SIGNAL DESCRIPTION .Auto AUTO .BattNorm BATTERY OK .Вур BYPASS .BypNorm BYPASS IN NORMAL POSITION COMPUTER .Crossover IN CROSSOVER MODE FAILED .Fail FAULTED .Flt .FuelCtlRelay FUEL CONTROL RELAY .Hand SIGNAL FROM HAND SWITCH INTEGRATED INTO EQUIPMENT .HS_* .lgnitionAlarm IGNITION ALARM .lnit INITIATE LINE INPUT OK .LineOK LOCAL .Loc .Maint MAINTENANCE MANUAL .Man OCCUPIED .0cc .Off PULSE INPUT (FLOW) .Pulse_F VFD/MOTOR STARTER READY REMOTE .Rem RESET .Rst MOTOR RUNNING START .Start .Status0K STATUS OK ST0P .Stop TRIP .Trip

DISCRETE INPUT FUNCTIONAL SIGNAL DESIGNATIONS

1			
	DIS	CRETE OUTPUT FUNCTIONAL SIGNAL DESIGNATIONS	
	SIGNAL	DESCRIPTION	
	.CmdA	ANALYSIS COMMAND	
	.CmdCls	CLOSE COMMAND	
	.CmdCrossover	CROSSOVER COMMAND	
	.CmdEmergCls	EMERGENCY CLOSE COMMAND	
	.CmdF	FLOW COMMAND	
	.CmdEnb	ENABLE COMMAND	
	.CmdEngage	ENGAGE COMMAND	
	.CmdDisengage	DISENGAGE COMMAND	
	.Cmdldle	IDLE COMMAND	
	.CmdMinFuel	MINIMUM FUEL COMMAND	
	.Cmd0pn	OPEN COMMAND	
	.CmdRemRefSel	REMOTE REFERENCE SELECT COMMAND	
	.CmdRst	FAULT RESET COMMAND	
	.CmdRun	RUN COMMAND	
	.CmdRunFast	RUN FAST COMMAND	
	.CmdRunSlow	RUN SLOW COMMAND	
	.CmdSlow	SLOW OPERATE COMMAND	
	.CmdSpdOvrde	SPEED OVERIDE COMMAND	

NOTES FOR FUNCTIONAL SIGNAL DESIGNATION TABLES:

1. THESE NON-ISA DESIGNATIONS MAY BE COMBINED WITH ISA DESIGNATIONS PROVIDED THEY ARE CONNECTED VIA AN UNDERSCORE. FOR EXAMPLE, HS_Rem REPRESENTS THE SIGNAL FROM THE REMOTE POSITION OF A NON-IDENTIFIED HAND SWITCH ON A PIECE OF EQUIPMENT.

INSTRUMENT LINE SYMBOLS

INSTRUMENT SUPPLY OR CONNECTION TO PROCESS PNEUMATIC SIGNAL ELECTRIC SIGNAL L L HYDRAULIC SIGNAL XXXXX CAPILLARY TUBE ELECTROMAGNETIC OR SONIC SIGNAL GUIDED ELECTROMAGNETIC OR SONIC SIGNAL UNGUIDED

BID OPPORTUNITY NO. 231-2015

UNDERGROUND STRUCTURES

NOTE: 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.

Certificate of Authorization

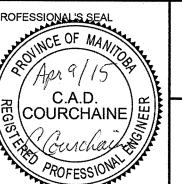
AECOM Canada Ltd.

No. 4671 Date: Arr 9/15

LOCATION APPROVED

SUPR. U/G STRUCTURES DATE COMMITTEE 0 ISSUED FOR TENDER, BID OPP. 231-2015 15/04/13 DRL NO. REVISIONS

AECOM DESIGNED BY DRAWN APPROVED DRL RELEASED FOR CONSTRUCTION NTS HOR. SCALE CONSULTANT DRAWING NO. VERT. SCALE DATE



P0005-002

Winnipeg

THE CITY OF WINNIPEG WATER AND WASTE DEPARTMENT

SHOAL LAKE **INTAKE FUEL STORAGE AND DELIVERY SYSTEM REHABILITATION**

CITY DRAWING NUMBER

PROCESS PROCESS & INSTRUMENTATION DIAGRAM **LEGEND & DETAILS**

1-0600A-P0005-002 0