENT: City of Winnipeg	TESTHOLE NO: TH-09-16
LOCATION: N - 5534146.202, E - 627685.939		PROJECT NO.: 0265-411-00
CONTRACTOR: Paddock Drilling Ltd.	METHOD: Canterra CT 250, 125 mm SSA	ELEVATION (m): 235.92
SAMPLE TYPE	<input type="checkbox"/> GRAB <input type="checkbox"/> SHELBY TUBE <input checked="" type="checkbox"/> SPLIT SPOON <input type="checkbox"/> BULK	<input checked="" type="checkbox"/> NO RECOVERY <input type="checkbox"/> CORE















DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE #	COMMENTS	ELEVATION (m)
0		ASPHALT (178 mm)				
		SAND (Fill) - gravelly (<19 mm dia.), some silt - light brown - frozen, moist when thawed - well graded		G361		
				G362		
		CLAY - silty, some sand, some organics - black - frozen, moist and soft to firm when thawed - intermediate to high plasticity		G363		235
				G364		
		SILT - some clay to clayey - light brown - frozen to 1.5 m, moist to wet and soft when thawed - low to intermediate plasticity		G365		
		CLAY and SILT - some sand - light brown - moist, soft to firm - intermediate to high plasticity		G366		234
		CLAY - silty, some sand - light brown - dry to moist, stiff - high plasticity		G367		
		- trace silt inclusions (<5 mm dia.) below 2.7 m		G368		233
3		End of test hole at 3.1 m in CLAY Notes: 1) No sloughing. 2) No seepage. 3) Backfilled test hole with auger cuttings.				
4						232

ENVIRO (VAPOUR/F2/F3) INKSTER WIDENING - EAST.GPJ_UMA.GOT 3/9/09

AECOM

LOGGED BY: Geoffrey Nolette	COMPLETION DEPTH: 3.05 m
REVIEWED BY: Nelson Ferreira	COMPLETION DATE: 1/31/09
PROJECT ENGINEER: Nelson Ferreira	Page 1 of 1

PROJECT: Inkster Boulevard Widening	CLIENT: City of Winnipeg	TESTHOLE NO: TH-09-17
LOCATION: N - 5534118.993, E - 627715.510		PROJECT NO.: 0265-411-00
CONTRACTOR: Paddock Drilling Ltd.	METHOD: Bratt 22, 125 mm SSA	ELEVATION (m): 235.61
SAMPLE TYPE	<input checked="" type="checkbox"/> GRAB <input type="checkbox"/> SHELBY TUBE <input checked="" type="checkbox"/> SPLIT SPOON <input type="checkbox"/> BULK	<input checked="" type="checkbox"/> NO RECOVERY <input type="checkbox"/> CORE

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE #	COMMENTS	ELEVATION (m)
0		ASPHALT (63 mm)				
		CONCRETE (165 mm)				
		SAND (Limestone) - silty, gravelly (<19 mm dia.) - light brown - frozen, moist when thawed - well graded		G153		
				G154		
		CLAY - silty, some sand, some organics - black - frozen, moist, soft to firm when thawed - intermediate to high plasticity		G155		235
		CLAY and SILT - trace to some sand - light brown and light grey - frozen to 1.5 m, moist and soft to firm when thawed - intermediate plasticity		G156		
				G157		
		CLAY - silty, some sand - brown - moist, stiff - high plasticity		G158		234
		- trace silt inclusions (<5 mm dia.) below 2.1 m		G159		
		- firm below 2.7 m		G160		233
3		End of test hole at 3.1 m in CLAY Notes: 1) No sloughing. 2) No seepage. 3) Backfilled test hole with auger cuttings.				232
4						

ENVIRO (NAPOURF2/F3) INKSTER WIDENING - EAST.GPJ UMA.GDT 3/9/09

AECOM

LOGGED BY: Geoffrey Nolette	COMPLETION DEPTH: 3.05 m
REVIEWED BY: Nelson Ferreira	COMPLETION DATE: 1/27/09
PROJECT ENGINEER: Nelson Ferreira	Page 1 of 1

PROJECT: Inkster Boulevard Widening	CLIENT: City of Winnipeg	TESTHOLE NO: TH-09-18
LOCATION: N - 5534128.903, E - 627773.266		PROJECT NO.: 0265-411-00
CONTRACTOR: Paddock Drilling Ltd.	METHOD: Acker SS2 Maruca, 125 mm SSA	ELEVATION (m): 235.146
SAMPLE TYPE	<input checked="" type="checkbox"/> GRAB	<input type="checkbox"/> SHELBY TUBE
	<input checked="" type="checkbox"/> SPLIT SPOON	<input type="checkbox"/> BULK
	<input checked="" type="checkbox"/> NO RECOVERY	<input type="checkbox"/> CORE

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE #	COMMENTS	ELEVATION (m)
0		ORGANICS - topsoil				
		CLAY - silty, trace sand - brown - frozen, moist and soft when thawed - high plasticity	<input checked="" type="checkbox"/>	G33		235
		CLAY - silty, some sand - brown - frozen to 0.6 m, moist and soft when thawed - intermediate to high plasticity	<input checked="" type="checkbox"/>	G34		
			<input checked="" type="checkbox"/>	G35	Gradation: Sand = 14.8%, Silt = 41.3%, Clay = 43.9%	
			<input checked="" type="checkbox"/>	G36		234
			<input checked="" type="checkbox"/>	G37		
			<input checked="" type="checkbox"/>	G38		
		CLAY - silty, trace sand, brown, moist, firm to stiff, high plasticity - trace silt inclusions (<5 mm dia.) below 2.1 m - 0.03 m silt pocket at 2.4 m	<input checked="" type="checkbox"/>	G39		233
			<input checked="" type="checkbox"/>	G40		
3		End of test hole at 3.1 m in CLAY Notes: 1) No sloughing. 2) No seepage. 3) Backfilled test hole with auger cuttings.				232

ENVIRO (VAPOUR/F2/F3) INKSTER WIDENING - EAST GPJ UMA GDT 3/9/09

AECOM	LOGGED BY: Jared Baldwin	COMPLETION DEPTH: 3.05 m
	REVIEWED BY: Nelson Ferreira	COMPLETION DATE: 1/22/08
	PROJECT ENGINEER: Nelson Ferreira	Page 1 of 1

PROJECT: Inkster Boulevard Widening		CLIENT: City of Winnipeg		TESTHOLE NO: TH-09-19		
LOCATION: N - 5534149.473, E - 627825.863		METHOD: Canterra CT 250, 125 mm SSA		PROJECT NO.: 0265-411-00		
CONTRACTOR: Paddock Drilling Ltd.		METHOD: Canterra CT 250, 125 mm SSA		ELEVATION (m): 235.638		
SAMPLE TYPE		<input type="checkbox"/> GRAB <input type="checkbox"/> SHELBY TUBE <input checked="" type="checkbox"/> SPLIT SPOON <input type="checkbox"/> BULK <input checked="" type="checkbox"/> NO RECOVERY <input type="checkbox"/> CORE				
DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE #	COMMENTS	ELEVATION (m)
0		ASPHALT (203 mm)				
		SAND (Fill) - silty, some clay, some gravel (<6 mm dia.) - light brown - frozen, moist to wet when thawed - well graded - clayey below 0.5 m		G353		
				G354		
		CLAY - silty, some sand, trace to some organics - dark brown and black - frozen, moist and soft when thawed - intermediate to high plasticity		G355		235
				G356		
		CLAY and SILT - trace to some sand - light brown - frozen, moist and soft when thawed - intermediate plasticity		G357		234
				G358		
		SILT - some clay to clayey, trace sand - light brown - wet, firm - low to intermediate plasticity		G359		
				G360		233
		CLAY - silty, some sand - brown - moist, stiff - high plasticity				
		- trace silt inclusions (<5 mm dia.) below 2.7 m				
3		End of test hole at 3.1 m in CLAY Notes: 1) No sloughing. 2) No seepage. 3) Backfilled test hole with auger cuttings.				232
4						

ENVIRO (NAPOUR/F2/F3) INKSTER WIDENING - EAST.GPJ UMA.GDT 3/9/09

AECOM

LOGGED BY: Geoffrey Nolette
REVIEWED BY: Nelson Ferreira
PROJECT ENGINEER: Nelson Ferreira

COMPLETION DEPTH: 3.05 m
COMPLETION DATE: 1/31/09

PROJECT: Inkster Boulevard Widening	CLIENT: City of Winnipeg	TESTHOLE NO: TH-09-20
LOCATION: N - 5534124.981, E - 627866.020		PROJECT NO.: 0265-411-00
CONTRACTOR: Paddock Drilling Ltd.	METHOD: Acker SS2 Maruca, 125 mm SSA	ELEVATION (m): 235.102
SAMPLE TYPE	<input checked="" type="checkbox"/> GRAB <input type="checkbox"/> SHELBY TUBE <input checked="" type="checkbox"/> SPLIT SPOON <input type="checkbox"/> BULK	<input checked="" type="checkbox"/> NO RECOVERY <input type="checkbox"/> CORE

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE #	COMMENTS	ELEVATION (m)
0		ORGANICS - topsoil				235
		CLAY - silty, some sand, trace gravel (<20 mm dia.) - brown - frozen, moist and firm when thawed - high plasticity - 0.08 m silt lense at 0.5 m		G41 G42		
		CLAY - silty, some sand, some organics, black, frozen, moist and stiff when thawed, intermediate to high plasticity		G43		
-1		CLAY and SILT - some sand - light brown - moist, soft to firm - intermediate plasticity		G44 G45 G46		234
-2				G47		233
		- some gravel (<20 mm dia.) below 2.6 m		G48		
-3		CLAY - silty, trace sand - brown - moist, firm - high plasticity				
		End of test hole at 3.1 m in CLAY Notes: 1) No sloughing. 2) No seepage. 3) Backfilled test hole with auger cuttings.				232
4						

ENVIRO (NAPOLURF2F3) INKSTER WIDENING - EAST GPJ UMA.GDT 3/9/09

AECOM

LOGGED BY: Jared Baldwin	COMPLETION DEPTH: 3.05 m
REVIEWED BY: Nelson Ferreira	COMPLETION DATE: 1/22/08
PROJECT ENGINEER: Nelson Ferreira	Page 1 of 1

PROJECT: Inkster Boulevard Widening	CLIENT: City of Winnipeg	TESTHOLE NO: TH-09-21
LOCATION: N - 5534167.296, E - 627871.833		PROJECT NO.: 0265-411-00
CONTRACTOR: Paddock Drilling Ltd.	METHOD: Bratt 22, 125 mm SSA	ELEVATION (m): 235.137
SAMPLE TYPE <input checked="" type="checkbox"/> GRAB <input type="checkbox"/> SHELBY TUBE <input checked="" type="checkbox"/> SPLIT SPOON <input type="checkbox"/> BULK <input checked="" type="checkbox"/> NO RECOVERY <input type="checkbox"/> CORE		

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE #	COMMENTS	ELEVATION (m)
0		ASPHALT (76 mm)				235
		SAND and GRAVEL (Fill) - some silt, grey - dry - well graded	<input checked="" type="checkbox"/>	G345		
		CLAY - silty, sandy, some organics - black - frozen, moist and soft when thawed - intermediate to high plasticity	<input checked="" type="checkbox"/>	G346		
		CLAY - silty, some sand, trace silt inclusions (<5 mm dia.) - brown - frozen to 1.5 m, moist and firm when thawed - high plasticity	<input checked="" type="checkbox"/>	G347		
1		CLAY - silty, some sand, trace silt inclusions (<5 mm dia.) - brown - frozen to 1.5 m, moist and firm when thawed - high plasticity	<input checked="" type="checkbox"/>	G348		234
		CLAY - silty, some sand, trace silt inclusions (<5 mm dia.) - brown - frozen to 1.5 m, moist and firm when thawed - high plasticity	<input checked="" type="checkbox"/>	G349		
		CLAY and SILT - some sand - light brown - moist, soft - intermediate plasticity	<input checked="" type="checkbox"/>	G350		
2		SILT - some clay to clayey, some sand - light brown - moist to wet, firm - low to intermediate plasticity	<input checked="" type="checkbox"/>	G351		233
		CLAY - silty, some sand - brown - moist, stiff - high plasticity	<input checked="" type="checkbox"/>	G352		
3		End of test hole at 3.1 m in CLAY Notes: 1) No sloughing. 2) No seepage. 3) Backfilled test hole with auger cuttings.				232
4						

ENVIRO (VAPOUR/F2/F3) INKSTER WIDENING - EAST GPJ UMA.GDT 3/9/09


















AECOM	LOGGED BY: Geoffrey Nolette	COMPLETION DEPTH: 3.05 m
	REVIEWED BY: Nelson Ferreira	COMPLETION DATE: 1/28/09
	PROJECT ENGINEER: Nelson Ferreira	Page 1 of 1

PROJECT: Inkster Boulevard Widening	CLIENT: City of Winnipeg	TESTHOLE NO: TH-09-22
LOCATION: N - 5534122.691, E - 627890.477		PROJECT NO.: 0265-411-00
CONTRACTOR: Paddock Drilling Ltd.	METHOD: Bratt 22, 125 mm SSA	ELEVATION (m): 234.97
SAMPLE TYPE	<input type="checkbox"/> GRAB <input checked="" type="checkbox"/> SHELBY TUBE <input checked="" type="checkbox"/> SPLIT SPOON <input type="checkbox"/> BULK	<input checked="" type="checkbox"/> NO RECOVERY <input type="checkbox"/> CORE

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE #	COMMENTS	ELEVATION (m)
0		ASPHALT (168 mm)				
		SAND and CLAY (Fill) - silty, some gravel (<25 mm dia.) - dark brown - frozen, dry to moist and firm when thawed - intermediate to high plasticity		G161		
		CLAY - silty, some sand, some organics - black - frozen, moist and soft to firm when thawed - intermediate to high plasticity		G162		
1		CLAY and SILT - some sand - light brown - frozen, moist and firm when thawed - intermediate plasticity		G163		234
		CLAY and SILT - some sand - light brown - frozen, moist and firm when thawed - intermediate plasticity		G164		
		CLAY - silty, some sand - brown - frozen to 1.5 m, moist and firm when thawed - high plasticity		G165		
2		CLAY and SILT - some sand - light brown - moist, soft to firm - intermediate to high plasticity		G166		233
		CLAY and SILT - some sand - light brown - moist, soft to firm - intermediate to high plasticity		G167		
		CLAY - silty, some sand, trace silt inclusions (<5 mm dia.) - brown - moist, stiff - high plasticity		G168		
3		End of test hole at 3.1 m in CLAY Notes: 1) No sloughing. 2) No seepage. 3) Backfilled test hole with auger cuttings.				232
4						231

ENVIRO (VAPOUR/F2/F3) INKSTER WIDENING - EAST.GPJ UMA.GDT 3/9/09

AECOM	LOGGED BY: Geoffrey Nolette	COMPLETION DEPTH: 3.05 m
	REVIEWED BY: Nelson Ferreira	COMPLETION DATE: 1/27/09
	PROJECT ENGINEER: Nelson Ferreira	Page 1 of 1

PROJECT: Inkster Boulevard Widening		CLIENT: City of Winnipeg		TESTHOLE NO: TH-09-23				
LOCATION: N - 5534125.383, E - 627913.564				PROJECT NO.: 0265-411-00				
CONTRACTOR: Paddock Drilling Ltd.		METHOD: Acker SS2 Maruca, 125 mm SSA		ELEVATION (m): 234.674				
SAMPLE TYPE		<input checked="" type="checkbox"/> GRAB	<input type="checkbox"/> SHELBY TUBE	<input checked="" type="checkbox"/> SPLIT SPOON	<input type="checkbox"/> BULK	<input checked="" type="checkbox"/> NO RECOVERY	<input type="checkbox"/> CORE	
DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION			SAMPLE TYPE	SAMPLE #	COMMENTS	ELEVATION (m)
0		ORGANICS - topsoil						
		CLAY - silty, trace sand - brown - frozen, moist and firm when thawed - high plasticity				G49		
		CLAY - silty, some sand, some organics - black - frozen, moist and firm when thawed - intermediate to high plasticity				G50		234
		CLAY and SILT - some sand - light brown - moist, soft to firm - intermediate plasticity				G51		
		- brown below 1.1 m				G52		
						G53		233
		SILT - clayey, trace sand - mottled brown and light brown - moist, very soft - low to intermediate plasticity				G54		
		- some sand inclusions (<10 mm dia.), trace oxidation below 2.1 m				G55		
						G56		232
3		End of test hole at 3.1 m in SILT Notes: 1) No sloughing. 2) No seepage. 3) Backfilled test hole with auger cuttings.						231
4								

ENVIRO (VAPOUR/F2/F3) INKSTER WIDENING - EAST.GPJ UMA.GDT 3/9/09

AECOM







LOGGED BY: Jared Baldwin	COMPLETION DEPTH: 3.05 m
REVIEWED BY: Nelson Ferreira	COMPLETION DATE: 1/22/08
PROJECT ENGINEER: Nelson Ferreira	Page 1 of 1

PROJECT: Inkster Boulevard Widening	CLIENT: City of Winnipeg	TESTHOLE NO: TH-09-24
LOCATION: N - 5534152.363, E - 627950.493		PROJECT NO.: 0265-411-00
CONTRACTOR: Paddock Drilling Ltd.	METHOD: Canterra CT 250, 125 mm SSA	ELEVATION (m): 235.289
SAMPLE TYPE	<input checked="" type="checkbox"/> GRAB <input type="checkbox"/> SHELBY TUBE <input checked="" type="checkbox"/> SPLIT SPOON <input type="checkbox"/> BULK	<input checked="" type="checkbox"/> NO RECOVERY <input type="checkbox"/> CORE

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE #	COMMENTS	ELEVATION (m)
0		ASPHALT (229 mm)				
		SAND (Pit Run) - some gravel (<12 mm dia.), some silt - brown - frozen, moist when thawed - well graded		G337		235
				G338		
		CLAY - silty, some sand, some organics - black - frozen, moist and soft to firm when thawed - intermediate to high plasticity		G339		
1				G340		
		- trace organics, dark grey and black below 1.2 m		G341		234
		CLAY - silty, some sand - brown - frozen to 2.0 m, moist and stiff when thawed - high plasticity		G342		
2				G343		
		SILT - some clay to clayey, trace sand - light brown - wet, soft to firm - low to intermediate plasticity		G344		233
3						
		End of test hole at 3.4 m in SILT Notes: 1) No sloughing. 2) Trace seepage in silt layer. 3) Backfilled test hole with auger cuttings.				232
4						

ENVIRO (VAPOUR/F2/F3) INKSTER WIDENING - EAST.GPJ UMA.GDT 3/9/09

AECOM	LOGGED BY: Geoffrey Nolette	COMPLETION DEPTH: 3.35 m
	REVIEWED BY: Nelson Ferreira	COMPLETION DATE: 1/31/09
	PROJECT ENGINEER: Nelson Ferreira	Page 1 of 1

