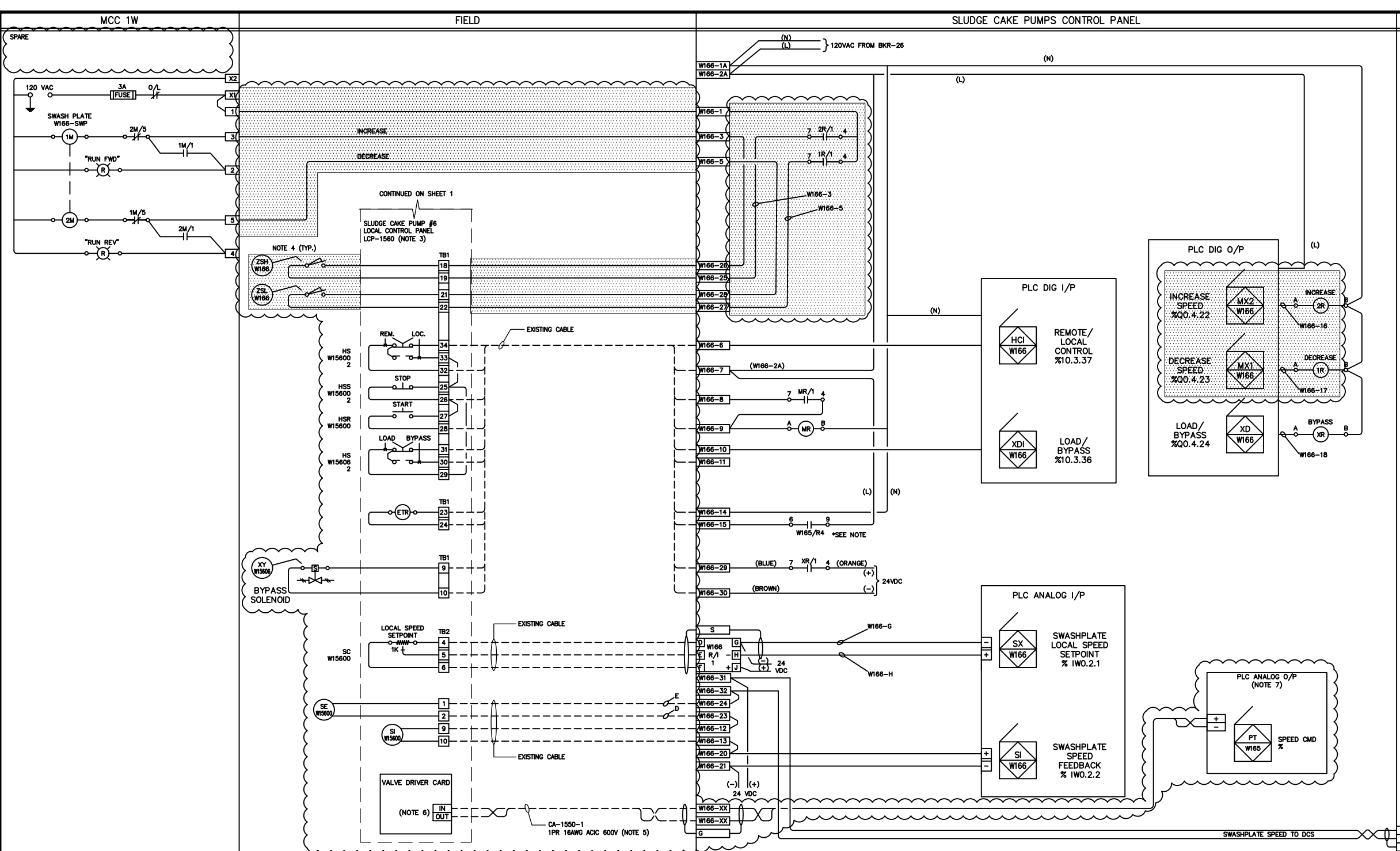


LAST SAVE: 2026/04/08 - 3:33pm
 PATH: \\kgs-file\l-r-data\Projects\2025\25-0107-017\Dwg\Elec\1-0101-AILD-W160-002.dwg
 B SIZE - 279mm x 432mm



NOTE: MR RELAY
 THE MOTOR RUN, MR RELAY IS ENERGIZED BY THE START BUTTON ON THE CAKE PUMP LOCAL PANEL. MR SEALS ITSELF IN. SEE SHEET 1 FOR WIRING OF LOCAL PANEL, W1560.

