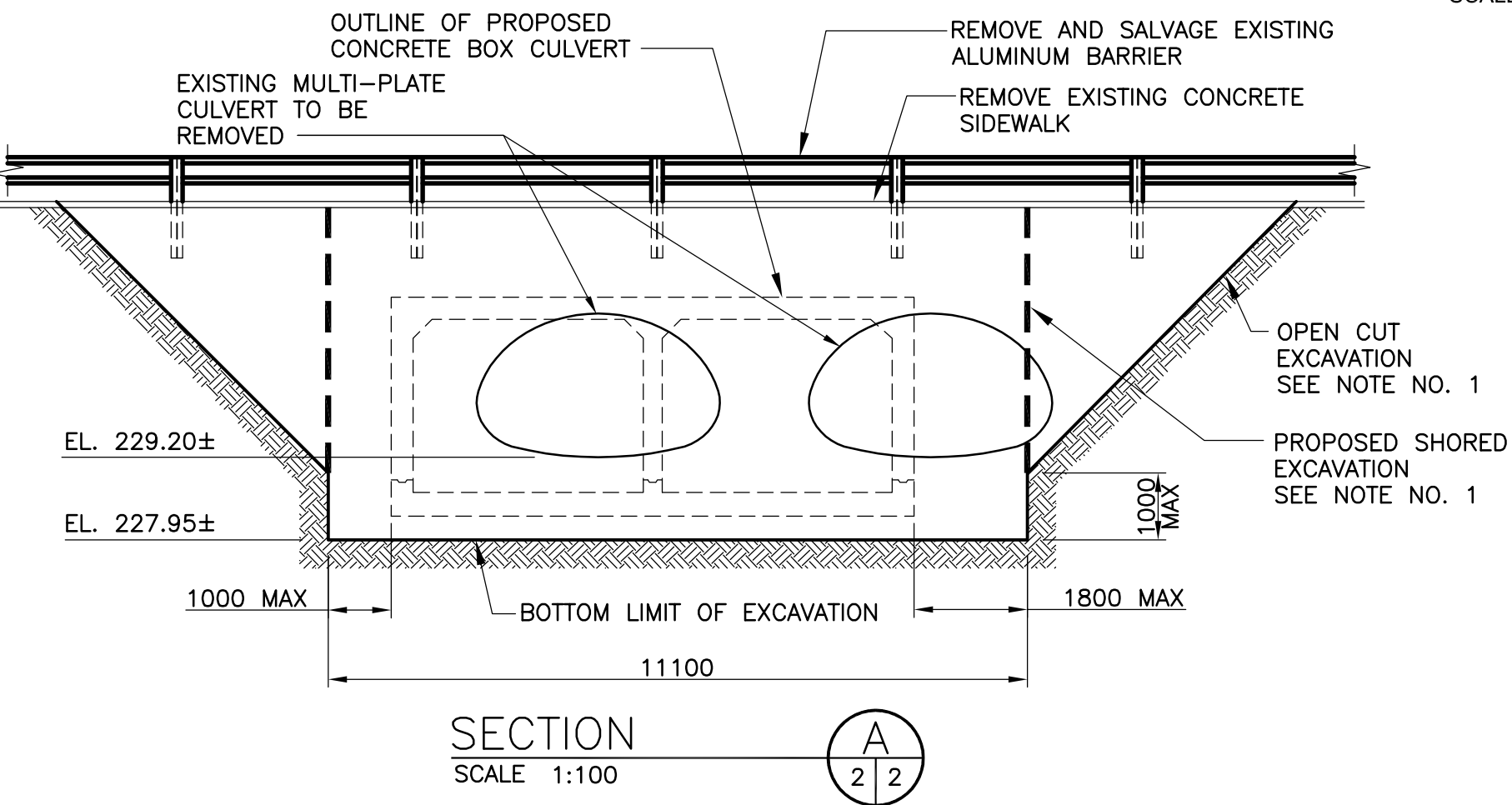