PROJECT: Inkster Boulevard Widening		CLIENT: City of Winnipeg		TESTHOLE NO: TH-09-25				
LOCATION: N - 5534130.681, E - 628040.626				PROJECT NO.: 0265-411-00				
CONTRACTOR: Paddock Drilling Ltd.		METHOD: Acker SS2 Maruca, 125 mm SSA		ELEVATION (m): 234.693				
SAMPLE TYPE		<input type="checkbox"/> GRAB	<input type="checkbox"/> SHELBY TUBE	<input checked="" type="checkbox"/> SPLIT SPOON	<input type="checkbox"/> BULK	<input checked="" type="checkbox"/> NO RECOVERY	<input type="checkbox"/> CORE	
DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION			SAMPLE TYPE	SAMPLE #	COMMENTS	ELEVATION (m)
0		ORGANICS - topsoil						
		CLAY - silty, trace sand - brown - frozen, moist and soft when thawed - high plasticity				G57		234
						G58		
						G59		
1		CLAY - silty, trace sand, some organics - black - frozen, moist and firm when thawed - intermediate to high plasticity				G60		
		CLAY and SILT - some sand, brown - moist, firm - intermediate plasticity - laminated (<1 mm thick)				G61		
		SILT - some clay, some sand - light brown - moist, very soft to soft - low to intermediate plasticity				G62		233
						G63		
						G64		232
3		CLAY - silty, trace sand - brown - moist, firm - high plasticity						
		End of test hole at 3.1 m in CLAY Notes: 1) No sloughing. 2) No seepage. 3) Backfilled test hole with auger cuttings.						231
4								

ENVIRO (VAPOUR/F2/F3) INKSTER WIDENING - EAST.GPJ UMA.GDT 3/9/08

AECOM

LOGGED BY: Jared Baldwin	COMPLETION DEPTH: 3.05 m
REVIEWED BY: Nelson Ferreira	COMPLETION DATE: 1/22/08
PROJECT ENGINEER: Nelson Ferreira	Page 1 of 1

PROJECT: Inkster Boulevard Widening	CLIENT: City of Winnipeg	TESTHOLE NO: TH-09-26
LOCATION: N - 5534156.725, E - 628141.312		PROJECT NO.: 0265-411-00
CONTRACTOR: Paddock Drilling Ltd.	METHOD: Canterra CT 250, 125 mm SSA	ELEVATION (m): 234.884
SAMPLE TYPE	<input checked="" type="checkbox"/> GRAB	<input type="checkbox"/> SHELBY TUBE
	<input checked="" type="checkbox"/> SPLIT SPOON	<input type="checkbox"/> BULK
	<input checked="" type="checkbox"/> NO RECOVERY	<input type="checkbox"/> CORE

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE #	COMMENTS	ELEVATION (m)
0		ASPHALT (178 mm)				
		SAND (Pit Run) - some gravel (<12 mm dia.), some silt - light brown - frozen, moist when thawed - well graded	<input checked="" type="checkbox"/>	G321		
			<input checked="" type="checkbox"/>	G322		
		CLAY - silty, some sand, some organics - black - frozen to 1.5 m, moist and soft to firm when thawed - intermediate to high plasticity	<input checked="" type="checkbox"/>	G323	Gradation: Sand = 14.3%, Silt = 44.0%, Clay = 41.8%	234
		- trace silt inclusions (<3 mm dia.) below 1.2 m	<input checked="" type="checkbox"/>	G324		
			<input checked="" type="checkbox"/>	G325		
			<input checked="" type="checkbox"/>	G326		
		SILT - some clay, trace sand - light brown - moist to wet, soft to firm - low to intermediate plasticity	<input checked="" type="checkbox"/>	G327		233
		CLAY - silty, some sand - brown - moist, firm to stiff - high plasticity	<input checked="" type="checkbox"/>	G328		232
3		End of test hole at 3.1 m in CLAY Notes: 1) No sloughing. 2) No seepage. 3) Backfilled test hole with auger cuttings.				231
4						

ENVIRO (VAPOUR/F2/F3) INKSTER WIDENING - EAST.GPJ UMA.GDT 3/9/09

AECOM	LOGGED BY: Geoffrey Nolette	COMPLETION DEPTH: 3.05 m
	REVIEWED BY: Nelson Ferreira	COMPLETION DATE: 1/31/09
	PROJECT ENGINEER: Nelson Ferreira	Page 1 of 1

PROJECT: Inkster Boulevard Widening		CLIENT: City of Winnipeg		TESTHOLE NO: TH-09-27		
LOCATION: N - 5534132.840, E - 628186.686				PROJECT NO.: 0265-411-00		
CONTRACTOR: Paddock Drilling Ltd.			METHOD: Acker SS2 Maruca, 125 mm SSA		ELEVATION (m): 233.992	
SAMPLE TYPE <input checked="" type="checkbox"/> GRAB <input type="checkbox"/> SHELBY TUBE <input checked="" type="checkbox"/> SPLIT SPOON <input type="checkbox"/> BULK <input checked="" type="checkbox"/> NO RECOVERY <input type="checkbox"/> CORE						
DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE #	COMMENTS	ELEVATION (m)
0		ORGANICS - topsoil				
		CLAY - silty, trace sand - brown - frozen, moist and firm when thawed - high plasticity		G65		
		CLAY - silty, sandy, some organics - black - frozen, moist and firm when thawed - high plasticity		G66		
		SILT - some clay to clayey, some sand, light grey, moist, firm, low to intermediate plasticity - light brown below 0.9 m		G67		
		- brownish-orange below 1.2 m		G68		
				G69		
		CLAY - silty, trace sand - brown - moist, very stiff - high plasticity		G70		
		- trace silt inclusions (<3 mm dia.), stiff below 2.1 m		G71		
		- 0.15 m silt lense at 2.6 m		G72		
		- firm to stiff below 2.7 m				
3		End of test hole at 3.1 m in CLAY Notes: 1) No sloughing. 2) No seepage. 3) Backfilled test hole with auger cuttings.				
4						
AECOM			LOGGED BY: Jared Baldwin		COMPLETION DEPTH: 3.05 m	
			REVIEWED BY: Nelson Ferreira		COMPLETION DATE: 1/22/08	
			PROJECT ENGINEER: Nelson Ferreira		Page 1 of 1	

ENVIRO (VAPOUR/F2/F3) INKSTER WIDENING - EAST.GPJ UMA.GDT 3/19/09

Gradation:
Sand = 20.6%, Silt = 35.3%, Clay = 44.1%

233

232

231

PROJECT: Inkster Boulevard Widening	CLIENT: City of Winnipeg	TESTHOLE NO: TH-09-28
LOCATION: N - 5534132.430, E - 628207.508		PROJECT NO.: 0265-411-00
CONTRACTOR: Paddock Drilling Ltd.	METHOD: Bratt 22, 125 mm SSA	ELEVATION (m): 234.474
SAMPLE TYPE	<input checked="" type="checkbox"/> GRAB <input type="checkbox"/> SHELBY TUBE <input checked="" type="checkbox"/> SPLIT SPOON <input type="checkbox"/> BULK	<input checked="" type="checkbox"/> NO RECOVERY <input type="checkbox"/> CORE

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE #	COMMENTS	ELEVATION (m)
0		ASPHALT (114 mm)				
		SAND (Pit Run) - some gravel (<12 mm dia.), brown, frozen, moist when thawed, well graded		G209		
		CLAY - silty, sandy, trace gravel (<6 mm dia.) - brown - frozen to 1.5 m, moist and soft to firm when thawed - high plasticity		G210		234
1		- firm when thawed below 1.2 m		G211		
				G212		
				G213		233
				G214		
2		- trace silt inclusions (<5 mm dia.), trace sand inclusions (<5 mm dia.), stiff below 1.8 m		G215		
				G216		232
3		End of test hole at 3.1 m in CLAY				
		Notes: 1) No sloughing. 2) No seepage. 3) Backfilled test hole with auger cuttings.				231
4						

ENVIRO (VAPOUR/F2/F3) INKSTER WIDENING - EAST.GPJ UMA.GDT 3/9/09

AECOM	LOGGED BY: Geoffrey Nolette	COMPLETION DEPTH: 3.05 m
	REVIEWED BY: Nelson Ferreira	COMPLETION DATE: 1/28/09
	PROJECT ENGINEER: Nelson Ferreira	Page 1 of 1

PROJECT: Inkster Boulevard Widening	CLIENT: City of Winnipeg	TESTHOLE NO: TH-09-29
LOCATION: N - 5534158.426, E - 628208.809		PROJECT NO.: 0265-411-00
CONTRACTOR: Paddock Drilling Ltd.	METHOD: Canterra CT 250, 125 mm SSA	ELEVATION (m): 234.815
SAMPLE TYPE	<input checked="" type="checkbox"/> GRAB <input type="checkbox"/> SHELBY TUBE <input checked="" type="checkbox"/> SPLIT SPOON <input type="checkbox"/> BULK	<input checked="" type="checkbox"/> NO RECOVERY <input type="checkbox"/> CORE

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE #	COMMENTS	ELEVATION (m)
0		ASPHALT (178 mm)				
		SAND (Fill) - trace gravel (<6 mm dia.), trace silt - light brown - frozen, moist when thawed - well graded		G329		
				G330		
		CLAY - silty, some sand, some organics - black - frozen, moist and soft when thawed - intermediate to high plasticity		G331		234
				G332		
				G333		
		SILT - some sand, trace to some clay - light brown - frozen to 1.8 m, moist and soft to firm when thawed - low to intermediate plasticity		G334		233
				G335		
		CLAY - silty, some sand, trace silt inclusions (<3 mm dia.) - brown - moist, stiff - high plasticity		G336		232
3		End of test hole at 3.1 m in CLAY Notes: 1) No sloughing. 2) No seepage. 3) Backfilled test hole with auger cuttings.				
4						231

ENVIRO (VAPOUR/FZ/F3) INKSTER WIDENING - EAST.GPJ UMA.GDT 3/9/09

AECOM

LOGGED BY: Geoffrey Nolette	COMPLETION DEPTH: 3.05 m
REVIEWED BY: Nelson Ferreira	COMPLETION DATE: 1/31/09
PROJECT ENGINEER: Nelson Ferreira	Page 1 of 1

PROJECT: Inkster Boulevard Widening	CLIENT: City of Winnipeg	TESTHOLE NO: TH-09-30
LOCATION: N - 5534141.000, E - 628244.818		PROJECT NO.: 0265-411-00
CONTRACTOR: Paddock Drilling Ltd.	METHOD: Acker SS2 Maruca, 125 mm SSA	ELEVATION (m): 233.984
SAMPLE TYPE	<input checked="" type="checkbox"/> GRAB	<input type="checkbox"/> SHELBY TUBE
	<input checked="" type="checkbox"/> SPLIT SPOON	<input type="checkbox"/> BULK
	<input checked="" type="checkbox"/> NO RECOVERY	<input type="checkbox"/> CORE

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE #	COMMENTS	ELEVATION (m)
0		ORGANICS - topsoil				
		CLAY - silty, some sand, some organics, black - frozen, moist and soft when thawed - intermediate to high plasticity		G73		
		CLAY - silty, trace sand - light brown and brown - frozen, moist and soft to firm when thawed - high plasticity		G74		
		- trace silt inclusions (<5 mm dia.) below 0.9 m		G75		
1				G76		233
		SILT - some clay, trace sand - light brown - frozen to 1.5 m, moist and very soft when thawed - low to intermediate plasticity		G77		
		- 0.08 clay lense at 2.0 m		G78		
2				G79		232
		- 0.08 m clay lense at 2.6 m		G80		
3		End of test hole at 3.1 m in CLAY Notes: 1) No sloughing. 2) No seepage. 3) Backfilled test hole with auger cuttings.				231
4						

ENVIRO (VAPOUR/FZ/F3) INKSTER WIDENING - EAST.GPJ UMA.GDT 3/9/09

AECOM	LOGGED BY: Jared Baldwin	COMPLETION DEPTH: 3.05 m
	REVIEWED BY: Nelson Ferreira	COMPLETION DATE: 1/23/08
	PROJECT ENGINEER: Nelson Ferreira	Page 1 of 1

PROJECT: Inkster Boulevard Widening	CLIENT: City of Winnipeg	TESTHOLE NO: TH-09-31
LOCATION: N - 5534161.140, E - 628322.72		PROJECT NO.: 0265-411-00
CONTRACTOR: Paddock Drilling Ltd.	METHOD: Canterra CT 250, 125 mm SSA	ELEVATION (m): 234.731
SAMPLE TYPE	<input checked="" type="checkbox"/> GRAB <input type="checkbox"/> SHELBY TUBE <input checked="" type="checkbox"/> SPLIT SPOON <input type="checkbox"/> BULK	<input checked="" type="checkbox"/> NO RECOVERY <input type="checkbox"/> CORE

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE #	COMMENTS	ELEVATION (m)
0		ASPHALT (178 mm)				
		SAND (Fill) - some clay, some silt, some gravel (<12 mm dia.), light brown and brown, frozen, moist to wet when thawed, well graded		G313		
		SAND and CLAY (Fill) - silty, some gravel (<12 mm dia.) - brown - frozen, moist and firm when thawed - intermediate to high plasticity		G314		
		CLAY - silty, some sand, some organics - black - frozen, moist and firm when thawed - intermediate to high plasticity		G315		234
1		CLAY and SILT - some sand - light brown - frozen, moist and firm when thawed - intermediate plasticity		G316		
		CLAY and SILT - some sand - light brown - frozen, moist and firm when thawed - intermediate plasticity		G317		
		CLAY and SILT - some sand - light brown - frozen, moist and firm when thawed - intermediate plasticity		G318		233
2		SILT - some clay to clayey - light brown - moist to wet, soft - low to intermediate plasticity		G319		
		CLAY - silty, some sand, trace silt inclusions (<5 mm dia.) - brown - moist, stiff - high plasticity		G320		232
3		End of test hole at 3.1 m in CLAY Notes: 1) No sloughing. 2) No seepage. 3) Backfilled test hole with auger cuttings.				
4						231

ENVIRO (VAPOUR/E2/F3) INKSTER WIDENING - EAST GPJ UMA.GDT. 3/31/09

AECOM

LOGGED BY: Geoffrey Nolette	COMPLETION DEPTH: 3.05 m
REVIEWED BY: Nelson Ferreira	COMPLETION DATE: 1/31/09
PROJECT ENGINEER: Nelson Ferreira	Page 1 of 1

PROJECT: Inkster Boulevard Widening	CLIENT: City of Winnipeg	TESTHOLE NO: TH-09-32
LOCATION: N - 5534145.612, E - 628393.463		PROJECT NO.: 0265-411-00
CONTRACTOR: Paddock Drilling Ltd.	METHOD: Acker SS2 Maruca, 125 mm SSA	ELEVATION (m): 233.773
SAMPLE TYPE	<input checked="" type="checkbox"/> GRAB	<input type="checkbox"/> SHELBY TUBE
	<input checked="" type="checkbox"/> SPLIT SPOON	<input type="checkbox"/> BULK
	<input checked="" type="checkbox"/> NO RECOVERY	<input type="checkbox"/> CORE

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE #	COMMENTS	ELEVATION (m)
0		ORGANICS - topsoil				
		CLAY - silty, some sand, some organics - dark grey - frozen, moist and soft to firm when thawed - intermediate to high plasticity	<input checked="" type="checkbox"/>	G81		
			<input checked="" type="checkbox"/>	G82		
		SILT - some clay to clayey, some sand - light brown - frozen to 0.9 m, moist and very soft when thawed - low to intermediate plasticity	<input checked="" type="checkbox"/>	G83		233
			<input checked="" type="checkbox"/>	G84		
		CLAY - silty, trace sand - brown - moist, firm to stiff - high plasticity	<input checked="" type="checkbox"/>	G85		
			<input checked="" type="checkbox"/>	G86		232
		- trace silt inclusions (<3 mm dia.) below 2.1 m	<input checked="" type="checkbox"/>	G87		
		- 0.03 m silt tense at 2.4 m	<input checked="" type="checkbox"/>	G88		231
3		End of test hole at 3.1 m in CLAY Notes: 1) No sloughing. 2) No seepage. 3) Backfilled test hole with auger cuttings.				230
4						

ENVIRO (VAPOUR/F2/F3) INKSTER WIDENING - EAST.GPJ UMA.GDT 3/9/09

AECOM	LOGGED BY: Jared Baldwin	COMPLETION DEPTH: 3.05 m
	REVIEWED BY: Nelson Ferreira	COMPLETION DATE: 1/23/08
	PROJECT ENGINEER: Nelson Ferreira	Page 1 of

PROJECT: Inkster Boulevard Widening	CLIENT: City of Winnipeg	TESTHOLE NO: TH-09-33
LOCATION: N - 5534163.759, E - 628444.598		PROJECT NO.: 0265-411-00
CONTRACTOR: Paddock Drilling Ltd.	METHOD: Canterra CT 250, 125 mm SSA	ELEVATION (m): 234.661
SAMPLE TYPE	<input checked="" type="checkbox"/> GRAB <input type="checkbox"/> SHELBY TUBE <input checked="" type="checkbox"/> SPLIT SPOON <input type="checkbox"/> BULK	<input checked="" type="checkbox"/> NO RECOVERY <input type="checkbox"/> CORE

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE #	COMMENTS	ELEVATION (m)
0		ASPHALT (152 mm)				
		SAND and CLAY (Fill) - silty, trace gravel (<12 mm dia.) - brown - frozen, moist and firm when thawed - intermediate to high plasticity		G305		
				G306		
		CLAY - silty, some sand, some organics - black - frozen, moist and soft when thawed - intermediate to high plasticity		G307		234
				G308		
		CLAY - silty, some sand - brown - frozen to 1.8 m, moist and stiff when thawed - high plasticity		G309		
				G310		233
		- trace silt inclusions (<5 mm dia.) below 1.8 m		G311		
				G312		
		CLAY and SILT - some sand - mottled brown and light brown - moist, soft to firm - intermediate plasticity				232
3		End of test hole at 4.0 m in CLAY and SILT Notes: 1) No sloughing. 2) No seepage. 3) Backfilled test hole with auger cuttings.				
4						231

ENVIRO (VAPOUR/F2/F3) INKSTER WIDENING - EAST.GPJ UMA.GDT 3/9/09

AECOM

LOGGED BY: Geoffrey Nolette	COMPLETION DEPTH: 3.05 m
REVIEWED BY: Nelson Ferreira	COMPLETION DATE: 1/31/09
PROJECT ENGINEER: Nelson Ferreira	Page 1 of 1

PROJECT: Inkster Boulevard Widening	CLIENT: City of Winnipeg	TESTHOLE NO: TH-09-34
LOCATION: N - 5534140.016, E - 628525.059		PROJECT NO.: 0265-411-00
CONTRACTOR: Paddock Drilling Ltd.	METHOD: Acker SS2 Maruca, 125 mm SSA	ELEVATION (m): 234.33
SAMPLE TYPE	<input checked="" type="checkbox"/> GRAB	<input type="checkbox"/> SHELBY TUBE
	<input checked="" type="checkbox"/> SPLIT SPOON	<input type="checkbox"/> BULK
	<input checked="" type="checkbox"/> NO RECOVERY	<input type="checkbox"/> CORE