THE MR CONTACT IS USED TO START THE MAIN DRIVE MOTOR ON SHEET 1.

NOTE: W165/R4 RELAY
 SEE SHEET 1 FOR W165/R4 REMOTE START CONTROL WIRING.

NOTES:

1. THIS DRAWING SUPERCEDES EXISTING DRAWING NEP-2037.
2. ENGINEER'S STAMP APPLIES TO CLOUDED AREAS ONLY.
3. EXISTING SLUDGE CAKE PUMP PANEL TO BE DEMOLISHED AND NEW SLUDGE CAKE PANEL RECONNECTED USING EXISTING CABLING. ALL CABLING SHOWN IS EXISTING UNLESS INDICATED OTHERWISE.
4. HATCHED AREAS DENOTE ITEMS TO BE DEMOLISHED.
5. SUPPLY, INSTALL, AND CONNECT NEW CABLE.
6. TAPE BACK AND ISOLATE SHIELD ON THIS END ONLY.
7. CABLE QUANTITIES, TYPE, GAUGE, AND NUMBER OF CONDUCTORS ARE BASED ON EXISTING DOCUMENTATION AND HAVE NOT BEEN VERIFIED IN FIELD. CONTRACTOR TO CONFIRM.
8. SUPPLY, INSTALL, AND CONNECT NEW ANALOG INPUT CARD. INCLUDE ALL REQUIRED APPURTANCES INCLUDING BUT NOT LIMITED TO: TERMINALS, WIRING, DIN RAILS, PANDUIT, FOR A COMPLETE AND OPERATIONAL SYSTEM.

**ENGINEERS
 GEOSCIENTISTS
 MANITOBA**

Certificate of Authorization
 KGS Group
 No. 245

1. ALL CONTROL AND POWER WIRING TO BE #14 AWG MINIMUM, TEW AND COLOUR CODED AS FOLLOWS:
 AC LINE BLACK (BLK) GROUND GREEN (GRN)
 NEUTRAL WHITE (WHT) 24 VDC (POS) ORANGE (ORNG)
 AC CONTROL RED (RED) 24 VDC (RETURN) BROWN (BRN)
 DC CONTROL BLUE (BLU) 90 VDC PURPLE (PLE)
 INTERLOCK YELLOW (YEL)
2. ALL WIRES REQUIRE IDENTIFICATION USING PLASTIC ADHESIVE OR SLEEVE TYPE MARKERS.
3. ALL WIRES SHALL CONFORM TO EITHER THE CANADIAN ELECTRICAL CODE OR EXISTING LOCAL CODE, WHICHEVER IS APPLICABLE.
4. INDICATES SHIELDED CABLE WITH SHIELD CONNECTED TO GROUND TERMINAL.
5. "L1" DESIGNATES 120 VAC HOT } SEE POWER DISTRIBUTION
 "L2" DESIGNATES 120 VAC NEUTRAL / DWG NO: 09-MJ5129-D13
6. WIRE NUMBERS TO BE THE SAME AS THEIR CORRESPONDING TERMINAL NUMBER, EXCEPT WHERE SHOWN DIFFERENTLY.
7. TERMINAL/WIRE NUMBERS USED ON THIS DWG:
 SPARE NUMBERS ALLOCATED FOR THIS DWG:

NO.	REVISIONS	DATE	DESIGN	CHECK
00	ISSUED FOR CONSTRUCTION	2026-04-08		

KGS GROUP

ENGINEER'S SEAL

DESIGNED BY: M. BERGEN	CHECKED BY: C. ROBINSON
DRAWN BY: F. AHMED	APPROVED BY: C. ROBINSON
SCALE: NTS	DATE: 2026-04-08
ISSUED FOR CONSTRUCTION	
BY: _____ DATE: _____	
CONSULTANT NO.: 25-0107-017_A5	

THE CITY OF WINNIPEG
 WATER AND WASTE DEPARTMENT
 ENGINEERING DIVISION

**NORTH END SEWAGE TREATMENT PLANT (NEWPCC)
 SLUDGE CAKE PUMP UPGRADE
 AUTOMATION
 INSTRUMENTATION LOOP DIAGRAMS
 SLUDGE CAKE PUMP 6 CONTROL PANEL**

CITY DRAWING NUMBER	SHEET	REV.	SIZE
1-0101-AILD-W160	002	00	B