

C2-CU-018

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.11	SD-024 CB	AP-011	5523572.841	630416.931		232.539	NW 231.499				230.90	36.3m OF 300 SSP @ 1.50%
CB.12	SD-024 CB	AP-011	5523601.375	630459.631		232.331	230.691	231.495			230.09	10.2m OF 300 SSP @ 1.50%
CB.13	SD-024 CB	AP-011	5523609.287	630565.256		232.462	231.422				230.82	21.3m OF 250 SSP @ 1.50%
CB.14	SD-024 CB	AP-011	5523630.022	630560.195		232.369	NE 230.728	231.101			230.13	21.3m OF 250 SSP @ 1.50%
CB.60	SD-024 CB	AP-011	5523661.159	630659.439		232.935	230.075	SE 230.280	231.576		229.48	2.5m OF 250 SSP @ 1.50%
CB.144	SD-024 CB		5523645.937	630682.070		232.836	NW 231.000				230.40	27.3m OF 250 SSP @ 2.64%
CB.145	SD-024 CB		5523596.520	630530.933		232.882	NW 228.893				228.29	30.5m OF 250 SSP @ 1.29%
CB.146	SD-024 CB		5523587.793	630494.469		232.895	NE 230.500				229.72	30.1m OF 250 SSP @ 4.38%
CP.12	SD-023 CP		5523589.761	630466.397		232.547	NW 231.697				231.10	13.4m OF 250 SSP @ 1.50%
CP.42	SD-023 CP		5523661.898	630661.797		232.922			231.613		229.61	2.5m OF 250 SSP @ 1.50%

MANHOLE STRUCTURE AND LOCATION TABLE						
STRUCTURE NAME	DESCRIPTION	NORTHING	EASTING	EX RIM ELEV	PROP RIM ELEV	BOTTOM ELEV
MH.L13	BASE Ø 1800, HT 1800 TRANSITION 1800x1200	5523666.037	630657.830		233.086	228.77
MH.L14	BASE Ø 1800, HT 1800 TRANSITION 1800x1200	5523635.672	630561.819		232.658	228.64
EX MH.L15	SD-010 2400 mm	5523615.225	630506.807		232.867	228.48
MH.L33	BASE Ø 2100, HT 2100 TRANSITION 2100x1200	5523600.895	630393.937		232.970	229.76
MH.L57	BASE Ø 2100, HT 1800 TRANSITION 2100x1200	5523589.577	630330.959		233.232	229.94
MH.L58	BASE Ø 2100, HT 2100 TRANSITION 2100x1200	5523611.538	630457.852		232.830	229.61