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE #	COMMENTS	ELEVATION (m)
0		ORGANICS - topsoil				
		CLAY - silty, trace sand, trace silt inclusions (<5 mm dia.) - brown - frozen, moist and soft to firm when thawed - high plasticity	<input checked="" type="checkbox"/>	G89		234
			<input checked="" type="checkbox"/>	G90		
		CLAY and SILT - some sand - light brown - frozen, moist and firm when thawed - intermediate plasticity	<input checked="" type="checkbox"/>	G91	Gradation: Sand = 12.5%, Silt = 43.5%, Clay = 34.1%	
		CLAY - silty, some sand, some organics - black - frozen, moist and firm when thawed - intermediate to high plasticity	<input checked="" type="checkbox"/>	G92		233
		CLAY and SILT - some sand - light brown - frozen to 1.8 m, moist and soft to firm when thawed - intermediate plasticity	<input checked="" type="checkbox"/>	G93		
			<input checked="" type="checkbox"/>	G94		
		CLAY - silty, some sand, trace silt inclusions (<3 mm dia.) - brown - moist, firm to stiff - high plasticity	<input checked="" type="checkbox"/>	G95		232
			<input checked="" type="checkbox"/>	G96		
3		End of test hole at 3.1 m in CLAY Notes: 1) No sloughing. 2) No seepage. 3) Backfilled test hole with auger cuttings.				231
4						

ENVIRO (VAPOUR/F3) INKSTER WIDENING - EAST.GPJ UMA.GDT 3/9/09

AECOM	LOGGED BY: Jared Baldwin	COMPLETION DEPTH: 3.05 m
	REVIEWED BY: Nelson Ferreira	COMPLETION DATE: 1/23/08
	PROJECT ENGINEER: Nelson Ferreira	Page 1 of 1

PROJECT: Inkster Boulevard Widening		CLIENT: City of Winnipeg		TESTHOLE NO: TH-09-35			
LOCATION: N - 5534166.192, E - 628564.214 - on shoulder				PROJECT NO.: 0265-411-00			
CONTRACTOR: Paddock Drilling Ltd.		METHOD: Canterra CT 250, 125 mm SSA		ELEVATION (m): 234.566			
SAMPLE TYPE <input checked="" type="checkbox"/> GRAB <input type="checkbox"/> SHELBY TUBE <input checked="" type="checkbox"/> SPLIT SPOON <input type="checkbox"/> BULK <input checked="" type="checkbox"/> NO RECOVERY <input type="checkbox"/> CORE							
DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION		SAMPLE TYPE	SAMPLE #	COMMENTS	ELEVATION (m)
0		ASPHALT (254 mm)					
		SAND and GRAVEL (Fill) - some silt, light brown, frozen, moist when thawed, well graded			G297		
		SAND and CLAY (Fill) - silty, trace gravel (<6 mm dia.), dark grey and brown, frozen, dry to moist and firm when thawed, - intermediate to high plasticity			G298		
		CLAY - silty, some sand, some organics - black - frozen, moist and firm when thawed - intermediate to high plasticity			G299		
		CLAY and SILT - sandy - grey - frozen, moist and soft when thawed - intermediate to high plasticity			G300		
					G301	Gradation: Sand = 23.1%, Silt = 41.1%, Clay = 35.7%	
		SILT - some clay to clayey - light brown - frozen to 1.8 m, moist to wet and soft when thawed - low to intermediate plasticity			G302		
					G303		
		CLAY - silty, some sand - brown - moist, stiff - high plasticity			G304		
3		End of test hole at 3.1 m in CLAY Notes: 1) No sloughing. 2) No seepage. 3) Backfilled test hole with auger cuttings.					

ENVIRO (VAPOUR/FZ/F3). INKSTER WIDENING - EAST.GPJ UIMA.GDT 3/8/09

AECOM

LOGGED BY: Geoffrey Nolette	COMPLETION DEPTH: 3.05 m
REVIEWED BY: Nelson Ferreira	COMPLETION DATE: 1/31/09
PROJECT ENGINEER: Nelson Ferreira	Page 1 of 1

PROJECT: Inkster Boulevard Widening	CLIENT: City of Winnipeg	TESTHOLE NO: TH-09-36
LOCATION: N - 5534160.167, E - 628607.788		PROJECT NO.: 0265-411-00
CONTRACTOR: Paddock Drilling Ltd.	METHOD: Bratt 22, 125 mm SSA	ELEVATION (m): 234.481
SAMPLE TYPE	<input checked="" type="checkbox"/> GRAB <input type="checkbox"/> SHELBY TUBE <input checked="" type="checkbox"/> SPLIT SPOON <input type="checkbox"/> BULK	<input checked="" type="checkbox"/> NO RECOVERY <input type="checkbox"/> CORE

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE #	COMMENTS	ELEVATION (m)
0		ASPHALT (254 mm)				
		SAND (Pit Run) - gravelly (<19 mm dia.) - brown - frozen, moist when thawed - well graded		G241		234
				G242		
		CLAY - silty, some sand, some organics, trace gravel (<6 mm dia.) - dark grey and black - frozen, moist and firm when thawed - intermediate to high plasticity		G243		
				G244		
				G245		233
		SILT - clayey, trace sand - light brown and light grey - moist, firm - low to intermediate plasticity		G246		
				G247		232
		CLAY - some silt, trace sand inclusions (<3 mm dia.) - brown and light brown - moist, stiff - high plasticity		G248		
		End of test hole at 3.1 m in CLAY Notes: 1) No sloughing. 2) No seepage. 3) Backfilled test hole with auger cuttings.			Gradation: Sand = 2.1 %, Silt = 18.9%, Clay = 79.0%	231
4						

ENVIRO (VAPOUR/F2/F3) INKSTER WIDENING - EAST.GPJ UMA.GDT 3/9/09

AECOM	LOGGED BY: Geoffrey Nolette	COMPLETION DEPTH: 3.05 m
	REVIEWED BY: Nelson Ferreira	COMPLETION DATE: 1/28/09
	PROJECT ENGINEER: Nelson Ferreira	Page 1 of 1

PROJECT: Inkster Boulevard Widening	CLIENT: City of Winnipeg	TESTHOLE NO: TH-09-37
LOCATION: N - 5534201.353, E - 628648.996		PROJECT NO.: 0265-411-00
CONTRACTOR: Paddock Drilling Ltd.	METHOD: Bratt 22, 125 mm SSA	ELEVATION (m): 233.447
SAMPLE TYPE	<input checked="" type="checkbox"/> GRAB	<input type="checkbox"/> SHELBY TUBE
	<input checked="" type="checkbox"/> SPLIT SPOON	<input type="checkbox"/> BULK
	<input checked="" type="checkbox"/> NO RECOVERY	<input type="checkbox"/> CORE

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE #	COMMENTS	ELEVATION (m)
0		ASPHALT (101 mm)				233
		SAND (Fill) - some gravel (<12 mm dia.), some silt - light brown - frozen, moist when thawed - well graded - brown and grey below 0.5 m		G225		
				G226		
		CLAY - silty, some sand - brown - frozen to 1.5 m, moist and soft to firm when thawed - high plasticity - trace precipitates (<5 mm dia.) below 1.2 m - trace silt inclusions (<5 mm dia.), stiff below 1.5 m		G227		
				G228		
				G229		232
				G230		
				G231		
		- 0.10 m silt pocket at 2.1 m		G232		231
3		End of test hole at 3.1 m in CLAY Notes: 1) No sloughing. 2) No seepage. 3) Backfilled test hole with auger cuttings.				230
4						

ENVIRO (VAPOUR/FZIF3) INKSTER WIDENING - EAST.GPJ UMA.GDT 3/9/09

AECOM

LOGGED BY: Geoffrey Nolette	COMPLETION DEPTH: 3.05 m
REVIEWED BY: Nelson Ferreira	COMPLETION DATE: 1/29/09
PROJECT ENGINEER: Nelson Ferreira	Page 1 of 1

PROJECT: Inkster Boulevard Widening	CLIENT: City of Winnipeg	TESTHOLE NO: TH-09-38
LOCATION: N - 5534133.763, E - 628658.208		PROJECT NO.: 0265-411-00
CONTRACTOR: Paddock Drilling Ltd.	METHOD: Canterra CT 250, 125 mm SSA	ELEVATION (m): 233.575
SAMPLE TYPE	<input type="checkbox"/> GRAB	<input type="checkbox"/> SHELBY TUBE
	<input checked="" type="checkbox"/> SPLIT SPOON	<input type="checkbox"/> BULK
	<input checked="" type="checkbox"/> NO RECOVERY	<input type="checkbox"/> CORE

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE #	COMMENTS	ELEVATION (m)
0	<input checked="" type="checkbox"/>	ASPHALT (114 mm)				233.575
1						232
2						231
3						230
4						

ENVIRO (VAPOUR/F2F3) INKSTER WIDENING - EAST.GPJ UMA.GDT 3/9/09

AECOM	LOGGED BY: Geoffrey Nolette	COMPLETION DEPTH: 0.12 m
	REVIEWED BY: Nelson Ferreira	COMPLETION DATE: 1/29/09
	PROJECT ENGINEER: Nelson Ferreira	Page 1 of 1

PROJECT: Inkster Boulevard Widening	CLIENT: City of Winnipeg	TESTHOLE NO: TH-09-39
LOCATION: N - 5534164.271, E - 628702.969		PROJECT NO.: 0265-411-00
CONTRACTOR: Paddock Drilling Ltd.	METHOD: Canterra CT 250, 125 mm SSA	ELEVATION (m): 234.392
SAMPLE TYPE	<input checked="" type="checkbox"/> GRAB <input type="checkbox"/> SHELBY TUBE <input checked="" type="checkbox"/> SPLIT SPOON <input type="checkbox"/> BULK	<input checked="" type="checkbox"/> NO RECOVERY <input type="checkbox"/> CORE






DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE #	COMMENTS	ELEVATION (m)
0		ASPHALT (127 mm)				
		SAND (Fill) - some gravel (<12 mm dia.), trace silt - brown - frozen, moist when thawed - well graded		G217		234
				G218		
		CLAY - silty, some sand, some organics - black - frozen, moist and soft when thawed - intermediate to high plasticity		G219		
				G220		
		CLAY and SILT - some sand - light brown - frozen, moist and soft when thawed - intermediate plasticity		G221		233
		SILT - some clay, some sand - light brown - wet, firm - low to intermediate plasticity		G222		
				G223		232
		CLAY - silty, some sand - brown - moist, stiff - high plasticity		G224		
3		End of test hole at 3.1 m in CLAY Notes: 1) No sloughing. 2) No seepage. 3) Backfilled test hole with auger cuttings.				231
4						

ENVIRO (VAPOUR/F2/F3) INKSTER WIDENING - EAST.GPJ UMA.GDT 3/9/09

AECOM

LOGGED BY: Geoffrey Nolette	COMPLETION DEPTH: 3.05 m
REVIEWED BY: Nelson Ferreira	COMPLETION DATE: 1/28/09
PROJECT ENGINEER: Nelson Ferreira	Page 1 of 1

PROJECT: Inkster Boulevard Widening	CLIENT: City of Winnipeg	TESTHOLE NO: TH-09-40
LOCATION: N - 5534144.660, E - 628749.312	PROJECT NO.: 0265-411-00	
CONTRACTOR: Paddock Drilling Ltd.	METHOD: Acker SS2 Maruca, 125 mm SSA	ELEVATION (m): 234.219
SAMPLE TYPE <input checked="" type="checkbox"/> GRAB	<input type="checkbox"/> SHELBY TUBE	<input checked="" type="checkbox"/> SPLIT SPOON
<input type="checkbox"/> BULK	<input checked="" type="checkbox"/> NO RECOVERY	
<input type="checkbox"/> CORE		

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE #	COMMENTS	ELEVATION (m)
0		ORGANICS - topsoil				
		CLAY - silty, some sand, some gravel (<10 mm dia.) - brown - frozen, moist and soft to firm when thawed - high plasticity - trace gravel (<10 mm dia.), stiff below 0.8 m - 0.03 m silt pocket at 1.1 m	<input checked="" type="checkbox"/>	G97 G98 G99 G100		234
		CLAY and SILT - some sand, trace organics - grey and brown - frozen, moist and soft when thawed - intermediate plasticity	<input checked="" type="checkbox"/>	G101		233
		SILT - some clay, some sand - light brown - moist, very soft to soft - low to intermediate plasticity - clayey below 2.3 m - soft to firm below 2.6 m	<input checked="" type="checkbox"/>	G102 G103 G104		232
		CLAY - silty, trace sand - brown - moist, stiff - high plasticity	<input checked="" type="checkbox"/>			
3		End of test hole at 3.1 m in CLAY Notes: 1) No sloughing. 2) No seepage. 3) Backfilled test hole with auger cuttings.				231
4						

ENVIRO (NAPOUR/F2/F3) INKSTER WIDENING - EAST.GPJ UMA.GDT 3/9/08

AECOM	LOGGED BY: Jared Baldwin	COMPLETION DEPTH: 3.05 m
	REVIEWED BY: Nelson Ferreira	COMPLETION DATE: 1/23/08
	PROJECT ENGINEER: Nelson Ferreira	Page 1 of 1

PROJECT: Inkster Boulevard Widening	CLIENT: City of Winnipeg	TESTHOLE NO: TH-09-41
LOCATION: N - 5534171.623, E - 628781.120		PROJECT NO.: 0265-411-00
CONTRACTOR: Paddock Drilling Ltd.	METHOD: Canterra CT 250, 125 mm SSA	ELEVATION (m): 234.188
SAMPLE TYPE	<input type="checkbox"/> GRAB	<input type="checkbox"/> SHELBY TUBE
	<input checked="" type="checkbox"/> SPLIT SPOON	<input type="checkbox"/> BULK
	<input checked="" type="checkbox"/> NO RECOVERY	<input type="checkbox"/> CORE

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE #	COMMENTS	ELEVATION (m)
0		ASPHALT (254 mm)				234
		SAND (Fill) - silty, some gravel (<12 mm dia.), trace clay, light brown, frozen, wet when thawed, poorly graded		G289		
		CLAY and SILT - sandy, trace gravel (<6 mm dia.) - light brown - frozen, moist and soft to firm when thawed - intermediate plasticity		G290		
		CLAY - silty, some sand, some organics - black - frozen to 1.7 m, moist and soft when thawed - intermediate to high plasticity		G291	Gradation: Gravel = 2.1%, Sand = 37.8%, Silt = 31.5%, Clay = 28.6%	
		CLAY - silty, some sand, some organics - black - frozen to 1.7 m, moist and soft when thawed - intermediate to high plasticity		G292		233
		CLAY - silty, some sand, some organics - black - frozen to 1.7 m, moist and soft when thawed - intermediate to high plasticity		G293		
		CLAY - silty, some sand, some organics - black - frozen to 1.7 m, moist and soft when thawed - intermediate to high plasticity		G294		
		SILT - clayey, trace sand - light brown - moist, soft - low to intermediate plasticity		G295		232
		CLAY - silty, trace sand, trace silt inclusions (<5 mm dia.) - brown - moist, stiff - high plasticity		G296		
3		End of test hole at 3.1 in CLAY Notes: 1) No sloughing. 2) No seepage. 3) Backfilled test hole with auger cuttings.				231
4						

ENVIRO (VAPOUR/F2/F3) INKSTER WIDENING - EAST.GPJ UMA.GDT 3/9/09

AECOM

LOGGED BY: Geoffrey Nolette	COMPLETION DEPTH: 3.05 m
REVIEWED BY: Nelson Ferreira	COMPLETION DATE: 1/31/09
PROJECT ENGINEER: Nelson Ferreira	Page 1 of 1

PROJECT: Inkster Boulevard Widening	CLIENT: City of Winnipeg	TESTHOLE NO: TH-09-42
LOCATION: N - 5534156.360, E - 628859.754		PROJECT NO.: 0265-411-00
CONTRACTOR: Paddock Drilling Ltd.	METHOD: Acker SS2 Maruca, 125 mm SSA	ELEVATION (m): 232.963
SAMPLE TYPE	<input type="checkbox"/> GRAB <input type="checkbox"/> SHELBY TUBE <input checked="" type="checkbox"/> SPLIT SPOON <input type="checkbox"/> BULK	<input checked="" type="checkbox"/> NO RECOVERY <input type="checkbox"/> CORE

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE #	COMMENTS	ELEVATION (m)
0		ORGANICS - topsoil				
		CLAY - silty, some sand - brown - frozen, moist and soft when thawed - high plasticity		G105		
				G106		
		CLAY - silty, some sand, some organics, black, frozen, moist and soft when thawed, intermediate to high plasticity		G107		
1		CLAY - silty - brown and light brown - moist, firm - intermediate to high plasticity		G108		
		- trace sand, brown, high plasticity below 1.4 m		G109		
				G110		
2		- trace silt inclusions (<3 mm dia.) below 1.8 m		G111		232
		- firm to stiff below 2.1 m		G112		
						231
3		- mottled brown and grey, soft to firm below 2.7 m				
		End of test hole at 3.1 m in CLAY Notes: 1) No sloughing. 2) No seepage. 3) Backfilled test hole with auger cuttings.				230
4						229

ENVIRO (VAPOUR/F2/F3) INKSTER WIDENING - EAST GPJ UMA.GDT 3/9/09

AECOM	LOGGED BY: Jared Baldwin	COMPLETION DEPTH: 3.05 m
	REVIEWED BY: Nelson Ferreira	COMPLETION DATE: 1/23/08
	PROJECT ENGINEER: Nelson Ferreira	Page 1 of 1

PROJECT: Inkster Boulevard Widening	CLIENT: City of Winnipeg	TESTHOLE NO: TH-09-43
LOCATION: N - 5534175.255, E - 628922.481		PROJECT NO.: 0265-411-00
CONTRACTOR: Paddock Drilling Ltd.	METHOD: Canterra CT 250, 125 mm SSA	ELEVATION (m): 233.891
SAMPLE TYPE	<input checked="" type="checkbox"/> GRAB <input type="checkbox"/> SHELBY TUBE <input checked="" type="checkbox"/> SPLIT SPOON <input type="checkbox"/> BULK	<input checked="" type="checkbox"/> NO RECOVERY <input type="checkbox"/> CORE