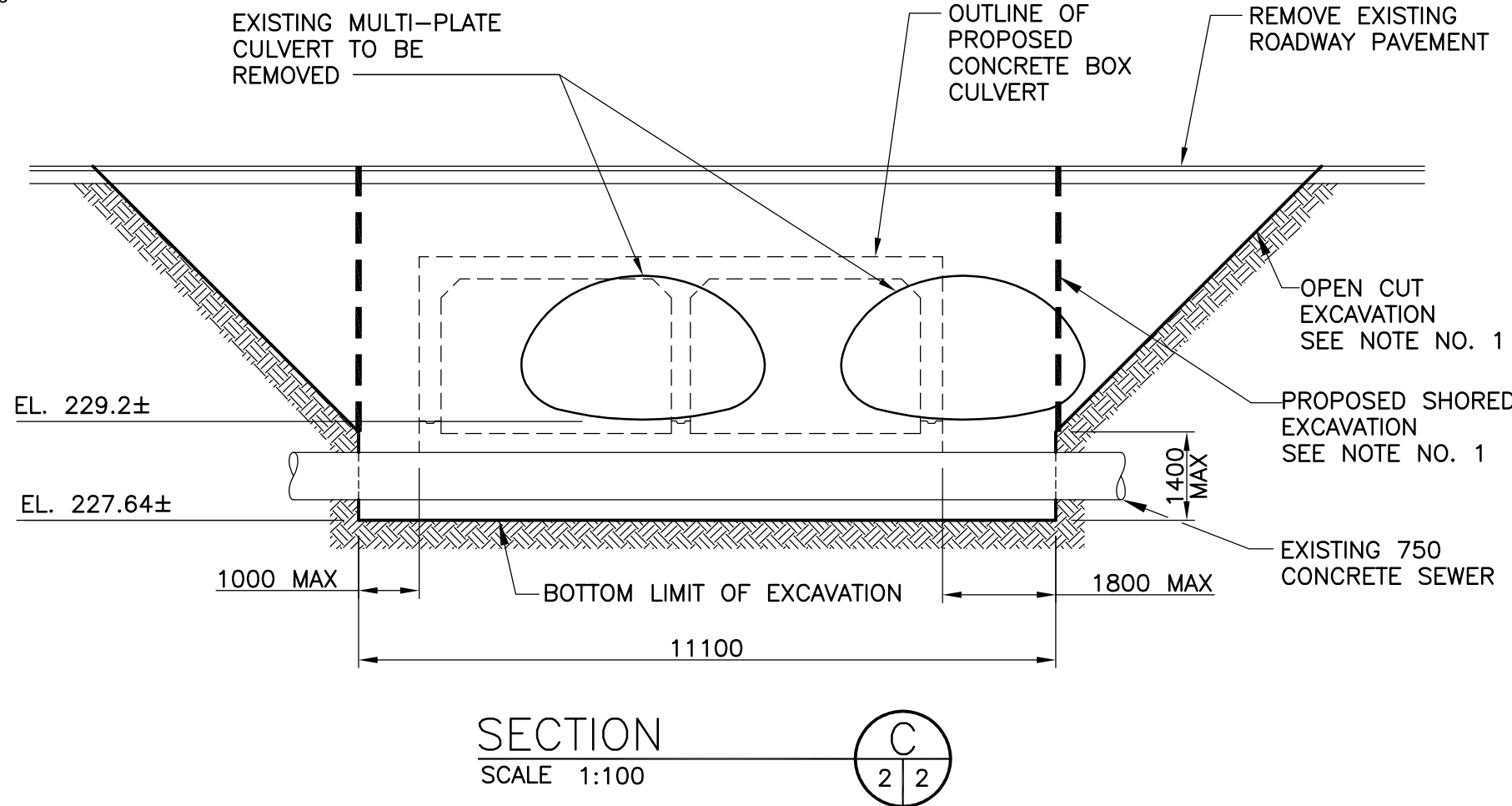