C2-CU-019

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.19	SD-024 CB	AP-011	5523656.989	630720.556		232.337	231.297		231.403	231.471	230.70	13.7m OF 250 SSP @ 1.50%
CB.20	SD-024 CB	AP-011	5523670.575	630719.184		232.465	230.862	231.092	231.467	231.452	230.22	13.7m OF 250 SSP @ 1.50%
CB.25	SD-024 CB		5523716.139	630905.093		231.990	NW 230.977	SE 230.360 SW 230.835			229.76	17.0m OF 300 SSP @ 1.50%
CB.26	SD-024 CB		5523676.212	630902.876		231.184		SE 229.560			228.96	13.1m OF 300 SSP @ 1.50%
CB.43	SD-024 CB		5523669.263	630928.793		230.977	230.196		229.692	229.382	228.78	15.2m OF 300 SSP @ 1.50%
CB.45	SD-024 CB		5523734.624	630929.897		232.164	231.263			230.705	230.10	2.5m OF 250 SSP @ 2.02%
CB.46	SD-024 CB	AP-011	5523675.915	630836.982		231.552	230.394		229.854	230.788	229.31	2.5m OF 250 SSP @ 2.00%
CB.49	SD-024 CB	AP-011	5523716.667	630950.660		231.806		230.166	230.875		229.57	2.5m OF 250 SSP @ 2.01%
CB.54	SD-024 CB		5523698.499	630867.686		231.542	230.050	229.904	230.344	230.630	229.30	2.6m OF 250 SSP @ 2.00%
CB.55	SD-024 CB	AP-011	5523694.365	630941.800		231.606	NE 229.966	SE 230.554		230.488	229.37	2.5m OF 250 SSP @ 2.01%
CB.56	SD-024 CB	AP-011	5523694.384	630939.309		231.578			230.538	230.655	229.94	2.3m OF 250 SSP @ 2.00%
CB.57	SD-024 CB	AP-011	5523676.814	630876.668		231.188			230.078	229.548	228.95	2.4m OF 300 SSP @ -2.00%
CB.58	SD-024 CB	AP-011	5523669.577	630783.029		231.858	230.194	SE 230.593	230.946		229.62	32.2m OF 250 SSP @ 1.50%
CB.59	SD-024 CB	AP-018	5523667.270	630936.316		230.849		229.886		229.809	229.21	2.5m OF 250 SSP @ 1.98%
CB.61	SD-024 CB		5523691.876	631035.481		232.631	NE 230.991			231.718	230.39	2.5m OF 250 SSP @ 1.99%
CB.62	SD-024 CB	AP-011	5523692.189	630992.936		232.247	NW 231.207			231.384	230.61	2.5m OF 250 SSP @ 2.01%
CB.63	SD-024 CB		5523708.175	631063.031		232.525		230.885			230.28	10.5m OF 250 SSP @ 14.11%
CB.64	SD-024 CB	AP-011	5523708.770	630978.499		232.074		230.878		230.608	229.83	29.5m OF 300 SSP @ 2.00%
CB.155	SD-025 CB w/ BEEHIVE INLET		5523697.096	630882.818		231.550				230.565	229.85	15.2m OF 250 SSP @ 1.45%
CB.159	SD-024 CB	AP-011	5523696.357	631076.646		232.766		230.702			230.41	3.0m OF 250 SSP @ 56.73%
CB.180	SD-024 CB		5523694.027	630827.311		231.741		230.203			230.10	20.5m OF 250 SSP @ 1.50%

**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.

**APECM**  
 Certificate of Authorization  
 AECOM Canada Ltd.  
 No. 4671 Date: \_\_\_\_\_  
 BID OPPORTUNITY NO. 473-2016