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE #	COMMENTS	ELEVATION (m)
0		ASPHALT (203 mm)				
		SAND (Pit Run) - some gravel (<12 mm dia.), some silt - brown - frozen, moist when thawed - well graded		G281		
				G282		
		CLAY - silty, some sand, trace to some organics - black and dark grey - frozen, moist and soft when thawed - intermediate to high plasticity		G283		233
1				G284		
		CLAY - silty, some sand - grey and brown - frozen, moist and firm when thawed - high plasticity - brown below 1.4 m		G285		
		CLAY and SILT - some sand - light brown - moist, soft - intermediate plasticity		G286		
2		SILT - clayey, trace sand - light brown - moist to wet, soft to firm - low to intermediate plasticity		G287		232
				G288		
3		CLAY - silty, some sand - brown - moist, firm - high plasticity				231
		End of test hole at 3.4 m in CLAY Notes: 1) No sloughing. 2) No seepage. 3) Backfilled test hole with auger cuttings.				
4						230

ENVIRO (VAPOUR/F2/F3) INKSTER WIDENING - EAST.GPJ UMA.GDT 3/9/09

AECOM

LOGGED BY: Geoffrey Nolette	COMPLETION DEPTH: 3.35 m
REVIEWED BY: Nelson Ferreira	COMPLETION DATE: 1/31/09
PROJECT ENGINEER: Nelson Ferreira	Page 1 of 1

PROJECT: Inkster Boulevard Widening	CLIENT: City of Winnipeg	TESTHOLE NO: TH-09-44
LOCATION: N - 5534159.275, E - 628989.646		PROJECT NO.: 0265-411-00
CONTRACTOR: Paddock Drilling Ltd.	METHOD: Acker SS2 Maruca, 125 mm SSA	ELEVATION (m): 233.138
SAMPLE TYPE	<input checked="" type="checkbox"/> GRAB	<input type="checkbox"/> SHELBY TUBE
	<input checked="" type="checkbox"/> SPLIT SPOON	<input type="checkbox"/> BULK
	<input checked="" type="checkbox"/> NO RECOVERY	<input type="checkbox"/> CORE

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE #	COMMENTS	ELEVATION (m)
0		ORGANICS - topsoil				233
		CLAY - silty, some organics, trace sand - dark grey - frozen, moist and soft to firm when thawed - intermediate to high plasticity - grey below 0.5 m - mottled grey and brown below 0.8 m	<input checked="" type="checkbox"/>	G113 G114 G115		
1		SILT - some clay to clayey, some sand - light brown - moist, soft - low to intermediate plasticity	<input checked="" type="checkbox"/>	G116 G117 G118		232
2		CLAY - silty, trace sand - brown - moist, firm to stiff - high plasticity - 0.3 m silt lense at 2.3 m - trace silt inclusions (<3 mm dia.), mottled brown and grey below 2.4 m	<input checked="" type="checkbox"/>	G119 G120		231
3		End of test hole at 3.1 m in CLAY Notes: 1) No sloughing. 2) No seepage. 3) Backfilled test hole with auger cuttings.				230
4						

ENVIRO (VAPOUR/F2/F3) INKSTER WIDENING - EAST.GPJ UMA.GDT 3/9/09

AECOM	LOGGED BY: Jared Baldwin	COMPLETION DEPTH: 3.05 m
	REVIEWED BY: Nelson Ferreira	COMPLETION DATE: 1/23/08
	PROJECT ENGINEER: Nelson Ferreira	Page 1 of 1

PROJECT: Inkster Boulevard Widening	CLIENT: City of Winnipeg	TESTHOLE NO: TH-09-45
LOCATION: N - 5534178.480, E - 629051.359		PROJECT NO.: 0265-411-00
CONTRACTOR: Paddock Drilling Ltd.	METHOD: Canterra CT 250, 125 mm SSA	ELEVATION (m): 233.87
SAMPLE TYPE	<input checked="" type="checkbox"/> GRAB <input type="checkbox"/> SHELBY TUBE <input checked="" type="checkbox"/> SPLIT SPOON <input type="checkbox"/> BULK	<input checked="" type="checkbox"/> NO RECOVERY <input type="checkbox"/> CORE

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE #	COMMENTS	ELEVATION (m)
0		ASPHALT (177 mm)				
		SAND (Fill) - some gravel (<12 mm dia.), trace silt - brown - frozen, moist when thawed - well graded		G273		
				G274		
		CLAY - silty, some sand, some organics - black - frozen, moist and firm when thawed - intermediate to high plasticity		G275		233
1		SILT - clayey, trace sand - light grey - moist, soft - low to intermediate plasticity - light brown below 1.4 m		G276		
				G277		
		CLAY and SILT - some sand - light brown and brown - moist, firm - intermediate plasticity		G278		232
2				G278		
		CLAY - silty, some sand, trace silt inclusions (<5 mmd dia.) - brown - moist, firm - high plasticity		G280		231
3						
		End of test hole at 3.1 m in CLAY Notes: 1) No sloughing. 2) No seepage. 3) Backfilled test hole with auger cuttings.				
4						230

ENVIRO (VAPOUR/F2/F3) INKSTER WIDENING - EAST.GPJ UMA.GDT 3/9/09

AECOM

LOGGED BY: Geoffrey Nolette	COMPLETION DEPTH: 3.05 m
REVIEWED BY: Nelson Ferreira	COMPLETION DATE: 1/31/09
PROJECT ENGINEER: Nelson Ferreira	Page 1 of 1

PROJECT: Inkster Boulevard Widening	CLIENT: City of Winnipeg	TESTHOLE NO: TH-09-46
LOCATION: N - 5534162.824, E - 629150.933		PROJECT NO.: 0265-411-00
CONTRACTOR: Paddock Drilling Ltd.	METHOD: Acker SS2 Maruca, 125 mm SSA	ELEVATION (m): 232.763
SAMPLE TYPE	<input type="checkbox"/> GRAB <input type="checkbox"/> SHELBY TUBE <input checked="" type="checkbox"/> SPLIT SPOON <input type="checkbox"/> BULK	<input checked="" type="checkbox"/> NO RECOVERY <input type="checkbox"/> CORE

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE #	COMMENTS	ELEVATION (m)
0		ORGANICS - topsoil				
		CLAY - gravelly (<10 mm dia.), silty, some sand - mottled brown and grey - frozen, moist and soft to firm when thawed - high plasticity	<input checked="" type="checkbox"/>	G121	Gradation: Sand = 15.2%, Silt = 39.1%, Clay = 45.7%	
		- silty, no gravel below 0.6 m	<input checked="" type="checkbox"/>	G122		
		CLAY - silty, some sand, some organics - dark grey - frozen to 0.9 m, moist and stiff when thawed - intermediate to high plasticity	<input checked="" type="checkbox"/>	G123		
			<input checked="" type="checkbox"/>	G124		
		CLAY - silty, trace sand - grey - moist, stiff - high plasticity	<input checked="" type="checkbox"/>	G125		
		- mottled grey and brown below 1.5 m	<input checked="" type="checkbox"/>	G126		
			<input checked="" type="checkbox"/>	G127		
		- 0.03 m silt pocket at 2.4 m	<input checked="" type="checkbox"/>	G128		
		- grey, firm to stiff below 2.7 m				
3		End of test hole at 3.1 m in CLAY Notes: 1) No sloughing. 2) No seepage. 3) Backfilled test hole with auger cuttings.				

ENVIRO (VAPOUR/F2/F3) INKSTER WIDENING - EAST.GPJ UMA.GDT 3/9/09

PROJECT: Inkster Boulevard Widening		CLIENT: City of Winnipeg		TESTHOLE NO: TH-09-47				
LOCATION: N - 5534182.259, E - 629204.804				PROJECT NO.: 0265-411-00				
CONTRACTOR: Paddock Drilling Ltd.			METHOD: Canterra CT 250, 125 mm SSA		ELEVATION (m): 233.313			
SAMPLE TYPE		<input checked="" type="checkbox"/> GRAB	<input type="checkbox"/> SHELBY TUBE	<input checked="" type="checkbox"/> SPLIT SPOON	<input type="checkbox"/> BULK			
				<input checked="" type="checkbox"/> NO RECOVERY	<input type="checkbox"/> CORE			
DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION			SAMPLE TYPE	SAMPLE #	COMMENTS	ELEVATION (m)
0		ASPHALT (127 mm)						
		SAND (Fill) - gravelly (<19 mmd dia.), some silt - light brown - frozen, moist when thawed - well graded				G265		233
						G266		
		CLAY - silty, some sand, some organics - black and dark brown - frozen, moist and firm when thawed - intermediate to high plasticity				G267		
						G268		232
						G269		
		CLAY and SILT - some sand - light brown - moist, firm - intermediate plasticity				G270		
		CLAY - silty, some sand - brown - moist, soft to firm - high plasticity				G271		231
						G272		
		- trace silt inclusions (<5 mm dia.), stiff below 2.7 m						
3		End of test hole at 3.1 m in CLAY Notes: 1) No sloughing. 2) No seepage. 3) Backfilled test hole with auger cuttings.						230
4								
AECOM				LOGGED BY: Geoffrey Nolette		COMPLETION DEPTH: 3.05 m		
				REVIEWED BY: Nelson Ferreira		COMPLETION DATE: 1/31/09		
				PROJECT ENGINEER: Nelson Ferreira		Page 1 of 1		

ENVIRO (VAPOUR/F2/F3) INKSTER WIDENING - EAST.GPJ UMA.GDT 3/9/09












PROJECT: Inkster Boulevard Widening	CLIENT: City of Winnipeg	TESTHOLE NO: TH-09-48
LOCATION: N - 5534163.945, E - 629257.222		PROJECT NO.: 0265-411-00
CONTRACTOR: Paddock Drilling Ltd.	METHOD: Acker SS2 Maruca, 125 mm SSA	ELEVATION (m): 232.188
SAMPLE TYPE	<input type="checkbox"/> GRAB	<input type="checkbox"/> SHELBY TUBE
	<input checked="" type="checkbox"/> SPLIT SPOON	<input type="checkbox"/> BULK
	<input checked="" type="checkbox"/> NO RECOVERY	<input type="checkbox"/> CORE

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE #	COMMENTS	ELEVATION (m)
0		ORGANICS - topsoil				
		CLAY - silty, some sand, trace gravel (<10 mm dia.) - brown - frozen, moist and soft when thawed - high plasticity	<input checked="" type="checkbox"/>	G129		232
		CLAY - silty, some sand, trace organics, dark grey, frozen, moist and soft when thawed, intermediate to high plasticity	<input checked="" type="checkbox"/>	G130		
		CLAY - silty, some sand - brown - frozen to 1.2 m, moist and firm to stiff when thawed - intermediate to high plasticity	<input checked="" type="checkbox"/>	G131		
1		- trace sand below 1.2 m	<input checked="" type="checkbox"/>	G132		231
		- brown, high plasticity below 1.5 m	<input checked="" type="checkbox"/>	G133		
			<input checked="" type="checkbox"/>	G134		
2		- 0.05 m silt pocket at 2.1 m	<input checked="" type="checkbox"/>	G135		230
		- trace silt inclusions (<3 mm dia.) below 2.6 m	<input checked="" type="checkbox"/>	G136		
3		End of test hole at 3.1 m in CLAY Notes: 1) No sloughing. 2) No seepage. 3) Backfilled test hole with auger cuttings.				229
4						

ENVIRO (VAPOUR/F2/F3) INKSTER WIDENING - EAST.GPJ UMA.GDT 3/19/08

AECOM	LOGGED BY: Jared Baldwin	COMPLETION DEPTH: 3.05 m
	REVIEWED BY: Nelson Ferreira	COMPLETION DATE: 1/23/08
	PROJECT ENGINEER: Nelson Ferreira	Page 1 of 1

PROJECT: Inkster Boulevard Widening	CLIENT: City of Winnipeg	TESTHOLE NO: TH-09-49
LOCATION: N - 5534185.627, E - 629354.078		PROJECT NO.: 0265-411-00
CONTRACTOR: Paddock Drilling Ltd.	METHOD: Canterra CT 250, 125 mm SSA	ELEVATION (m): 232.018
SAMPLE TYPE	<input checked="" type="checkbox"/> GRAB <input type="checkbox"/> SHELBY TUBE <input checked="" type="checkbox"/> SPLIT SPOON <input type="checkbox"/> BULK	<input checked="" type="checkbox"/> NO RECOVERY <input type="checkbox"/> CORE

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE #	COMMENTS	ELEVATION (m)	
0		ASPHALT (101 mm)					
		SAND (Limestone) - some gravel to gravelly (<19 mm dia.) - light brown - frozen, moist when thawed - well graded		G257			
				G258			
				G259			
1		CLAY - silty, some sand - brown - frozen to 1.8 m, moist and firm to stiff when thawed - high plasticity		G260	Gradation: Sand = 28.4%, Silt = 56.4%, Clay = 15.2%	231	
				G261			
				G262			
2		- trace silt inclusions (<3 mm dia.) below 1.8 m		G263			230
				G264			
3		- firm below 2.7 m					
3		End of test hole at 3.1 m in CLAY Notes: 1) No sloughing. 2) No seepage. 3) Backfilled test hole with auger cuttings.				229	
4							

ENVIRO (VAPOUR/F2/F3) INKSTER WIDENING - EAST, GP 1, UMA, GDT, 3/8/09

AECOM	LOGGED BY: Geoffrey Nolette	COMPLETION DEPTH: 3.05 m
	REVIEWED BY: Nelson Ferreira	COMPLETION DATE: 1/31/09
	PROJECT ENGINEER: Nelson Ferreira	Page 1 of 1

PROJECT: Inkster Boulevard Widening	CLIENT: City of Winnipeg	TESTHOLE NO: TH-09-50
LOCATION: N - 5534164.611, E - 629371.819		PROJECT NO.: 0265-411-00
CONTRACTOR: Paddock Drilling Ltd.	METHOD: Bratt 22, 125 mm SSA	ELEVATION (m): 232.03
SAMPLE TYPE	<input checked="" type="checkbox"/> GRAB <input type="checkbox"/> SHELBY TUBE <input checked="" type="checkbox"/> SPLIT SPOON <input type="checkbox"/> BULK	<input checked="" type="checkbox"/> NO RECOVERY <input type="checkbox"/> CORE

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE #	COMMENTS	ELEVATION (m)
0		CONCRETE (254 mm)				232
		GRAVEL (Limestone) - some sand, trace silt - light brown - frozen, moist when thawed - well graded - subangular		G233 G234 G235		
1		CLAY - silty, some sand - brown - frozen to 1.5 m, moist and firm when thawed - high plasticity		G236 G237 G238		231
2		- trace silt inclusions (<5 mm dia.), stiff, trace precipitates (<5 mm dia.) below 1.8 m		G239		230
3		- firm below 2.7 m		G240		229
4		End of test hole at 3.1 m in CLAY Notes: 1) No sloughing. 2) No seepage. 3) Backfilled test hole with auger cuttings.				

ENVIRO (VAPOUR/F2/F3) INKSTER WIDENING - EAST GPJ UMA GDT 3/9/09

AECOM	LOGGED BY: Geoffrey Nolette	COMPLETION DEPTH: 3.05 m
	REVIEWED BY: Nelson Ferreira	COMPLETION DATE: 1/28/09
	PROJECT ENGINEER: Nelson Ferreira	Page 1 of 1

