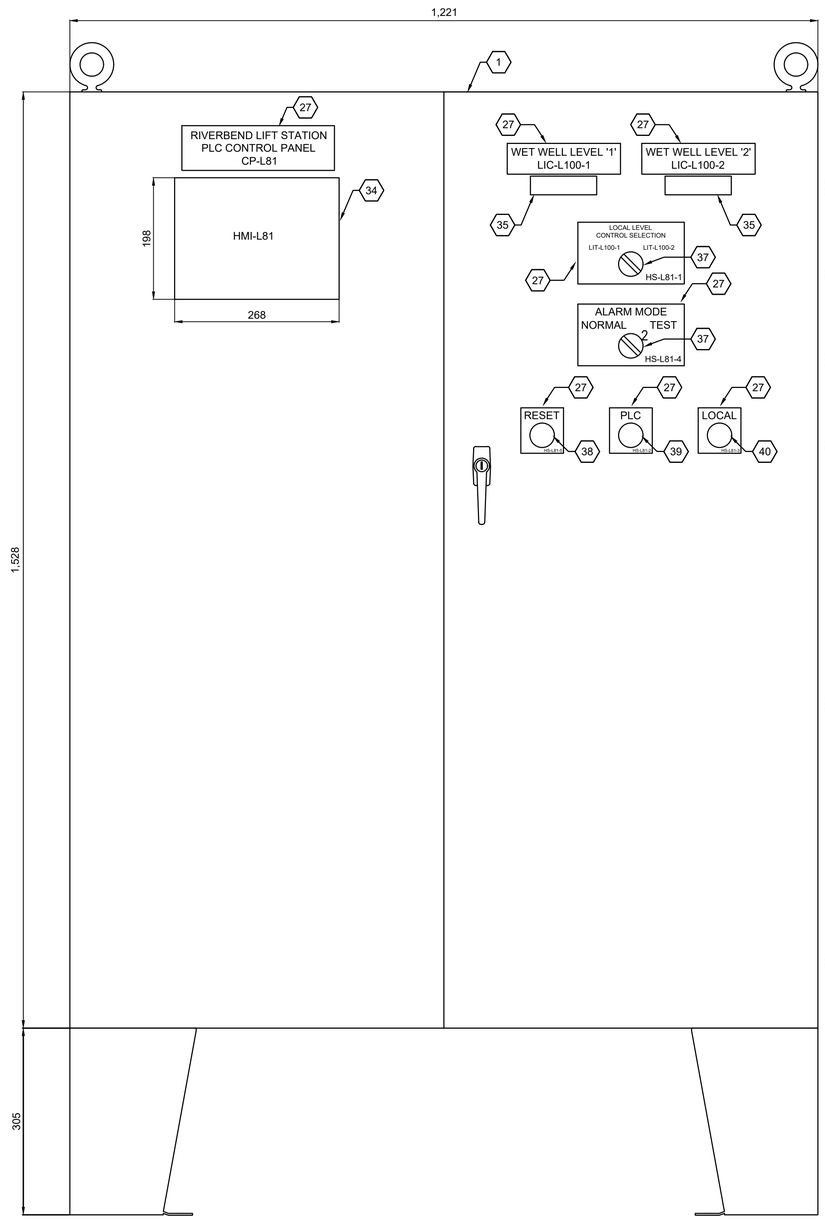
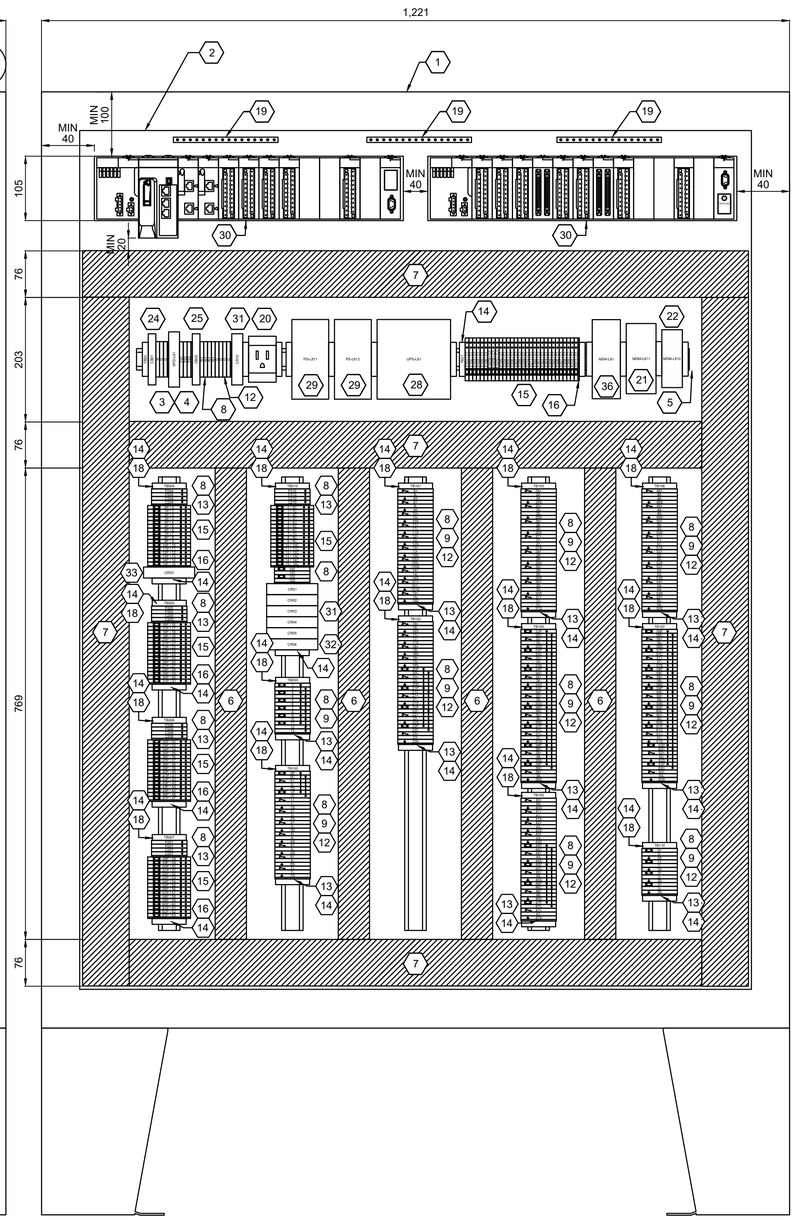
A1 SIZE - 594mm x 841mm



