C2-CU-016

MANHOLE, CATCH BASIN, CATCH PIT & DITCH INLET STRUCTURE AND LOCATION TABLE												
STRUCTURE NAME	DESCRIPTION	FRAME & COVER	NORTHING	EASTING	EX RIM ELEV	PROP RIM ELEV	INV NORTH	INV SOUTH	INV EAST	INV WEST	BOTTOM ELEV	CB LEAD
CB.151	SD-025 CB	BEEHIVE	5523488.150	629763.138		233.870		SW 232.870	SW 232.770		232.17	19.6m OF 250 SSP @ 2.50%
CB.157	SD-024 CB		5523487.904	629808.579		233.427	232.382				231.79	4.1m OF 250 SSP @ 1.99%
CB.160	SD-024 CB		5523487.125	629832.028		233.296	232.256				231.66	4.6m OF 250 SSP @ 1.50%
CB.161	SD-024 CB	AP-011	5523509.495	629806.546		233.185		232.145			231.54	17.7m OF 250 SSP @ 1.50%
CB.162	SD-024 CB	AP-011	5523507.035	629891.559		233.300		231.660			231.06	16.7m OF 250 SSP @ 1.50%
CB.163	SD-024 CB	AP-011	5523487.006	629897.411		233.133	231.493				230.89	4.2m OF 250 SSP @ 1.49%
HW.1	Null Structure		5523484.582	629758.861		233.872					???	5.6m OF 300 SSP @ 12.19%

MANHOLE STRUCTURE AND LOCATION TABLE										
STRUCTURE NAME	DESCRIPTION	NORTHING	EASTING	EX RIM ELEV	PROP RIM ELEV	BOTTOM ELEV				
MH.L51	BASE Ø 1200, HT 1200	5523491.971	629809.212		233.502	231.26				
MH.L52	BASE Ø 1200, HT 1200	5523490.953	629895.887		233.220	230.99				
MH.L59	BASE Ø 1200, HT 1200	5523491.698	629832.475		233.389	231.20				
MH.L69	BASE Ø 1200, HT 1200	5523492.913	629782.140		233.637	231.86				

C2-CU-017

MANHOLE, CATCH BASIN, CATCH PIT & DITCH INLET STRUCTURE AND LOCATION TABLE												
STRUCTURE NAME	DESCRIPTION	FRAME & COVER	NORTHING	EASTING	EX RIM ELEV	PROP RIM ELEV	INV NORTH	INV SOUTH	INV EAST	INV WEST	BOTTOM ELEV	CB LEAD
CB.5	SD-024 CB	AP-011	5523501.684	629996.506		233.088	232.048				231.45	4.2m OF 250 SSP @ 1.51%
CB.6	SD-024 CB	AP-011	5523521.571	629989.511		233.195		232.161			231.56	17.0m OF 250 SSP @ 1.06%
CB.7	SD-024 CB	AP-011	5523521.037	630110.882		232.896	231.856	232.150			231.26	21.3m OF 250 SSP @ 1.50%
CB.8	SD-024 CB	AP-011	5523540.782	630102.908		232.917	231.277	231.536			230.68	21.3m OF 250 SSP @ 1.50%
CB.9	SD-024 CB	AP-011	5523544.252	630248.068		232.577	231.537				230.94	20.9m OF 250 SSP @ 1.50%
CB.10	SD-024 CB	AP-011	5523565.127	630246.798		232.585	230.945	231.223			230.34	20.9m OF 250 SSP @ 1.50%
CB.150	SD-025 CB	AP-021	5523534.293	629998.171		233.180			231.480		231.79	18.7m OF 250 SSP @ 1.50%
CB.179	SD-024 CB	AP-021	5523508.582	630037.289		233.273	232.233	232.400			231.63	32.6m OF 250 SSP @ 1.50%
HW.2	HEADWALL		5523503.316	630039.078		233.623					???	5.6m OF 300 SSP @ 16.18%
HW.3	HEADWALL		5523514.989	630111.544		233.598					???	6.1m OF 300 SSP @ 18.49%

MANHOLE STRUCTURE AND LOCATION TABLE										
STRUCTURE NAME	DESCRIPTION	NORTHING	EASTING	EX RIM ELEV	PROP RIM ELEV	BOTTOM ELEV				
MH.L34	BASE Ø 1800, HT 1800 TRANSITION 1800x1200	5523577.974	630280.336		232.990	230.08				
MH.L53	BASE Ø 1500, HT 1500 TRANSITION 1500x1200	5523505.765	629995.668		233.172	230.72				
MH.L54	BASE Ø 1500, HT 1500 TRANSITION 1500x1200	5523533.938	630016.832		233.400	230.58				
MH.L55	BASE Ø 1800, HT 1800 TRANSITION 1800x1200	5523548.176	630101.767		233.115	230.36				
MH.L56	BASE Ø 1800, HT 1800 TRANSITION 1800x1200	5523572.162	630245.731		232.836	230.18				

WARNING

IF POWER EQUIPMENT OR EXPLOSIVES ARE TO BE USED FOR EXCAVATION ON THIS PROJECT THE CONTRACTOR MUST:

1. NOTIFY THE GAS COMPANY OF THE PROPOSED LOCATION OF EXCAVATION.

2. TAKE PRECAUTION TO AVOID DAMAGE TO GAS COMPANY INSTALLATIONS SEE PROVINCIAL REGULATION 210/72 FOR DETAILS.

3. OBTAIN EXCAVATION PERMITS PRIOR TO CONSTRUCTION.

	WATER MAIN			PIPE ABANDONMENTS	_	150 W <u>M</u>	WATER MAIN	150 WM	I
<i>-</i>	HYDRANT	+	-	SURVEY BAR		+	HYDRANT	t	UND
8	VALVE	•	ο̈́	CURB STOP	•	X	VALVE	X	
300 LDS	LAND DRAINAGE SEWER	300 LDS		REDUCER	—	300 LDS	LAND DRAINAGE SEWER	300 LDS	<u></u>
250 WWS	WASTE WATER SEWER	250 WWS	X	COUPLING	x	250 WWS	WASTE WATER SEWER	250 WWS	SUPV.
	SEWER SERVICE PIPE	<u>SSP</u>	V	ANODE	J.		PAVEMENT CROWN		
[DRAINAGE CONNECTION PIPE			HYDRO		→	N/W PROPERTY LINE		
0	MANHOLE	•		MTS			S/E PROPERTY LINE		LOCATI
	CATCH BASIN			GAS			N/W GUTTER		LOCATI SHOWN AVAIL
Δ	CURB INLET	A	+	TESTHOLE		- $+$ $-$	S/E GUTTER		THAT A
	CULVERT		•—•	LAMP STANDARD					CONFIL LOCA OBTAIL
EXISTING	LEGEND - PLAN	NEW	EXISTING	LEGEND - PLAN	NEW	EXISTING	LEGEND - PROFILE	NEW	BEFOR
	300 LDS 250 WWS	⊗ VALVE 300 LDS LAND DRAINAGE SEWER 250 WWS WASTE WATER SEWER SEWER SERVICE PIPE DRAINAGE CONNECTION PIPE ○ MANHOLE □ CATCH BASIN △ CURB INLET □ CULVERT	⊗ VALVE 300 LDS LAND DRAINAGE SEWER 250 WWS WASTE WATER SEWER SEWER SERVICE PIPE DRAINAGE CONNECTION PIPE MANHOLE CATCH BASIN CURB INLET CULVERT	⊗ VALVE ● ♂ 300 LDS LAND DRAINAGE SEWER 300 LDS □ 250 WWS WASTE WATER SEWER 250 WWS ★ SEWER SERVICE PIPE _ SSP ● DRAINAGE CONNECTION PIPE ○ MANHOLE ● ○ CATCH BASIN ■ △ CURB INLET ▲	⊗ VALVE ⊕ ♂ CURB STOP 300 LDS LAND DRAINAGE SEWER 300 LDS □ □ REDUCER 250 WWS WASTE WATER SEWER 250 WWS ★ COUPLING SEWER SERVICE PIPE SSP □ □ DRAINAGE CONNECTION PIPE □ HYDRO MANHOLE □ MTS CATCH BASIN □ GAS CURB INLET ★ TESTHOLE LAMP STANDARD LAMP STANDARD	⊗ VALVE ⊕ ♂ CURB STOP → 300 LDS LAND DRAINAGE SEWER 300 LDS → REDUCER → 250 WWS WASTE WATER SEWER 250 WWS → COUPLING → SEWER SERVICE PIPE SSP ⇒ ANODE ⇒ DRAINAGE CONNECTION PIPE — HYDRO HYDRO MANHOLE • MTS GAS CATCH BASIN • GAS TESTHOLE CULVERT • LAMP STANDARD LAMP STANDARD	⊗ VALVE ⊕ ♂ CURB STOP → X 300 LDS LAND DRAINAGE SEWER 300 LDS □ REDUCER □ 300 LDS 250 WWS WASTE WATER SEWER 250 WWS ★ COUPLING ★ 250 WWS	⊗ VALVE ♦ ♂ CURB STOP ✓ X VALVE 300 LDS LAND DRAINAGE SEWER 300 LDS LAND DRAINAGE SEWER 250 WWS WASTE WATER SEWER 250 WWS X COUPLING X 250 WWS WASTE WATER SEWER SEWER SERVICE PIPE SSP > ANODE > PAVEMENT CROWN DRAINAGE CONNECTION PIPE HYDRO WYBROPERTY LINE MANHOLE MTS S/E PROPERTY LINE CATCH BASIN GAS N/W GUTTER CURB INLET A TESTHOLE S/E GUTTER CULVERT LAMP STANDARD S/E GUTTER	⊗ VALVE ♦ ♂ CURB STOP ↑ X VALVE X 300 LDS LAND DRAINAGE SEWER 300 LDS □ REDUCER □ X LAND DRAINAGE SEWER 300 LDS 250 WWS WASTE WATER SEWER 250 WWS ✓ COUPLING ★ 250 WWS WASTE WATER SEWER 250 WWS

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Certificate of Authorization AECOM Canada Ltd. No. 4671 Date:__

BID OPPORTUNITY NO. 473-2016

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Winnipeg	PUBLIC WORKS DEPARTMENT

Winnipeg			
VAVERLEY STREET UNDERPASS AT CN MILE 3.89 RIVERS SUB CONTRACT 2: UNDERPASS STRUCTURE, RAILWORKS,	CITY DRAWING NUMBER U239-2016-C2-CU-035		
ROADWORKS, LAND DRAINAGE SEWER, PUMPING STATION AND LANDSCAPING WORKS	SHEET OF 41		
LAND DDAINAGE CYCTEM	CONSULTANT DRAWING NUMBER		

LAND DRAINAGE SYSTEM C2-CU-035 STRUCTURE & LOCATION SCHEDULE 1