Appendix B

Photos of Core Samples



Photo 1: Core sample from TH-09-01



Photo 2: Core sample from TH-09-02

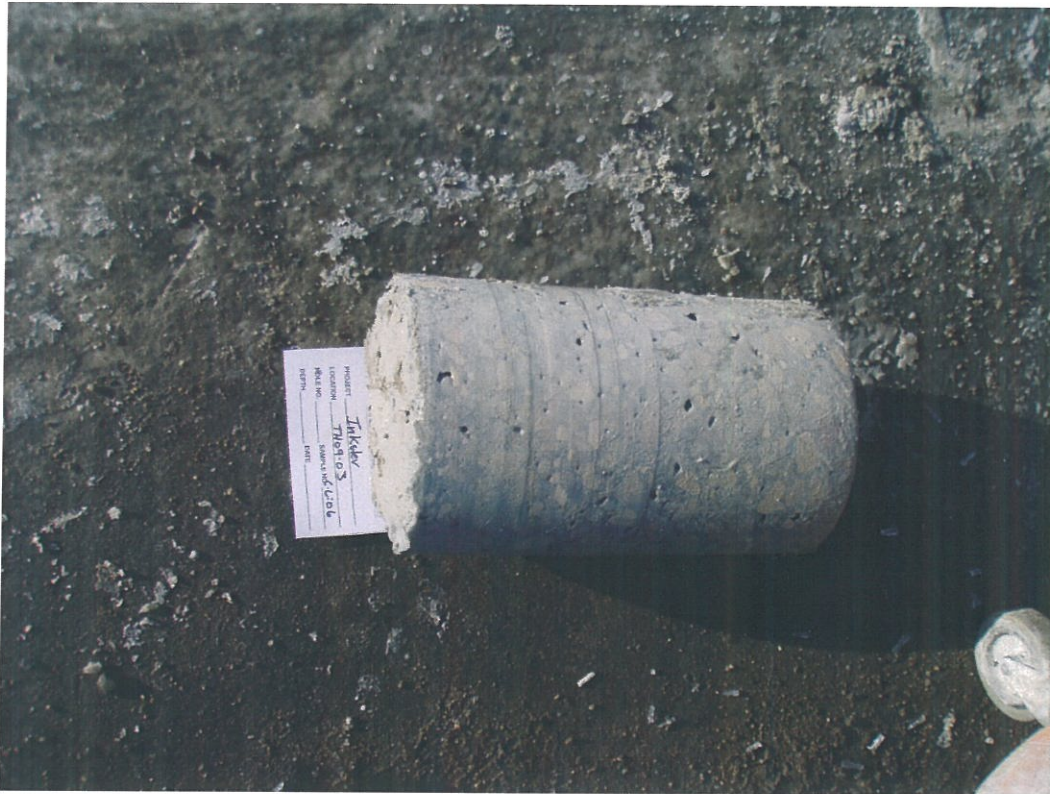


Photo 3: Core sample from TH-09-03



Photo 4: Core sample from TH-09-04



Photo 5: Core sample from TH-09-05

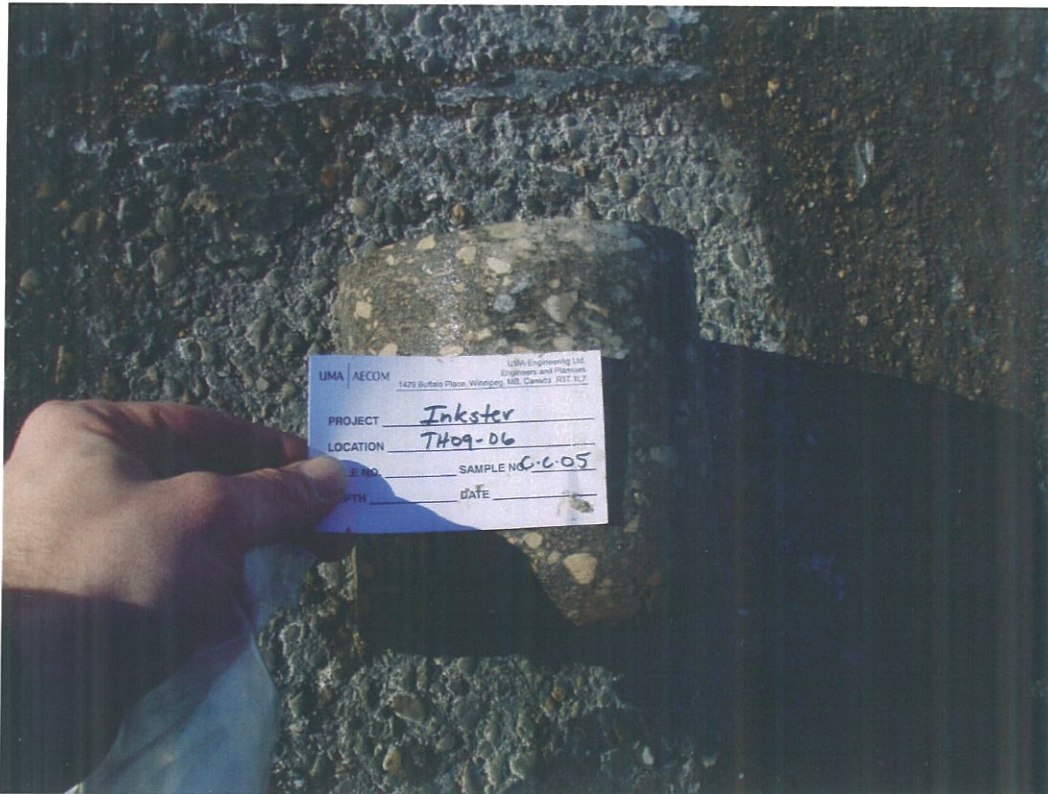


Photo 6: Core sample from TH-09-06



Photo 7: Core sample from TH-09-07

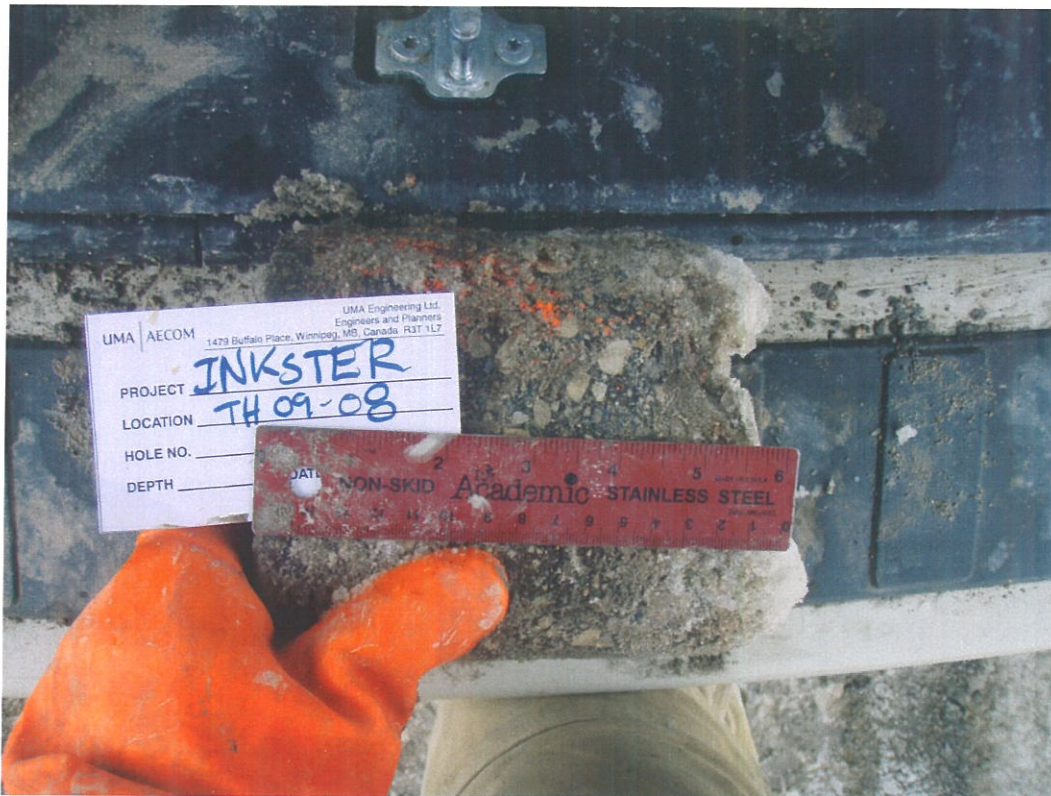


Photo 8: Core sample from TH-09-08



Photo 9: Core sample from TH-09-10



Photo 10: Core sample from TH-09-12



Photo 11: Core sample from TH-09-14



Photo 12: Core sample from TH-09-16



Photo 13: Core sample from TH-09-17



Photo 14: Core sample from TH-09-19



Photo 15: Core sample from TH-09-21



Photo 16: Core sample from TH-09-22



Photo 17: Core sample from TH-09-24



Photo 18: Core sample from TH-09-26



Photo 19: Core sample from TH-09-28

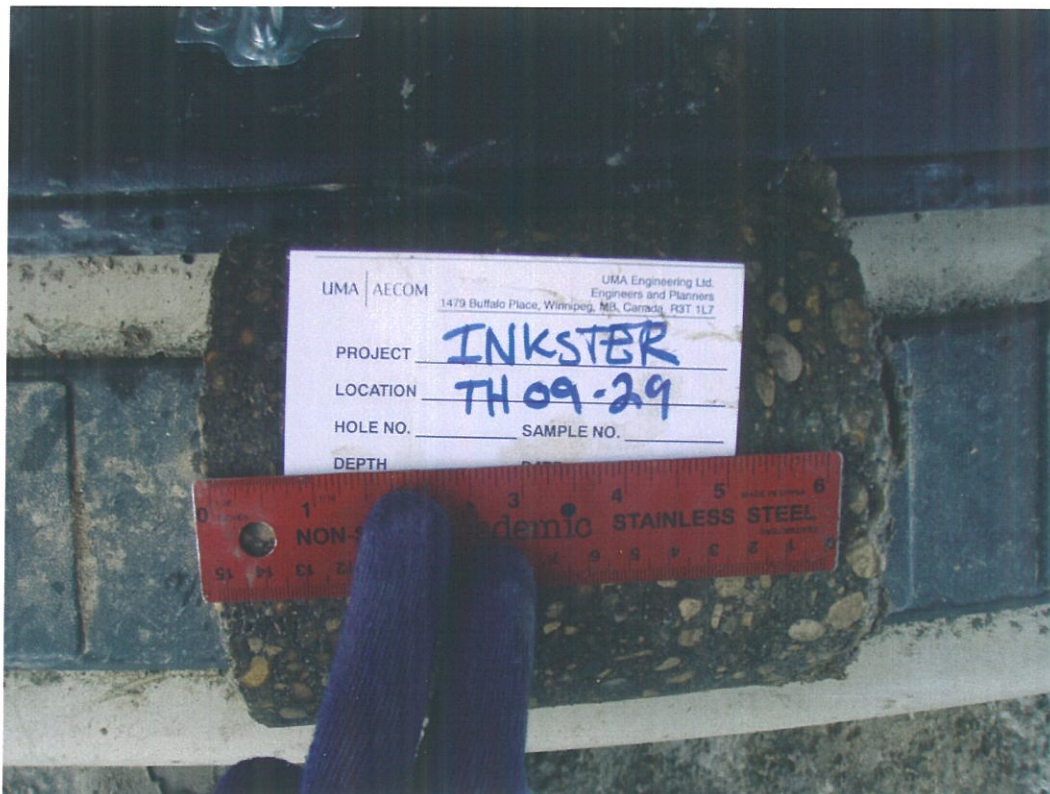


Photo 20: Core sample from TH-09-29



Photo 21: Core sample from TH-09-31



Photo 22: Core sample from TH-09-33



Photo 23: Core sample from TH-09-35 (labeled incorrectly in photo)



Photo 24: Core sample from TH-09-36

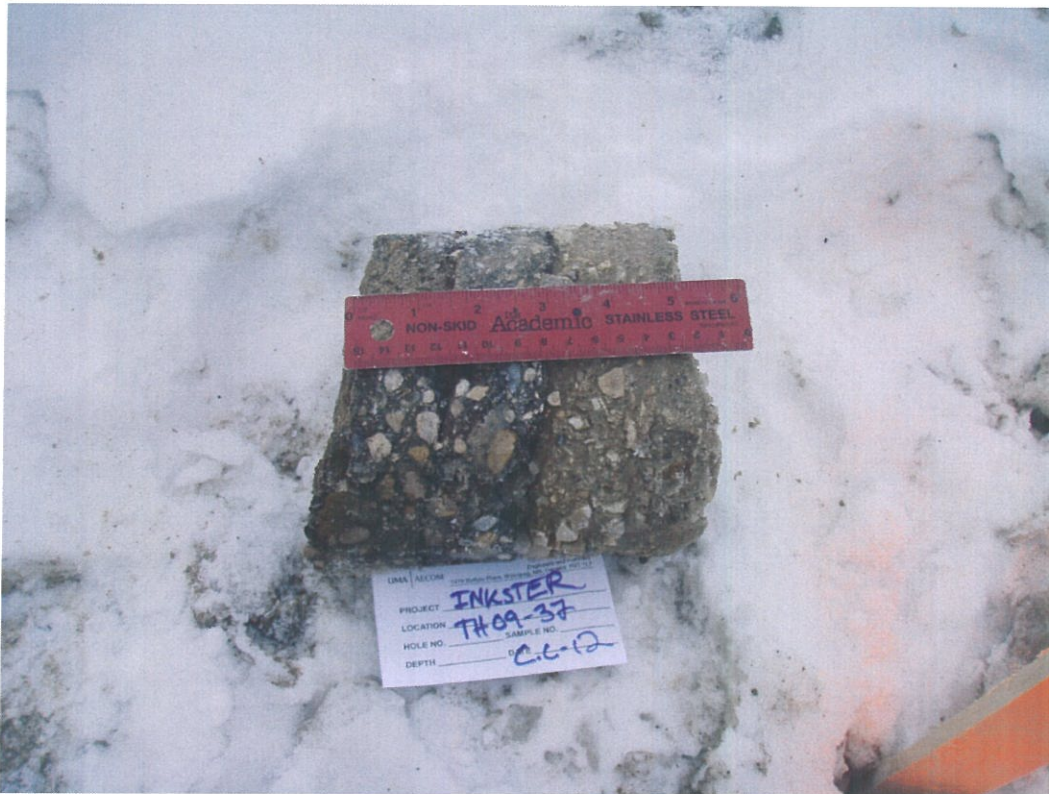


Photo 25: Core sample from TH-09-37



Photo 26: Core sample from TH-09-38 (incorrectly labeled in photo)