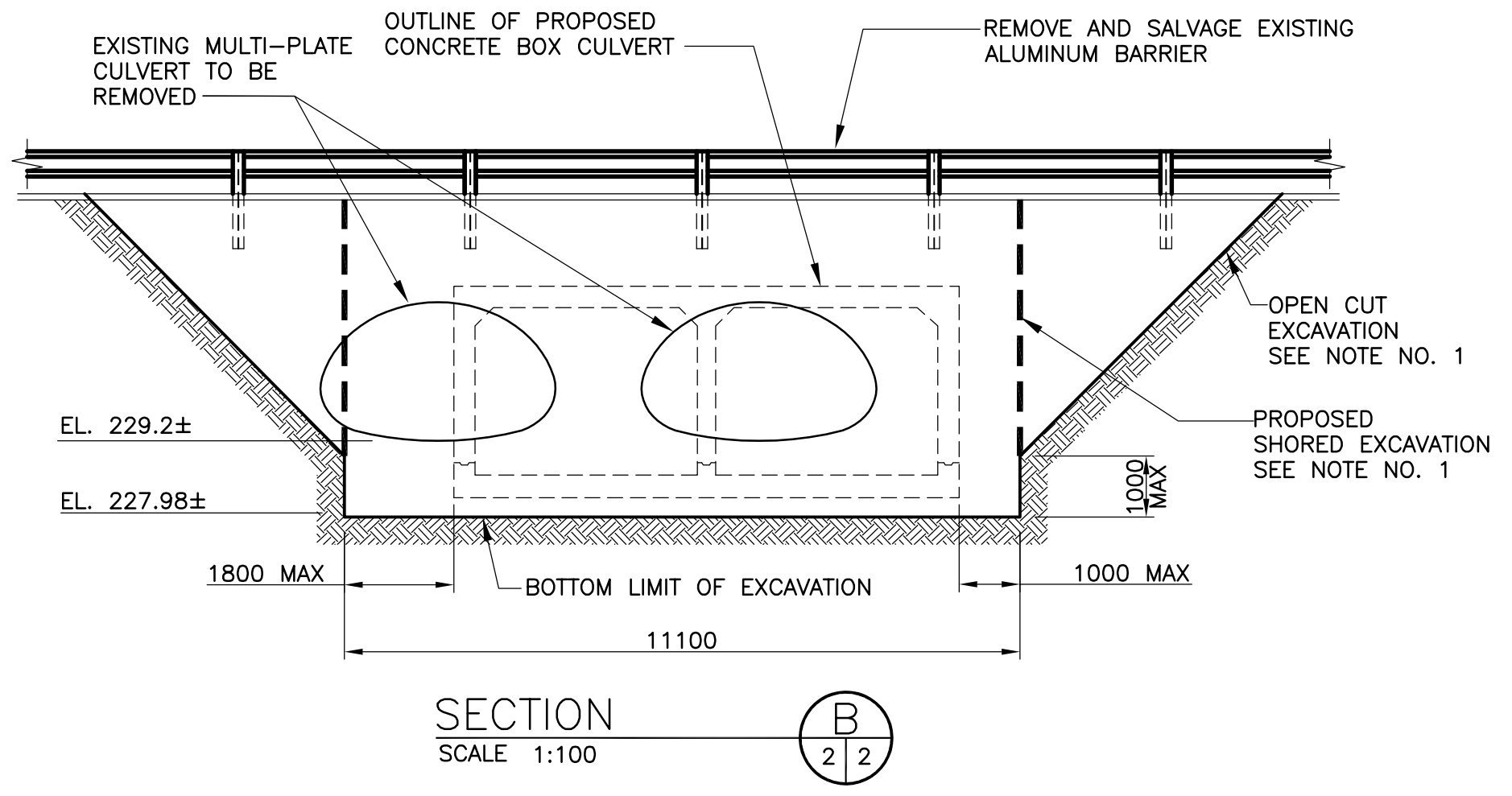
PLAN
SCALE 1:250



SECTION A-A
SCALE 1:100



SECTION C-C
SCALE 1:100



SECTION B-B
SCALE 1:100

NOTES:

- CONTRACTOR TO EXCAVATE IN ACCORDANCE WITH THE REQUIREMENTS OF THE MANITOBA DEPARTMENT OF LABOUR AND IMMIGRATION, WORKPLACE SAFETY AND HEALTH DIVISION. SHORING MAY BE PLACED "TIGHT" AND USED AS THE OUTSIDE FORM OF THE BOX CULVERT.
- SLOPE SHOWN FOR OPEN CUT EXCAVATION IS A MAXIMUM AND THE CONTRACTOR SHALL EXCAVATE AT A SHALLOWER SLOPE IF REQUIRED TO MAINTAIN STABILITY.
- UTILITIES ARE SHOWN FROM THE BEST INFORMATION POSSIBLE BUT MAY NOT BE ACCURATE. CONTRACTOR TO CONTACT EACH UTILITY FOR LOCATIONS PRIOR TO EXCAVATION.

A. Dean Gould P.Eng and Associates		Location: St. Mathews - Omands Creek Crossing UTM E N		TEST HOLE NO. 1	PROJECT NO.	
Project Description: St. Mathews at Omands Creek - SE		Drilling Date: March 12, 2009		Driller: MAPLE LEAF ENVIRONMENTAL		
Client: Dillon Consulting		Logged By: R.J. GOULD				
SPL No	Depth (m)	Log	SOIL DESCRIPTION	MOISTURE CONTENT		
			Collar Elevation 233.510	10	20	30 40 50 60 70 80
	0-1.67m		Gravel Fill			
	1.67-8.43m		Brown Clay mixed with grey and becoming moist and soft at D-4.6m			
	8.43-10.67m		Tan silt Till			
End of Hole at 10.69 m No water in hole following drilling operation						
Dutch Cone Test Results						
	Depth		N blows/300mm			
	8.83-9.14		20			
	9.14-9.44		25			
	9.44-9.74		32			
	9.74-10.04		38			
	10.04-10.34		40			
	10.34-10.64		45			
	10.36-10.67		53			

LEGEND
Topsoil [] Silt [] Brown clay [] Grey clay []
Glacial till [] Sand and gravel []
Plastic Limit x.....x Liquid Limit
N=Dutch Cone penetration tests blows/300mm
Qu= Unconfined Compression Strength (kPa)

TEST HOLE 1

A. Dean Gould P.Eng and Associates		Location: St. Mathews - Omands Creek Crossing UTM E N		TEST HOLE NO. 2	PROJECT NO.	
Project Description: St. Mathews at Omands Creek - NE		Drilling Date: March 12, 2009		Driller: MAPLE LEAF ENVIRONMENTAL		
Client: Dillon Consulting		Logged By: R.J. GOULD				
SPL No	Depth (m)	Log	SOIL DESCRIPTION	MOISTURE CONTENT		
			Collar Elevation 232.300	10	20	30 40 50 60 70 80
	0-2.29m		Gravel Fill			
	2.29-2.74m		Brown Clay mixed with grey and becoming moist and soft at D-			
	2.74-9.45m		Grey Lacustrine highly plastic Clay			
	qu@7.92 = 70.66 kPa		Unit W=1687 kg/cm			
	9.45m		Tan silt Till			
End of Hole at 9.45 m No water in hole following drilling operation						
Dutch Cone Test Results						
	Depth		N blows/300mm			
	7.92-8.38m		69			

LEGEND
Topsoil [] Silt [] Brown clay [] Grey clay []
Glacial till [] Sand and gravel []
Plastic Limit x.....x Liquid Limit
N=Dutch Cone penetration tests blows/300mm
Qu= Unconfined Compression Strength (kPa)