**METRIC**  
 WHOLE NUMBERS INDICATE MILLIMETRES  
 DECIMALIZED NUMBERS INDICATE METRES

<table border="1"> <tr> <td>150 WM</td> <td>WATER MAIN</td> <td>150 WM</td> <td>PIPE ABANDONMENTS</td> <td>150 WM</td> <td>WATER MAIN</td> <td>150 WM</td> </tr> <tr> <td>⊕</td> <td>HYDRANT</td> <td>⊕</td> <td>SURVEY BAR</td> <td>⊕</td> <td>HYDRANT</td> <td>⊕</td> </tr> <tr> <td>⊕</td> <td>VALVE</td> <td>⊕</td> <td>CURB STOP</td> <td>⊕</td> <td>VALVE</td> <td>⊕</td> </tr> <tr> <td>300 LDS</td> <td>LAND DRAINAGE SEWER</td> <td>300 LDS</td> <td>REDUCER</td> <td>300 LDS</td> <td>LAND DRAINAGE SEWER</td> <td>300 LDS</td> </tr> <tr> <td>250 WWS</td> <td>WASTE WATER SEWER</td> <td>250 WWS</td> <td>COUPLING</td> <td>250 WWS</td> <td>WASTE WATER SEWER</td> <td>250 WWS</td> </tr> <tr> <td>---</td> <td>SEWER SERVICE PIPE</td> <td>---</td> <td>ANODE</td> <td>---</td> <td>PAVEMENT CROWN</td> <td>---</td> </tr> <tr> <td>---</td> <td>DRAINAGE CONNECTION PIPE</td> <td>---</td> <td>HYDRO</td> <td>---</td> <td>N/W PROPERTY LINE</td> <td>---</td> </tr> <tr> <td>○</td> <td>MANHOLE</td> <td>○</td> <td>MTS</td> <td>○</td> <td>S/E PROPERTY LINE</td> <td>○</td> </tr> <tr> <td>□</td> <td>CATCH BASIN</td> <td>□</td> <td>GAS</td> <td>□</td> <td>N/W GUTTER</td> <td>□</td> </tr> <tr> <td>△</td> <td>CURB INLET</td> <td>△</td> <td>TESTHOLE</td> <td>△</td> <td>S/E GUTTER</td> <td>△</td> </tr> <tr> <td>▭</td> <td>CULVERT</td> <td>▭</td> <td>LAMP STANDARD</td> <td>▭</td> <td></td> <td>▭</td> </tr> <tr> <td>EXISTING</td> <td>LEGEND - PLAN</td> <td>NEW</td> <td>LEGEND - PLAN</td> <td>NEW</td> <td>LEGEND - PROFILE</td> <td>NEW</td> </tr> </table>	150 WM	WATER MAIN	150 WM	PIPE ABANDONMENTS	150 WM	WATER MAIN	150 WM	⊕	HYDRANT	⊕	SURVEY BAR	⊕	HYDRANT	⊕	⊕	VALVE	⊕	CURB STOP	⊕	VALVE	⊕	300 LDS	LAND DRAINAGE SEWER	300 LDS	REDUCER	300 LDS	LAND DRAINAGE SEWER	300 LDS	250 WWS	WASTE WATER SEWER	250 WWS	COUPLING	250 WWS	WASTE WATER SEWER	250 WWS	---	SEWER SERVICE PIPE	---	ANODE	---	PAVEMENT CROWN	---	---	DRAINAGE CONNECTION PIPE	---	HYDRO	---	N/W PROPERTY LINE	---	○	MANHOLE	○	MTS	○	S/E PROPERTY LINE	○	□	CATCH BASIN	□	GAS	□	N/W GUTTER	□	△	CURB INLET	△	TESTHOLE	△	S/E GUTTER	△	▭	CULVERT	▭	LAMP STANDARD	▭		▭	EXISTING	LEGEND - PLAN	NEW	LEGEND - PLAN	NEW	LEGEND - PROFILE	NEW	<p><b>UNDERGROUND STRUCTURES</b></p> <p>SUPV. U/G STRUCTURES DATE</p> <p>LOCATION OF UNDERGROUND STRUCTURES AS SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE BUT NO GUARANTEE IS GIVEN THAT ALL EXISTING UTILITIES ARE SHOWN OR THAT THE GIVEN LOCATIONS ARE EXACT. CONFIRMATION OF EXISTENCE AND EXACT LOCATION OF ALL SERVICES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION.</p>	<p>B.M. ELEV.</p>	<p><b>AECOM</b></p> <p>DESIGNED BY: MPG          CHECKED BY:          DRAWN BY: KLC          APPROVED BY:          HOR. SCALE: -          VERTICAL: -          RELEASED FOR CONSTRUCTION          CONSULTANT PROJECT NUMBER: 60321148</p>	<p>ENGINEER'S SEAL</p> <p>PROVINCE OF MANITOBA  <b>M.P.A. GAUDREAU</b>          Member          32167          REGISTERED PROFESSIONAL ENGINEER</p>	<p><b>THE CITY OF WINNIPEG</b>          PUBLIC WORKS DEPARTMENT</p> <p>WAVERLEY STREET UNDERPASS AT CN MILE 3.89 RIVERS SUB CONTRACT 2: UNDERPASS STRUCTURE, RAILWORKS, ROADWORKS, LAND DRAINAGE SEWER, PUMPING STATION AND LANDSCAPING WORKS</p> <p>CITY DRAWING NUMBER: U239-2016-C2-CU-036          SHEET 36 OF 41          CONSULTANT DRAWING NUMBER: C2-CU-036</p>
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