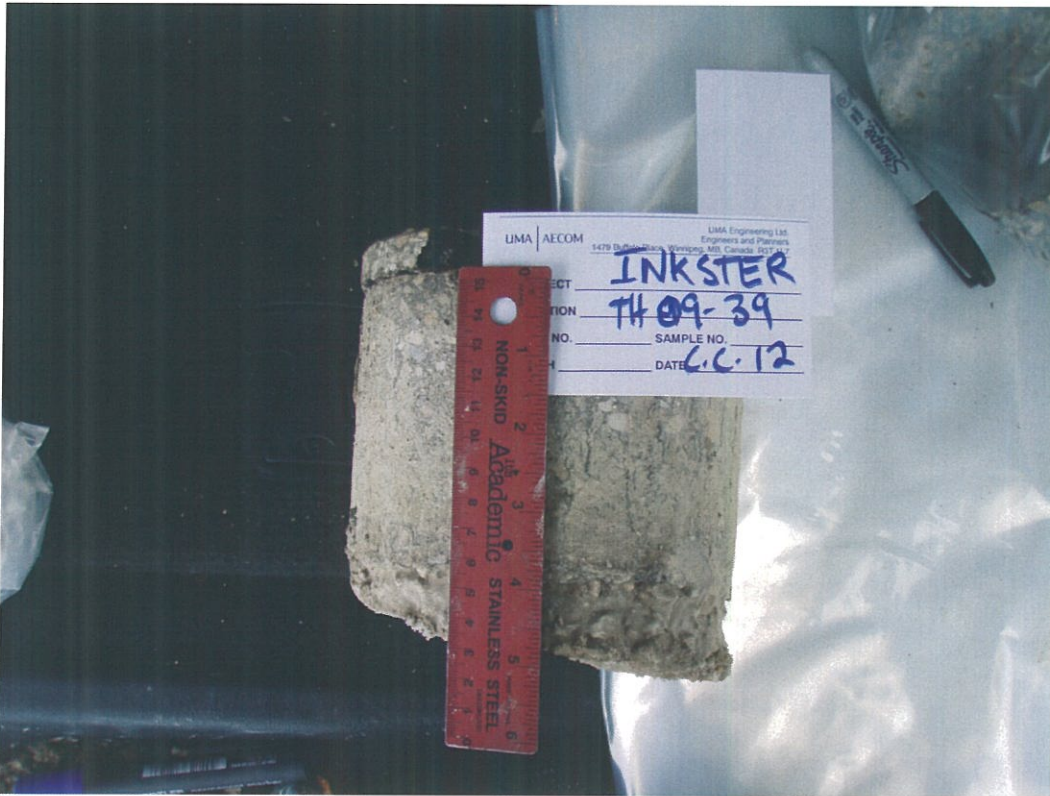


Photo 27: Core sample from TH-09-39



Photo 28: Core sample from TH-09-41

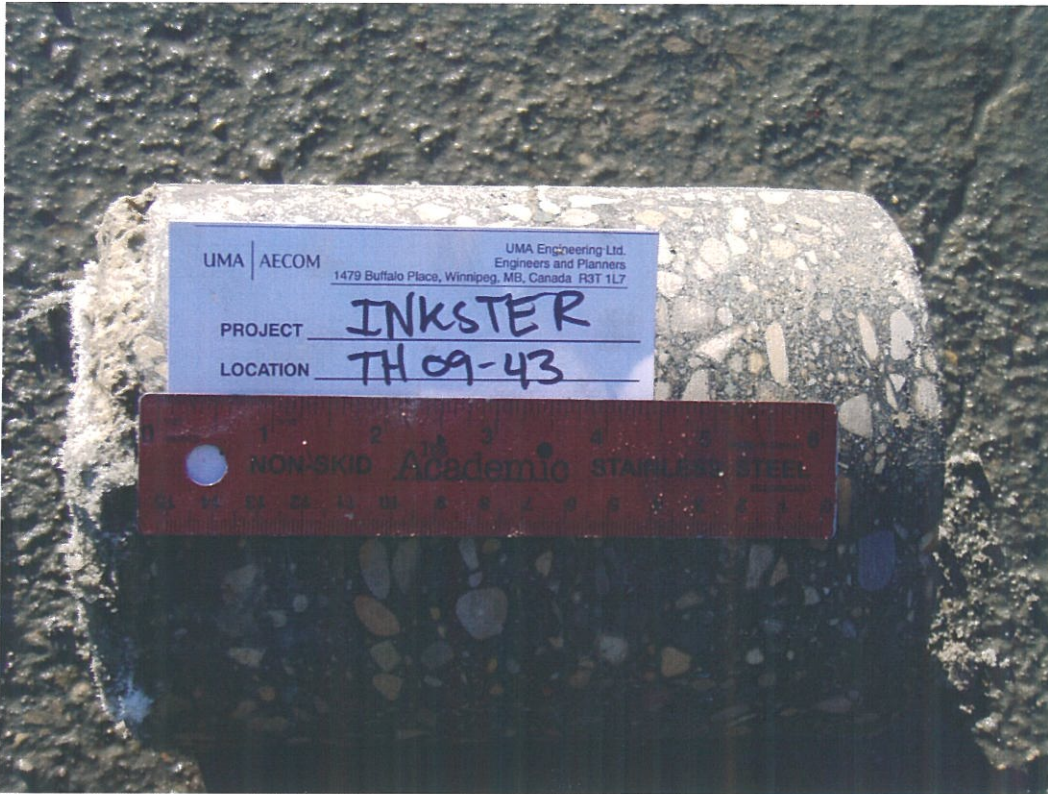


Photo 29: Core sample from TH-09-43



Photo 30: Core sample from TH-09-45

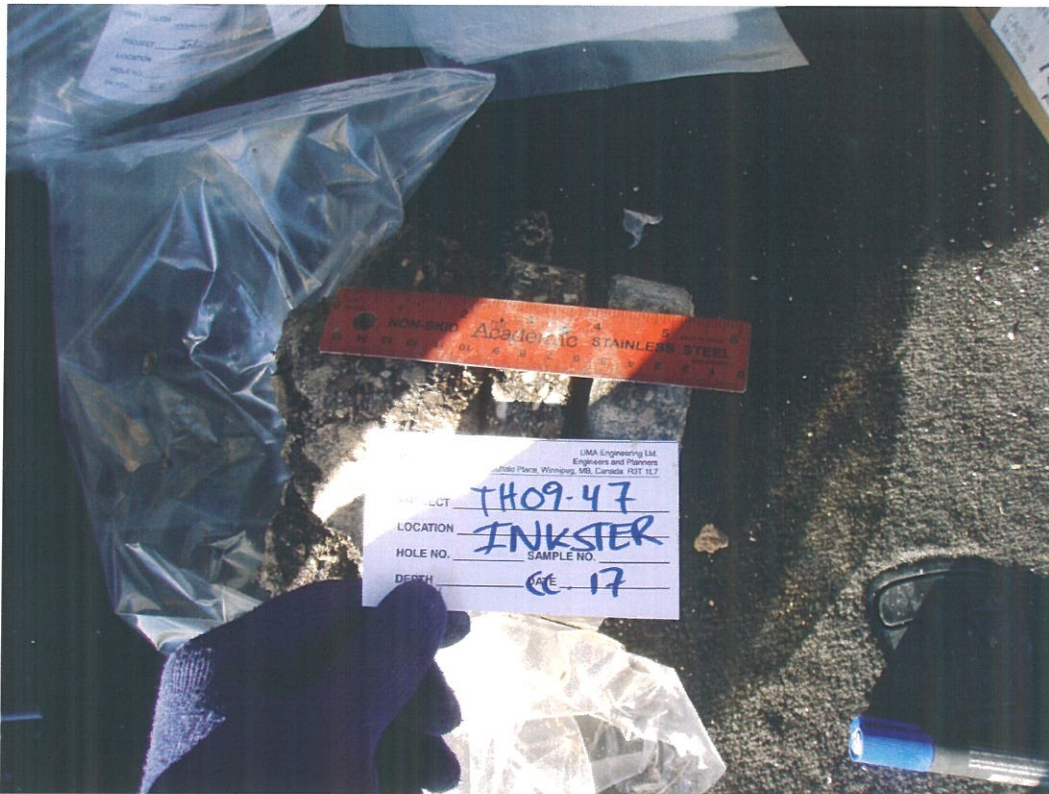


Photo 31: Core sample from TH-09-47

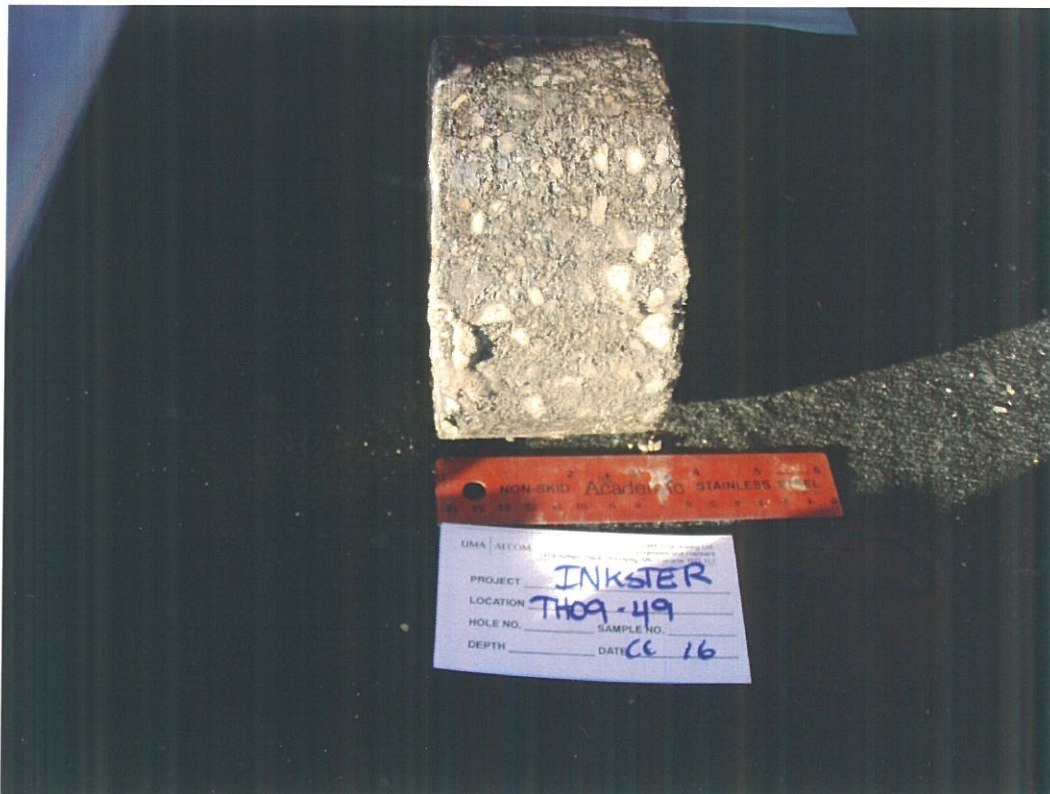


Photo 32: Core sample from TH-09-49



Photo 33: Core sample from TH-09-50

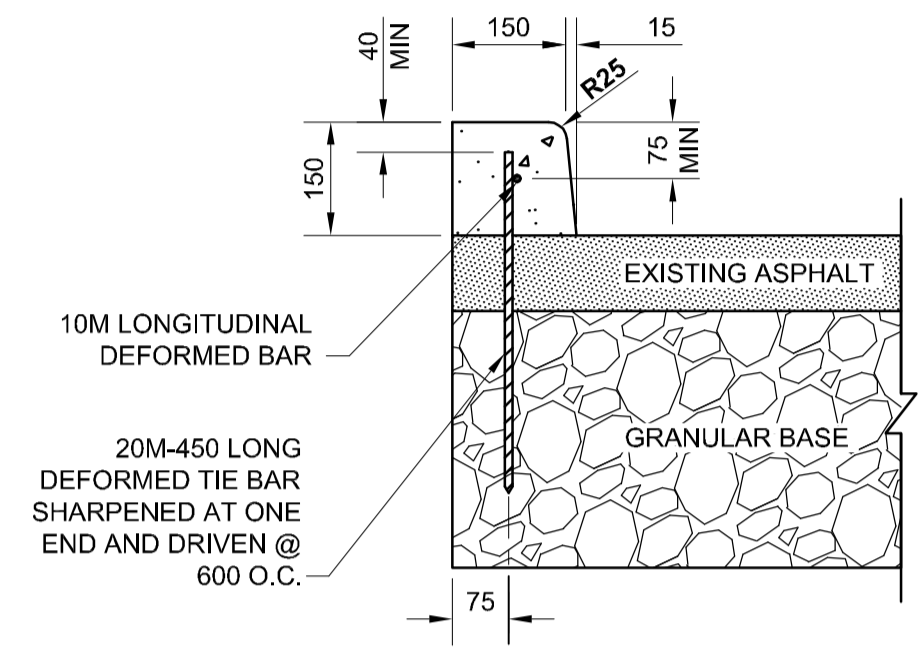
APPENDIX 'B'

Sequence of Work Figures

A1 SIZE 23.8" x 33.1" (604mm x 841mm)
 PLOT: 08/07/14 9:16:34 AM
 AECOM FILE NAME: 0285-41-00_02-CTF001_BX.dwg
 Saved By: ccooper
 © 2008 AECOM Canada Ltd. All Rights Reserved. This document is prepared by AECOM for the City of Winnipeg. It is the property of AECOM and is not to be distributed, copied, or used for any other purpose without the written consent of AECOM.

LEGEND

- STAGE 1 WORKS
- TEMPORARY ASPHALT
- TRAFFIC FLOW



DETAIL A

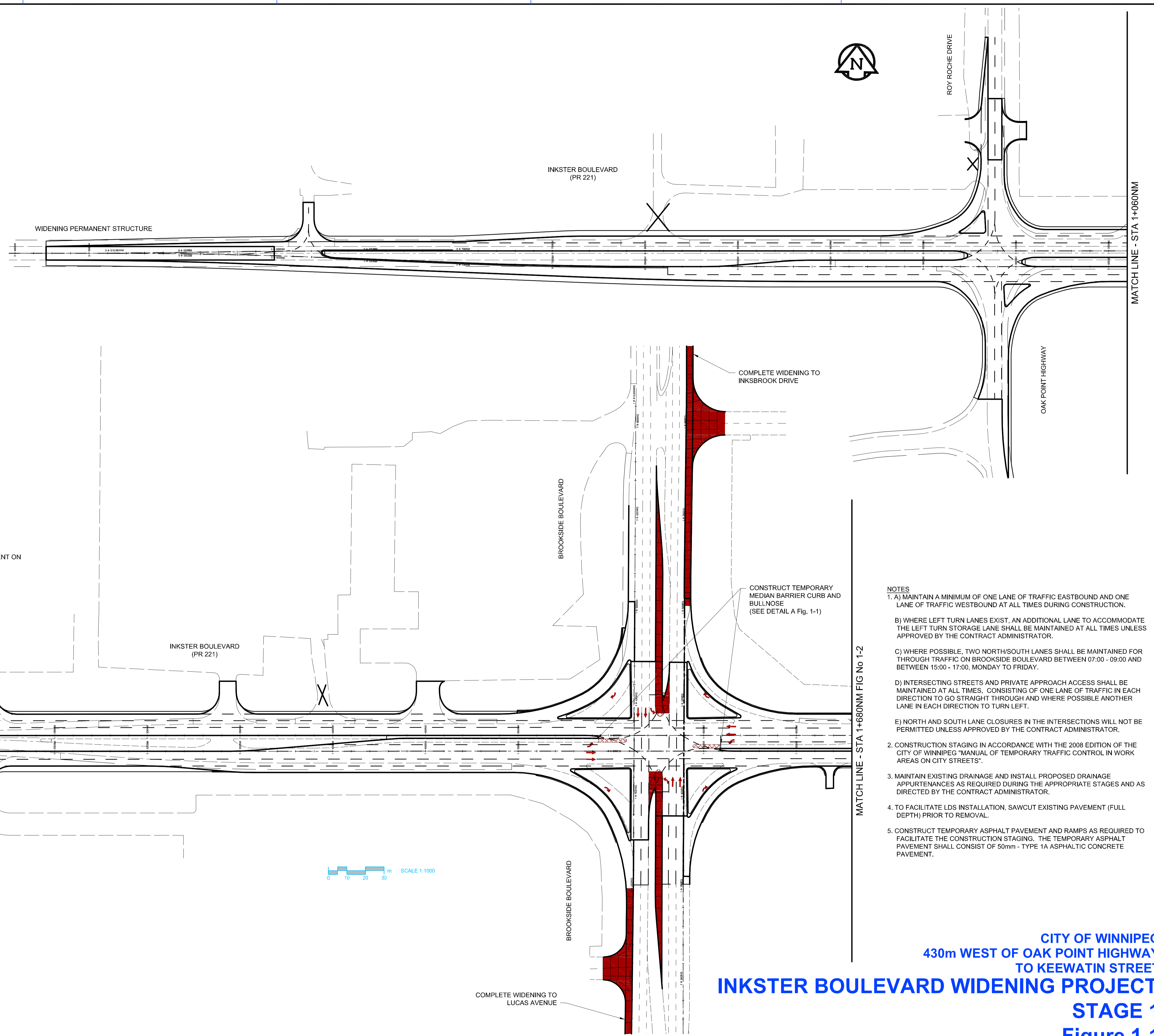
0 0.1 0.2 0.3 m SCALE 1:10

DOWELED BARRIER CURB

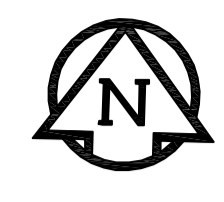
APPLICABLE TO INKSTER BLVD DETOUR AT BROOKSIDE BLVD INTERSECTION

MAJOR ITEMS OF WORK

- CONSTRUCTION OF TEMPORARY PAVEMENTS
- CONSTRUCTION OF NEW PAVEMENT ON BROOKSIDE BLVD



0 10 20 30 m SCALE 1:1000



- NOTES**
1. A) MAINTAIN A MINIMUM OF ONE LANE OF TRAFFIC EASTBOUND AND ONE LANE OF TRAFFIC WESTBOUND AT ALL TIMES DURING CONSTRUCTION.
 - B) WHERE LEFT TURN LANES EXIST, AN ADDITIONAL LANE TO ACCOMMODATE THE LEFT TURN STORAGE LANE SHALL BE MAINTAINED AT ALL TIMES UNLESS APPROVED BY THE CONTRACT ADMINISTRATOR.
 - C) WHERE POSSIBLE, TWO NORTH/SOUTH LANES SHALL BE MAINTAINED FOR THROUGH TRAFFIC ON BROOKSIDE BOULEVARD BETWEEN 07:00 - 09:00 AND BETWEEN 15:00 - 17:00, MONDAY TO FRIDAY.
 - D) INTERSECTING STREETS AND PRIVATE APPROACH ACCESS SHALL BE MAINTAINED AT ALL TIMES, CONSISTING OF ONE LANE OF TRAFFIC IN EACH DIRECTION TO GO STRAIGHT THROUGH AND WHERE POSSIBLE ANOTHER LANE IN EACH DIRECTION TO TURN LEFT.
 - E) NORTH AND SOUTH LANE CLOSURES IN THE INTERSECTIONS WILL NOT BE PERMITTED UNLESS APPROVED BY THE CONTRACT ADMINISTRATOR.
 2. CONSTRUCTION STAGING IN ACCORDANCE WITH THE 2008 EDITION OF THE CITY OF WINNIPEG "MANUAL OF TEMPORARY TRAFFIC CONTROL IN WORK AREAS ON CITY STREETS".
 3. MAINTAIN EXISTING DRAINAGE AND INSTALL PROPOSED DRAINAGE APPURTENANCES AS REQUIRED DURING THE APPROPRIATE STAGES AND AS DIRECTED BY THE CONTRACT ADMINISTRATOR.
 4. TO FACILITATE LDS INSTALLATION, SAWCUT EXISTING PAVEMENT (FULL DEPTH) PRIOR TO REMOVAL.
 5. CONSTRUCT TEMPORARY ASPHALT PAVEMENT AND RAMPS AS REQUIRED TO FACILITATE THE CONSTRUCTION STAGING. THE TEMPORARY ASPHALT PAVEMENT SHALL CONSIST OF 50mm - TYPE 1A ASPHALTIC CONCRETE PAVEMENT.

A1 SIZE 23.89" x 33.11" (606mm x 841mm)

PLOT: 08/07/14 9:18:29 AM

PROJECT: AECMA FILE NAME: 0854-11-00_02-CTF02_BX.dwg Saved By: cpop

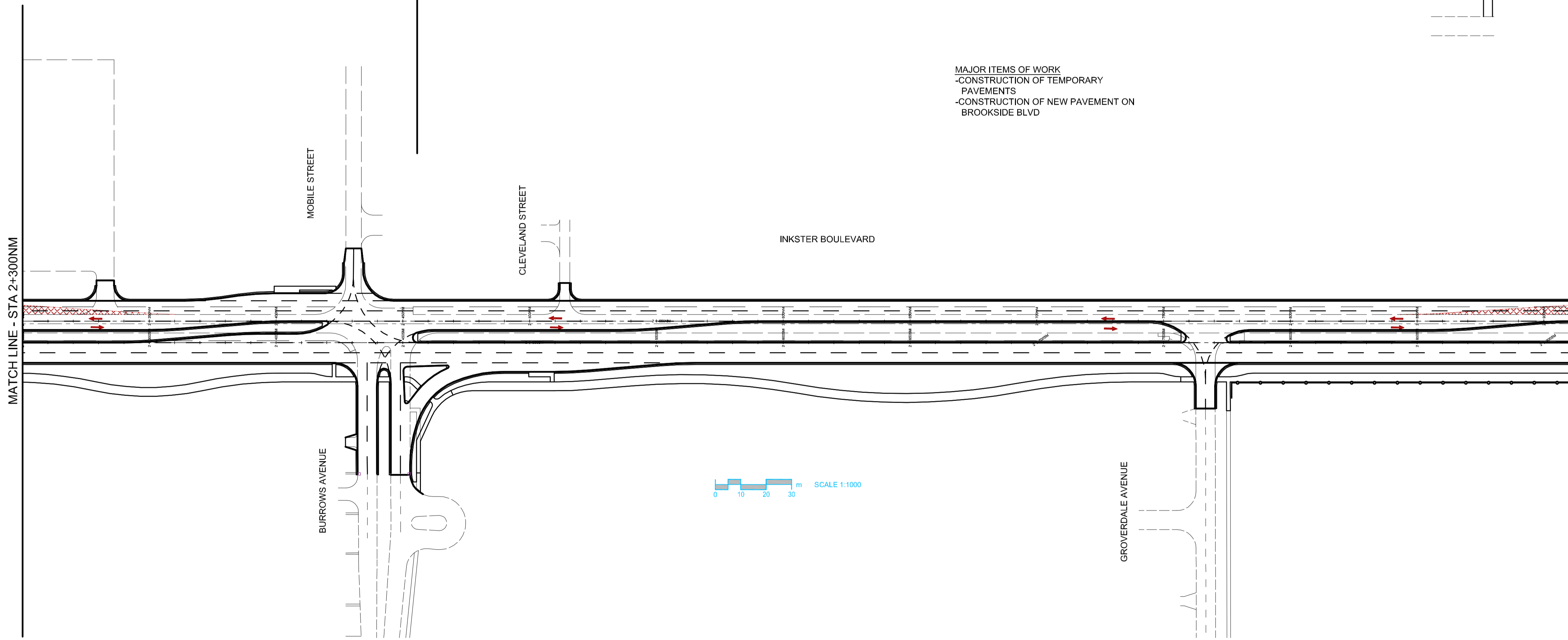
LEGEND

- STAGE 1 WORKS
- TEMPORARY ASPHALT
- TRAFFIC FLOW



MATCH LINE - STA 1+680NM FIG No 1-1

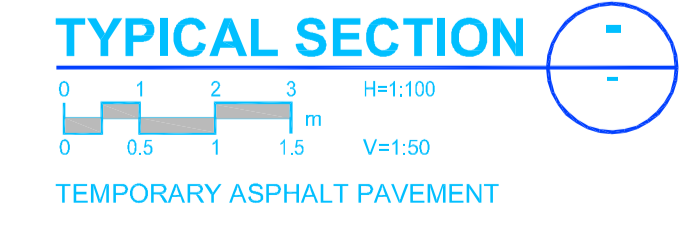
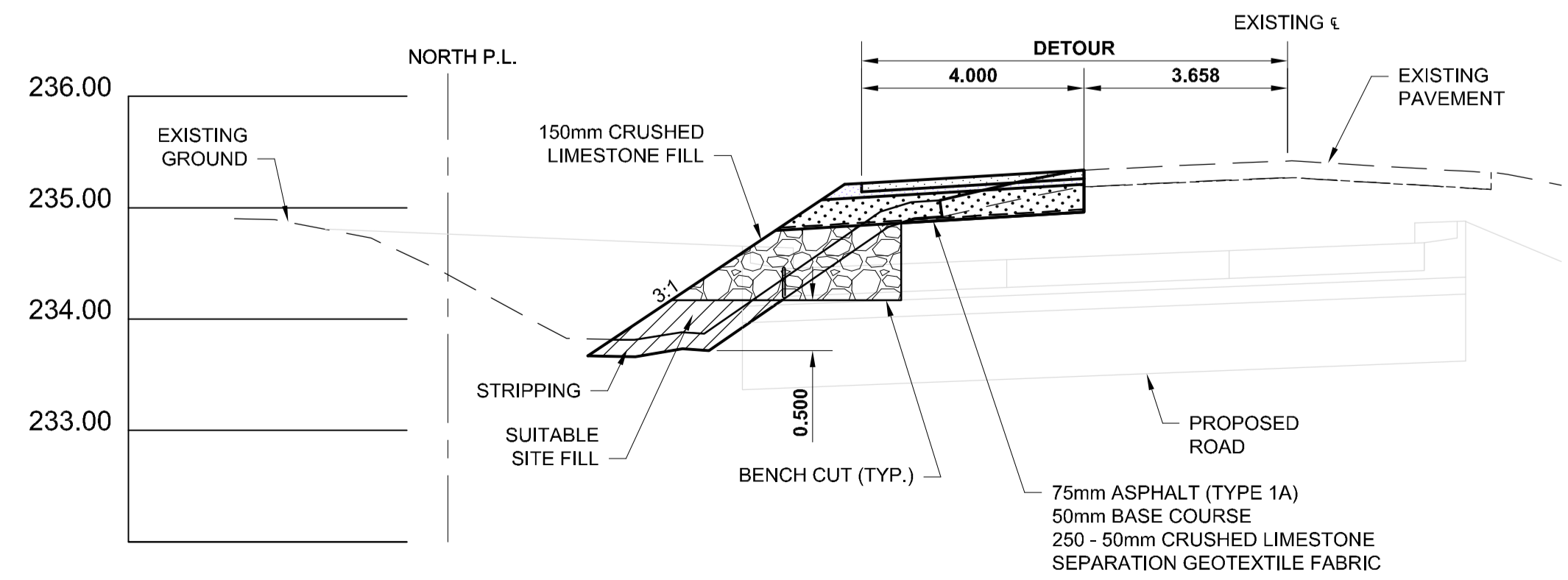
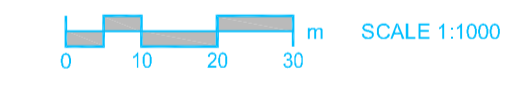
MATCH LINE - STA 2+300NM