TEST HOLE 2

A. Dean Gould P.Eng and Associates		Location: St. Mathews - Omands Creek Crossing UTM E N		TEST HOLE NO. 3	PROJECT NO.	
Project Description: St. Mathews at Omands Creek - NW		Drilling Date: March 12, 2009		Driller: MAPLE LEAF ENVIRONMENTAL		
Client: Dillon Consulting		Logged By: R.J. GOULD				
SPL No	Depth (m)	Log	SOIL DESCRIPTION	MOISTURE CONTENT		
			Collar Elevation 230.150	10	20	30 40 50 60 70 80
	0-1.52m		Gravel Fill with some clay, natural or original soil profile commences at 1.52m same level as Omands Creek - Water inflow at 1.37m			
	1.52-3.92m		Brown and Grey, highly plastic lacustrine Clay			
	4.57m		test hole sloughed-			
	7.92-8.38m		Tan silt Till			
End of Hole at 8.38 m auger refusal No water in hole following drilling operation						
Dutch Cone Test Results						
	Depth		N blows/300mm			
	7.92-8.38m		69			

LEGEND
Topsoil [] Silt [] Brown clay [] Grey clay []
Glacial till [] Sand and gravel []
Plastic Limit x.....x Liquid Limit
N=Dutch Cone penetration tests blows/300mm
Qu= Unconfined Compression Strength (kPa)

TEST HOLE 3

A. Dean Gould P.Eng and Associates		Location: St. Mathews - Omands Creek Crossing UTM E N		TEST HOLE NO. 4	PROJECT NO.	
Project Description: St. Mathews at Omands Creek - SW		Drilling Date: March 12, 2009		Driller: MAPLE LEAF ENVIRONMENTAL		
Client: Dillon Consulting		Logged By: R.J. GOULD				
SPL No	Depth (m)	Log	SOIL DESCRIPTION	MOISTURE CONTENT		
			Collar Elevation 230.000	10	20	30 40 50 60 70 80
	0-1.52m		Brown weathered silty Clay (fill)			
	1.52-7.92m		Grey, highly plastic lacustrine Clay			
	water inflow at 2.13 m		organic odor			
	7.92-8.38m		Tan silt Till			
End of Hole at 8.38 m auger refusal No water in hole following drilling operation						
Dutch Cone Test Results						
	Depth		N blows/300mm			
	7.92-8.38m		69			

LEGEND
Topsoil [] Silt [] Brown clay [] Grey clay []
Glacial till [] Sand and gravel []
Plastic Limit x.....x Liquid Limit
N=Dutch Cone penetration tests blows/300mm
Qu= Unconfined Compression Strength (kPa)

TEST HOLE 4



B.M. ELEV.	37-023 1320 Ellice Ave. N.W. Corner Bldg Fndtn.	DESIGNED BY	KGW
	233.965 m	DRAWN BY	RCB
		CHECKED BY	BWB
		APPROVED BY	ORIGINAL SIGNED BY: BWB
		HOR. SCALE	AS SHOWN
		VERTICAL	AS SHOWN
ISSUED FOR TENDER	2009.11.05	DATE	2009.11.02
NO. REVISIONS	DATE	BY	DATE

ENGINEER'S SEAL	ORIGINAL SIGNED BY	DATE
	K.G. WILLIS	2009.11.05
	CONSULTANT PROJECT NO.	088683



RELEASED FOR ORIGINAL CONSTRUCTION SIGNED BY:	DATE
M.B. CHISLETT	2009.11.23

THE CITY OF WINNIPEG PUBLIC WORKS DEPARTMENT

OMAND'S CREEK CULVERT THROUGH ST. MATTHEWS AVENUE

DEMOLITION EXCAVATION AND TEST HOLES

CITY DRAWING NUMBER: C331-09-02
SHEET 2 OF 13
BID OPPORTUNITY NUMBER: 801-2009

BOREHOLE LOGS
METRIC
WHOLE NUMBERS INDICATE MILLIMETRES
DECIMAL NUMBERS INDICATE METRES

G:\CAD\088683\Contract\Tender\Drawings\Revisions\088683_S1(1)P.dwg