MAJOR ITEMS OF WORK
 -CONSTRUCTION OF TEMPORARY PAVEMENTS
 -CONSTRUCTION OF NEW PAVEMENT ON BROOKSIDE BLVD

NOTES

1. A) MAINTAIN A MINIMUM OF ONE LANE OF TRAFFIC EASTBOUND AND ONE LANE OF TRAFFIC WESTBOUND AT ALL TIMES DURING CONSTRUCTION.
- B) WHERE LEFT TURN LANES EXIST, AN ADDITIONAL LANE TO ACCOMMODATE THE LEFT TURN STORAGE LANE SHALL BE MAINTAINED AT ALL TIMES UNLESS APPROVED BY THE CONTRACT ADMINISTRATOR.
- C) WHERE POSSIBLE, TWO NORTH/SOUTH LANES SHALL BE MAINTAINED FOR THROUGH TRAFFIC ON BROOKSIDE BOULEVARD BETWEEN 07:00 - 09:00 AND BETWEEN 15:00 - 17:00, MONDAY TO FRIDAY.
- D) INTERSECTING STREETS AND PRIVATE APPROACH ACCESS SHALL BE MAINTAINED AT ALL TIMES, CONSISTING OF ONE LANE OF TRAFFIC IN EACH DIRECTION TO GO STRAIGHT THROUGH AND WHERE POSSIBLE ANOTHER LANE IN EACH DIRECTION TO TURN LEFT.
- E) NORTH AND SOUTH LANE CLOSURES IN THE INTERSECTIONS WILL NOT BE PERMITTED UNLESS APPROVED BY THE CONTRACT ADMINISTRATOR.
2. CONSTRUCTION STAGING IN ACCORDANCE WITH THE 2008 EDITION OF THE CITY OF WINNIPEG "MANUAL OF TEMPORARY TRAFFIC CONTROL IN WORK AREAS ON CITY STREETS".
3. MAINTAIN EXISTING DRAINAGE AND INSTALL PROPOSED DRAINAGE APPURTENANCES AS REQUIRED DURING THE APPROPRIATE STAGES AND AS DIRECTED BY THE CONTRACT ADMINISTRATOR.
4. TO FACILITATE LDS INSTALLATION, SAWCUT EXISTING PAVEMENT (FULL DEPTH) PRIOR TO REMOVAL.
5. CONSTRUCT TEMPORARY ASPHALT PAVEMENT AND RAMPS AS REQUIRED TO FACILITATE THE CONSTRUCTION STAGING. THE TEMPORARY ASPHALT PAVEMENT SHALL CONSIST OF 50mm - TYPE 1A ASPHALTIC CONCRETE PAVEMENT.

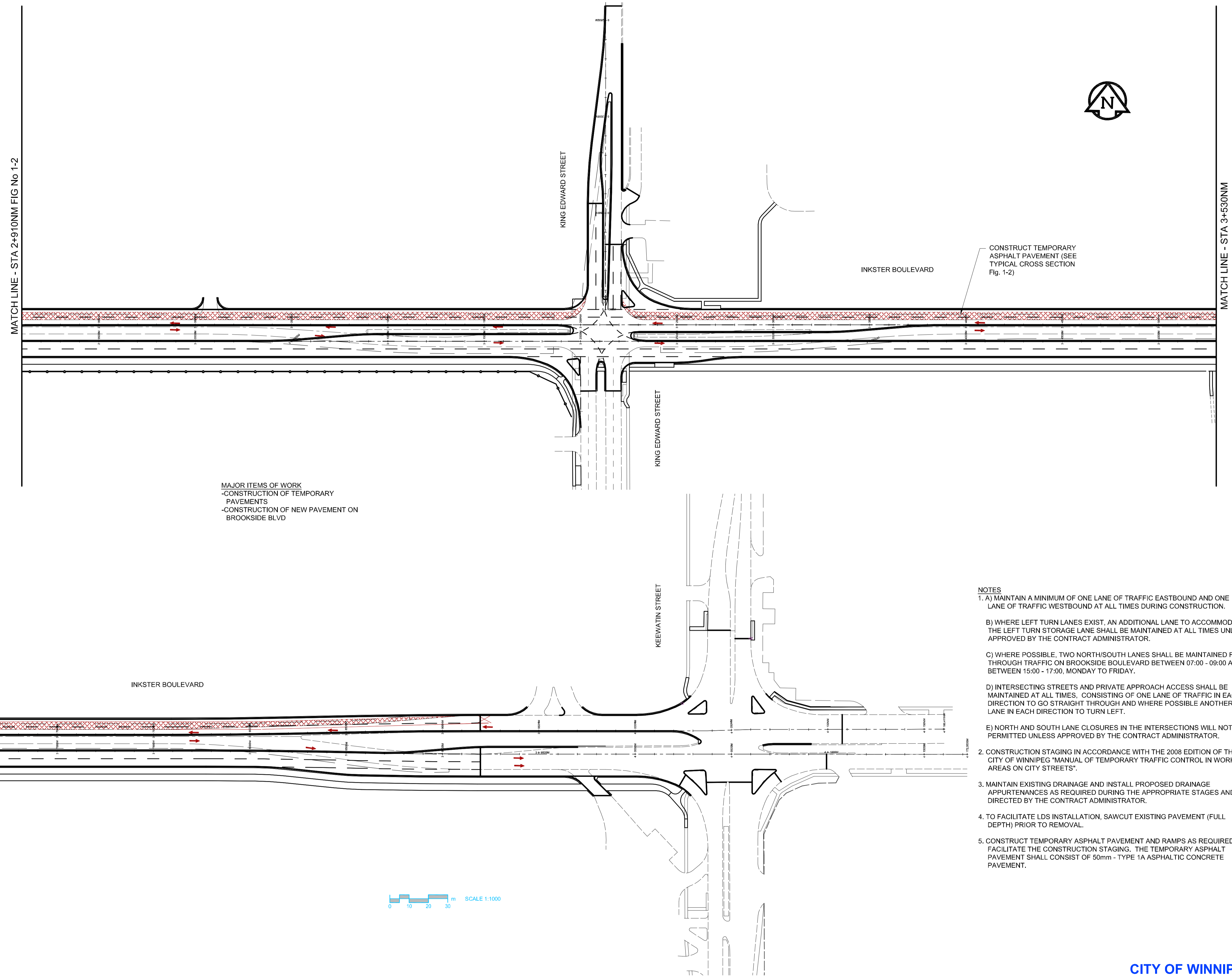


CITY OF WINNIPEG
 430m WEST OF OAK POINT HIGHWAY
 TO KEEWATIN STREET
INKSTER BOULEVARD WIDENING PROJECT
STAGE 1
Figure 1-2

A1 SIZE 23.5" x 33.1" (596mm x 841mm)
 PLOT: 08/07/14 9:20:17 AM
 0200 AECOM Canada Ltd. All Rights Reserved. This document is prepared by AECOM for the City of Winnipeg. It is not to be used for any other purpose without the written consent of AECOM.

LEGEND

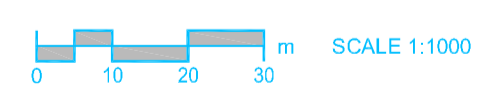
- STAGE 1 WORKS
- TEMPORARY ASPHALT
- TRAFFIC FLOW



MAJOR ITEMS OF WORK
 -CONSTRUCTION OF TEMPORARY PAVEMENTS
 -CONSTRUCTION OF NEW PAVEMENT ON BROOKSIDE BLVD

CONSTRUCT TEMPORARY ASPHALT PAVEMENT (SEE TYPICAL CROSS SECTION Fig. 1-2)

- NOTES**
1. A) MAINTAIN A MINIMUM OF ONE LANE OF TRAFFIC EASTBOUND AND ONE LANE OF TRAFFIC WESTBOUND AT ALL TIMES DURING CONSTRUCTION.
 - B) WHERE LEFT TURN LANES EXIST, AN ADDITIONAL LANE TO ACCOMMODATE THE LEFT TURN STORAGE LANE SHALL BE MAINTAINED AT ALL TIMES UNLESS APPROVED BY THE CONTRACT ADMINISTRATOR.
 - C) WHERE POSSIBLE, TWO NORTH/SOUTH LANES SHALL BE MAINTAINED FOR THROUGH TRAFFIC ON BROOKSIDE BOULEVARD BETWEEN 07:00 - 09:00 AND BETWEEN 15:00 - 17:00, MONDAY TO FRIDAY.
 - D) INTERSECTING STREETS AND PRIVATE APPROACH ACCESS SHALL BE MAINTAINED AT ALL TIMES, CONSISTING OF ONE LANE OF TRAFFIC IN EACH DIRECTION TO GO STRAIGHT THROUGH AND WHERE POSSIBLE ANOTHER LANE IN EACH DIRECTION TO TURN LEFT.
 - E) NORTH AND SOUTH LANE CLOSURES IN THE INTERSECTIONS WILL NOT BE PERMITTED UNLESS APPROVED BY THE CONTRACT ADMINISTRATOR.
 2. CONSTRUCTION STAGING IN ACCORDANCE WITH THE 2008 EDITION OF THE CITY OF WINNIPEG "MANUAL OF TEMPORARY TRAFFIC CONTROL IN WORK AREAS ON CITY STREETS".
 3. MAINTAIN EXISTING DRAINAGE AND INSTALL PROPOSED DRAINAGE APPURTENANCES AS REQUIRED DURING THE APPROPRIATE STAGES AND AS DIRECTED BY THE CONTRACT ADMINISTRATOR.
 4. TO FACILITATE LDS INSTALLATION, SAWCUT EXISTING PAVEMENT (FULL DEPTH) PRIOR TO REMOVAL.
 5. CONSTRUCT TEMPORARY ASPHALT PAVEMENT AND RAMPS AS REQUIRED TO FACILITATE THE CONSTRUCTION STAGING. THE TEMPORARY ASPHALT PAVEMENT SHALL CONSIST OF 50mm - TYPE 1A ASPHALTIC CONCRETE PAVEMENT.



MATCH LINE - STA 3+530NM

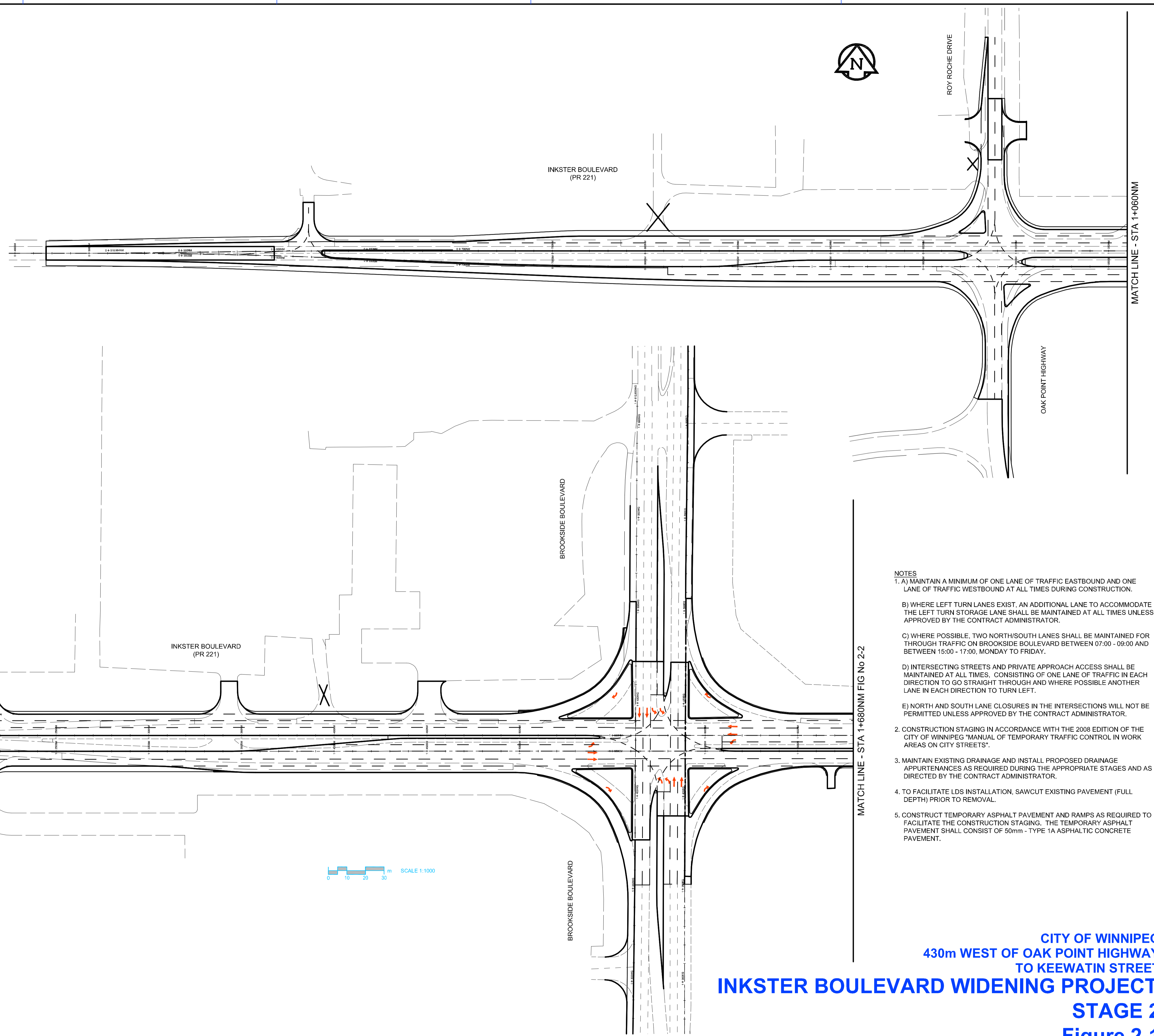
MATCH LINE - STA. 2+910NM FIG No 1-2

MATCH LINE - STA 3+530NM

LEGEND

- STAGE 2 WORKS
- STAGE 2a WORKS
- STAGE 2b WORKS
- TEMPORARY ASPHALT
- TRAFFIC FLOW
- STAGE 2 LAND DRAINAGE
- STAGE 2a LAND DRAINAGE
- STAGE 2b LAND DRAINAGE

MAJOR ITEMS OF WORK
 -INSTALLATION OF NEW LDS
 -CONSTRUCTION OF ASPHALT DETOUR AT KEEWATIN INTERSECTION
 -CONSTRUCTION OF NEW PAVEMENT ON BROOKSIDE BLVD











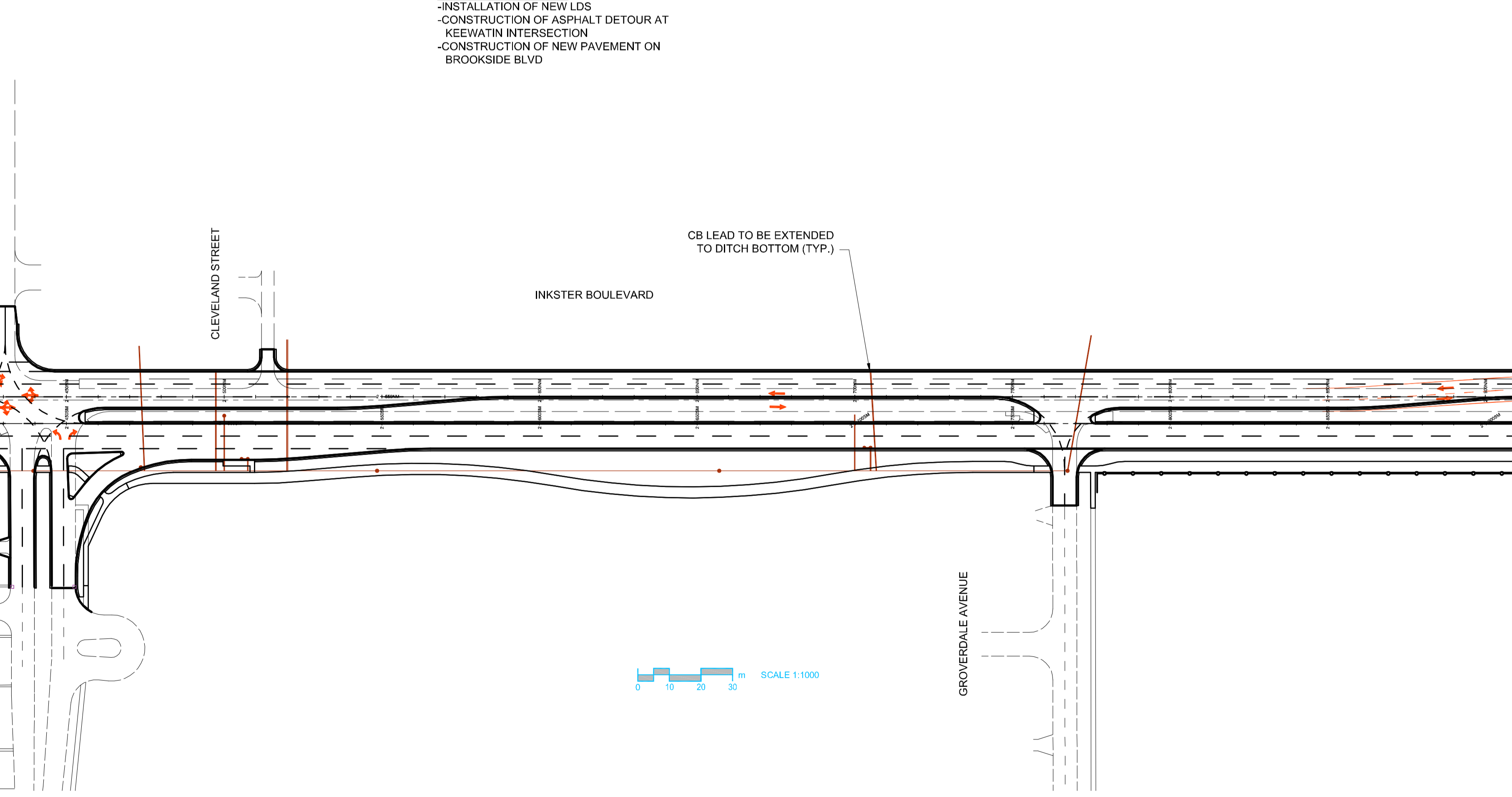
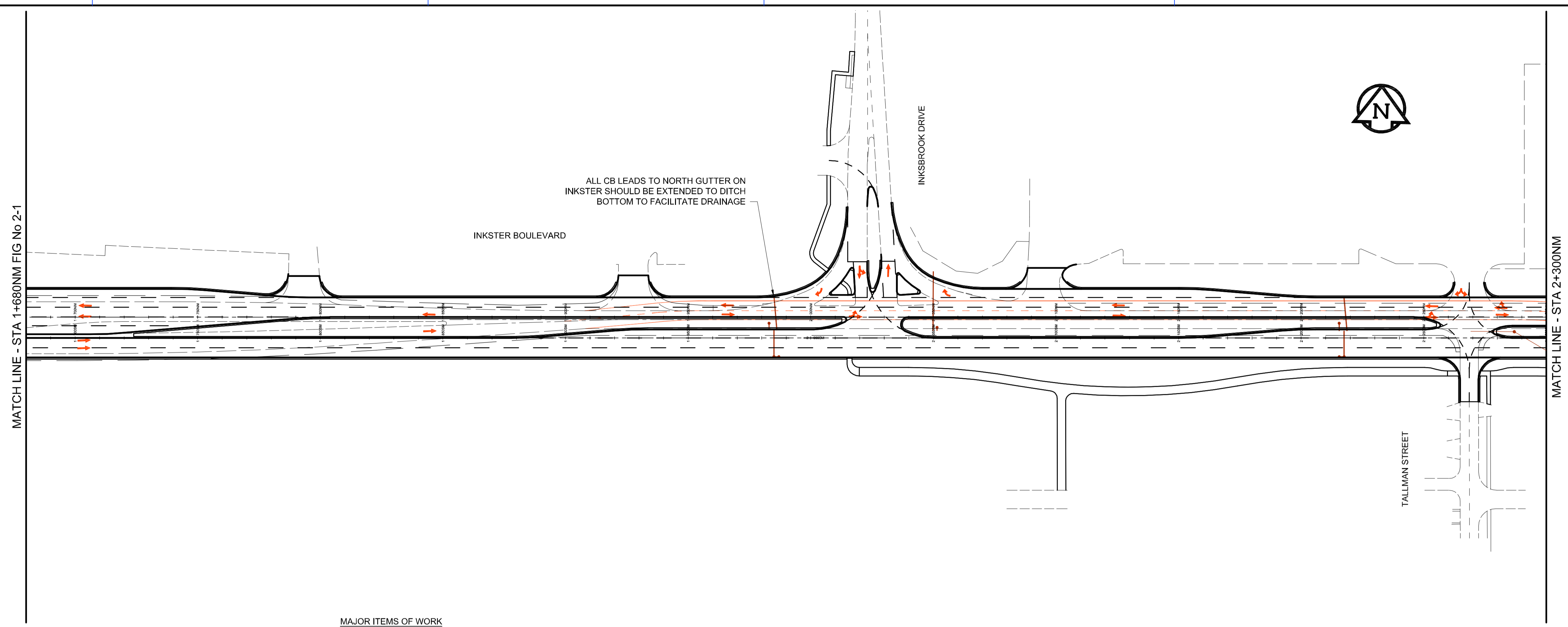
- NOTES**
1. A) MAINTAIN A MINIMUM OF ONE LANE OF TRAFFIC EASTBOUND AND ONE LANE OF TRAFFIC WESTBOUND AT ALL TIMES DURING CONSTRUCTION.
 - B) WHERE LEFT TURN LANES EXIST, AN ADDITIONAL LANE TO ACCOMMODATE THE LEFT TURN STORAGE LANE SHALL BE MAINTAINED AT ALL TIMES UNLESS APPROVED BY THE CONTRACT ADMINISTRATOR.
 - C) WHERE POSSIBLE, TWO NORTH/SOUTH LANES SHALL BE MAINTAINED FOR THROUGH TRAFFIC ON BROOKSIDE BOULEVARD BETWEEN 07:00 - 09:00 AND BETWEEN 15:00 - 17:00, MONDAY TO FRIDAY.
 - D) INTERSECTING STREETS AND PRIVATE APPROACH ACCESS SHALL BE MAINTAINED AT ALL TIMES, CONSISTING OF ONE LANE OF TRAFFIC IN EACH DIRECTION TO GO STRAIGHT THROUGH AND WHERE POSSIBLE ANOTHER LANE IN EACH DIRECTION TO TURN LEFT.
 - E) NORTH AND SOUTH LANE CLOSURES IN THE INTERSECTIONS WILL NOT BE PERMITTED UNLESS APPROVED BY THE CONTRACT ADMINISTRATOR.
 2. CONSTRUCTION STAGING IN ACCORDANCE WITH THE 2008 EDITION OF THE CITY OF WINNIPEG "MANUAL OF TEMPORARY TRAFFIC CONTROL IN WORK AREAS ON CITY STREETS".
 3. MAINTAIN EXISTING DRAINAGE AND INSTALL PROPOSED DRAINAGE APPURTENANCES AS REQUIRED DURING THE APPROPRIATE STAGES AND AS DIRECTED BY THE CONTRACT ADMINISTRATOR.
 4. TO FACILITATE LDS INSTALLATION, SAWCUT EXISTING PAVEMENT (FULL DEPTH) PRIOR TO REMOVAL.
 5. CONSTRUCT TEMPORARY ASPHALT PAVEMENT AND RAMPS AS REQUIRED TO FACILITATE THE CONSTRUCTION STAGING. THE TEMPORARY ASPHALT PAVEMENT SHALL CONSIST OF 50mm - TYPE 1A ASPHALTIC CONCRETE PAVEMENT.

CITY OF WINNIPEG
430m WEST OF OAK POINT HIGHWAY
TO KEEWATIN STREET
INKSTER BOULEVARD WIDENING PROJECT
STAGE 2
Figure 2-1



A1 SIZE 23.8" x 33.1" (604mm x 841mm)
 PLOT: 08/07/14 9:23:36 AM
 FILE NAME: 02S-41-00_02-CTF05_BX.dwg
 Saved By: ccooperd
 © 2008 AECOM Canada Ltd. All Rights Reserved. This document is prepared by AECOM for the City of Winnipeg. It is not to be used for any other purpose without the written consent of AECOM.

LEGEND	
	STAGE 2 WORKS
	STAGE 2a WORKS
	STAGE 2b WORKS
	TEMPORARY ASPHALT
	TRAFFIC FLOW
	STAGE 2 LAND DRAINAGE
	STAGE 2a LAND DRAINAGE
	STAGE 2b LAND DRAINAGE



MAJOR ITEMS OF WORK
 -INSTALLATION OF NEW LDS
 -CONSTRUCTION OF ASPHALT DETOUR AT KEEWATIN INTERSECTION
 -CONSTRUCTION OF NEW PAVEMENT ON BROOKSIDE BLVD

- NOTES**
- A) MAINTAIN A MINIMUM OF ONE LANE OF TRAFFIC EASTBOUND AND ONE LANE OF TRAFFIC WESTBOUND AT ALL TIMES DURING CONSTRUCTION.
 B) WHERE LEFT TURN LANES EXIST, AN ADDITIONAL LANE TO ACCOMMODATE THE LEFT TURN STORAGE LANE SHALL BE MAINTAINED AT ALL TIMES UNLESS APPROVED BY THE CONTRACT ADMINISTRATOR.
 C) WHERE POSSIBLE, TWO NORTH/SOUTH LANES SHALL BE MAINTAINED FOR THROUGH TRAFFIC ON BROOKSIDE BOULEVARD BETWEEN 07:00 - 09:00 AND BETWEEN 15:00 - 17:00, MONDAY TO FRIDAY.
 D) INTERSECTING STREETS AND PRIVATE APPROACH ACCESS SHALL BE MAINTAINED AT ALL TIMES, CONSISTING OF ONE LANE OF TRAFFIC IN EACH DIRECTION TO GO STRAIGHT THROUGH AND WHERE POSSIBLE ANOTHER LANE IN EACH DIRECTION TO TURN LEFT.
 E) NORTH AND SOUTH LANE CLOSURES IN THE INTERSECTIONS WILL NOT BE PERMITTED UNLESS APPROVED BY THE CONTRACT ADMINISTRATOR.
 - CONSTRUCTION STAGING IN ACCORDANCE WITH THE 2008 EDITION OF THE CITY OF WINNIPEG "MANUAL OF TEMPORARY TRAFFIC CONTROL IN WORK AREAS ON CITY STREETS".
 - MAINTAIN EXISTING DRAINAGE AND INSTALL PROPOSED DRAINAGE APPURTENANCES AS REQUIRED DURING THE APPROPRIATE STAGES AND AS DIRECTED BY THE CONTRACT ADMINISTRATOR.
 - TO FACILITATE LDS INSTALLATION, SAWCUT EXISTING PAVEMENT (FULL DEPTH) PRIOR TO REMOVAL.
 - CONSTRUCT TEMPORARY ASPHALT PAVEMENT AND RAMPS AS REQUIRED TO FACILITATE THE CONSTRUCTION STAGING. THE TEMPORARY ASPHALT PAVEMENT SHALL CONSIST OF 50mm - TYPE 1A ASPHALTIC CONCRETE PAVEMENT.

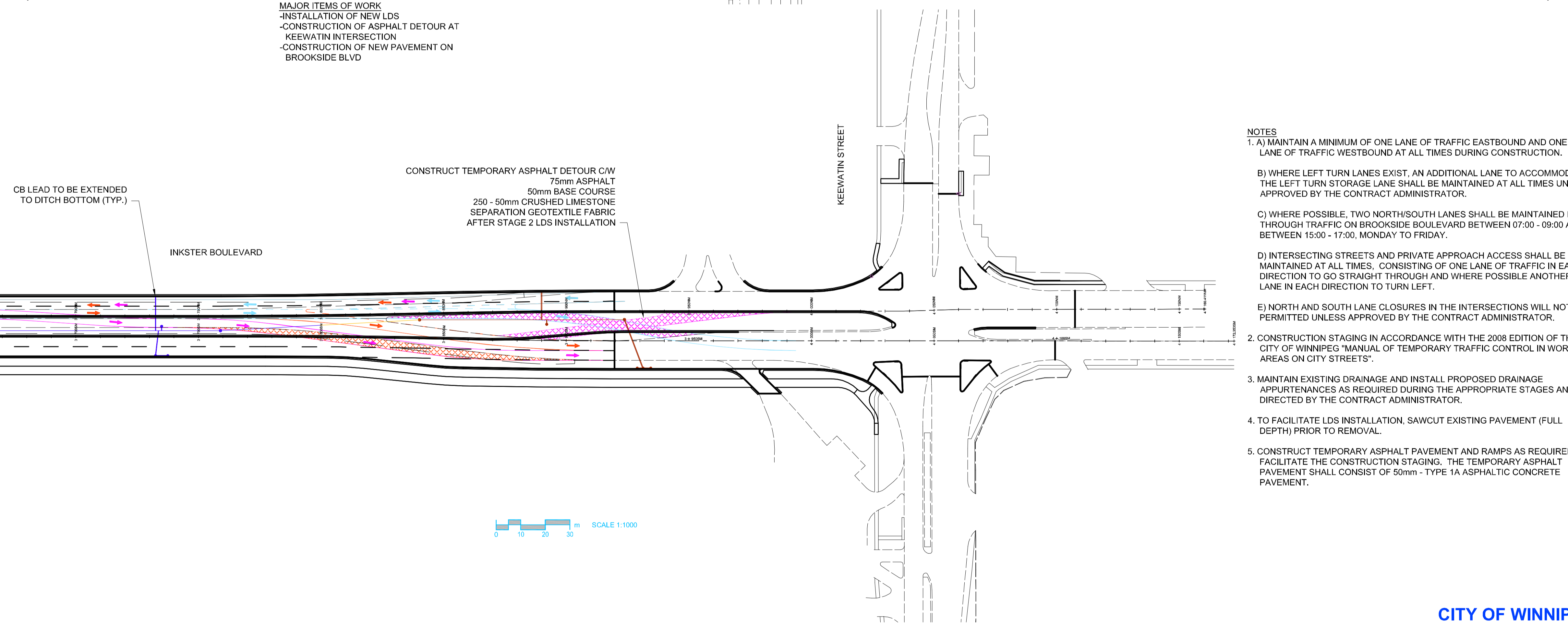
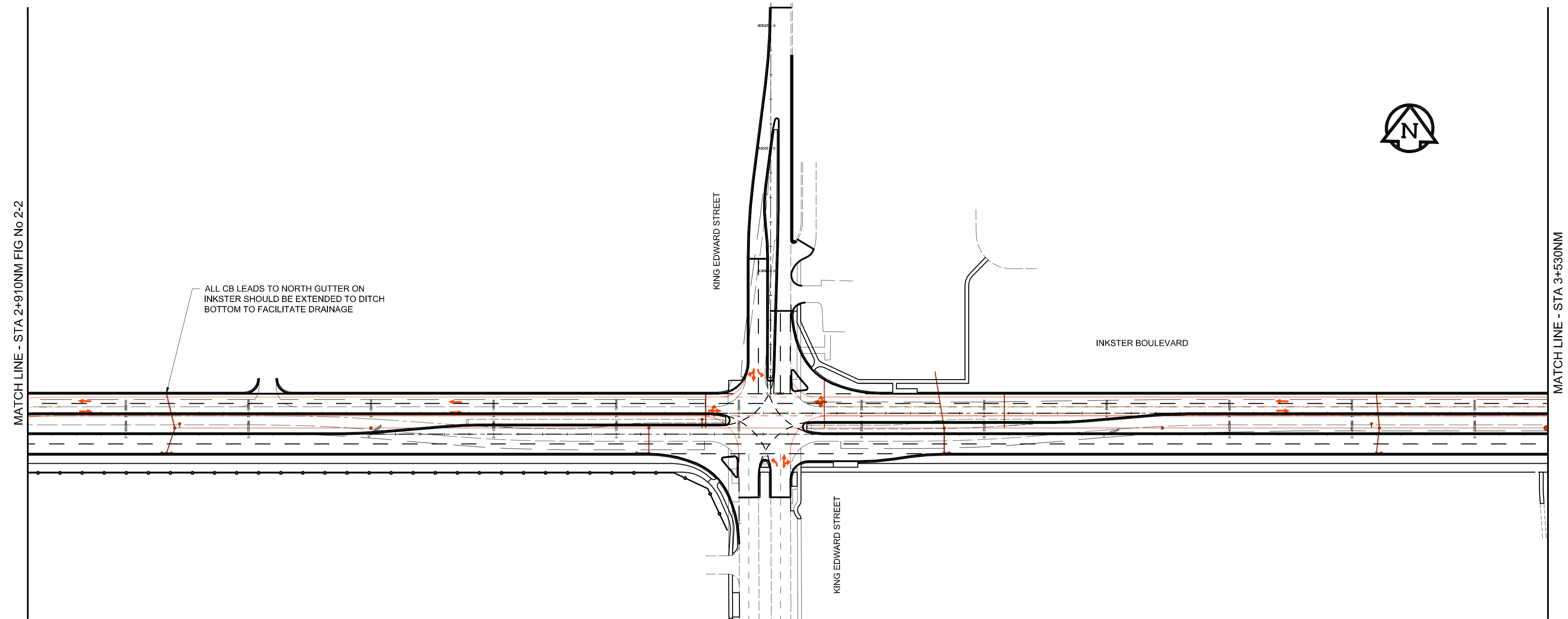
CITY OF WINNIPEG
430m WEST OF OAK POINT HIGHWAY
TO KEEWATIN STREET
INKSTER BOULEVARD WIDENING PROJECT
STAGE 2
Figure 2-2



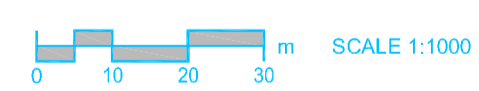
A1 SIZE 23.89" x 33.11" (606mm x 841mm)
 PLOT: 08/07/14 9:26:25 AM
 FILE NAME: 02S-41-00_02-CTF06_BX.dwg
 Saved By: cpop
 © 2008 AECOM Canada Ltd. All Rights Reserved. This document is prepared by AECOM for the use of the City of Winnipeg. It is not to be used for any other purpose without the written consent of AECOM.

LEGEND

- STAGE 2 WORKS
- STAGE 2a WORKS
- STAGE 2b WORKS
- TEMPORARY ASPHALT
- TRAFFIC FLOW
- STAGE 2 LAND DRAINAGE
- STAGE 2a LAND DRAINAGE
- STAGE 2b LAND DRAINAGE



MAJOR ITEMS OF WORK
 -INSTALLATION OF NEW LDS
 -CONSTRUCTION OF ASPHALT DETOUR AT KEEWATIN INTERSECTION
 -CONSTRUCTION OF NEW PAVEMENT ON BROOKSIDE BLVD



- NOTES**
1. A) MAINTAIN A MINIMUM OF ONE LANE OF TRAFFIC EASTBOUND AND ONE LANE OF TRAFFIC WESTBOUND AT ALL TIMES DURING CONSTRUCTION.
 - B) WHERE LEFT TURN LANES EXIST, AN ADDITIONAL LANE TO ACCOMMODATE THE LEFT TURN STORAGE LANE SHALL BE MAINTAINED AT ALL TIMES UNLESS APPROVED BY THE CONTRACT ADMINISTRATOR.
 - C) WHERE POSSIBLE, TWO NORTH/SOUTH LANES SHALL BE MAINTAINED FOR THROUGH TRAFFIC ON BROOKSIDE BOULEVARD BETWEEN 07:00 - 09:00 AND BETWEEN 15:00 - 17:00, MONDAY TO FRIDAY.
 - D) INTERSECTING STREETS AND PRIVATE APPROACH ACCESS SHALL BE MAINTAINED AT ALL TIMES, CONSISTING OF ONE LANE OF TRAFFIC IN EACH DIRECTION TO GO STRAIGHT THROUGH AND WHERE POSSIBLE ANOTHER LANE IN EACH DIRECTION TO TURN LEFT.
 - E) NORTH AND SOUTH LANE CLOSURES IN THE INTERSECTIONS WILL NOT BE PERMITTED UNLESS APPROVED BY THE CONTRACT ADMINISTRATOR.
 2. CONSTRUCTION STAGING IN ACCORDANCE WITH THE 2008 EDITION OF THE CITY OF WINNIPEG "MANUAL OF TEMPORARY TRAFFIC CONTROL IN WORK AREAS ON CITY STREETS".
 3. MAINTAIN EXISTING DRAINAGE AND INSTALL PROPOSED DRAINAGE APPURTENANCES AS REQUIRED DURING THE APPROPRIATE STAGES AND AS DIRECTED BY THE CONTRACT ADMINISTRATOR.
 4. TO FACILITATE LDS INSTALLATION, SAWCUT EXISTING PAVEMENT (FULL DEPTH) PRIOR TO REMOVAL.
 5. CONSTRUCT TEMPORARY ASPHALT PAVEMENT AND RAMPS AS REQUIRED TO FACILITATE THE CONSTRUCTION STAGING. THE TEMPORARY ASPHALT PAVEMENT SHALL CONSIST OF 50mm - TYPE 1A ASPHALTIC CONCRETE PAVEMENT.

APPENDIX 'C'

Inkster Feedermain

24" (600mm) CL-12

3EB Load vs Cover with Live Loading