EXTERIOR PANEL VIEW
SCALE: 1:5



INTERIOR PANEL VIEW
SCALE: 1:5

NOTES:

1. ALL 120 VAC POWER WIRING TO BE TEW 600V, 105°C INSULATION, STRANDED COPPER, 14 AWG OR LARGER WHERE CURRENT REQUIREMENTS DICTATE AS PER CEC REQUIREMENTS.
2. ALL 24 VDC POWER WIRING TO BE TEW 600V, 105°C INSULATION, STRANDED COPPER, 14 AWG OR LARGER WHERE CURRENT REQUIREMENTS DICTATE AS PER CEC REQUIREMENTS.
3. ALL CONTROL WIRING TO BE TEW 600V, 105°C INSULATION, STRANDED COPPER, 16 AWG.
4. WIRE COLOURS:
   120 VAC POWER (HOT): BLACK. 120 VAC NEUTRAL: WHITE.
   24 VDC POWER: BLUE. 24 VDC COMMON: BROWN.
   DISCRETE CONTROL AC: RED. DISCRETE CONTROL DC: BLUE.
5. ALL ANALOG TWISTED PAIR WIRING TO BE 18 AWG SHIELDED, WITH INSULATION RATED AT 600V.
6. EXTERNAL COMPONENTS ARE TO BE LABELED AS SHOWN ON THE DRAWINGS.
7. ALL FUSES ARE TO BE PROVIDED. IN ADDITION, TWO SPARE CONTAINERS OF EACH FUSE SIZE ARE TO BE PROVIDED.
8. TEST ALL WIRING AND COMPONENTS FOR FUNCTIONAL OPERATION, CORRECT CONNECTION, CONTINUITY AND INSULATION INTEGRITY. THREE COPIES OF CERTIFIED TEST DOCUMENTATION ARE TO BE PROVIDED.
9. ALL MAJOR COMPONENTS INSIDE THE PANEL ARE TO BE LABELED WITH LAMACOIDS IN ACCORDANCE WITH MAJOR DESCRIPTIONS ON THE DRAWINGS.
10. PROVIDE WIRE BARREL FERULES FOR ALL WIRING.
11. ALL TERMINAL BLOCKS SHALL BE NUMBERED AS SHOWN IN THE DRAWINGS. COMPLETE WITH GROUP LABELING.
12. CLEARLY LABEL DEVICE IDENTIFIERS ON THE DOOR INTERIOR USING COMPUTER-GENERATED ADHESIVE LABELS OR LAMACOIDS.
13. ALL LAMACOIDS NOT CLAMPED DOWN BY PILOT DEVICES SHALL BE MECHANICALLY ATTACHED USING RIVETS.

BILL OF MATERIAL

ITEM	QTY	DESCRIPTION	MANUFACTURER	CATALOG NUMBER
1	1	TWO DOOR FLOOR-MOUNTED TYPE 12 ENCLOSURE	HOFFMAN	A604810LP
2	1	BACKPAN	HOFFMAN	A60P48
3	1	SURGE ARRESTER MODULE, 120V	PHOENIX CONTACT	PLT-SEC-T3-120-P (2905234)
4	1	SURGE ARRESTER BASE	PHOENIX CONTACT	PT-BE/FM (2839282)
5	AS REQ'D	35mm DIN RAIL	PHOENIX CONTACT	0801733
6	AS REQ'D	NARROW SLOT WIRING DUCT, 2" x 4", GREY	PANDUIT	-
7	AS REQ'D	NARROW SLOT WIRING DUCT, 3" x 4", GREY	PANDUIT	-
8	AS REQ'D	FEED-THROUGH TERMINAL	PHOENIX CONTACT	3046184
9	AS REQ'D	FUSED TERMINAL	PHOENIX CONTACT	3046142
10	AS REQ'D	FUSED CONNECTOR	PHOENIX CONTACT	3036806
11	AS REQ'D	KNIFE-DISCONNET TERMINAL	PHOENIX CONTACT	3046139
12	AS REQ'D	POTENTIAL-EARTH TERMINAL	PHOENIX CONTACT	3046207
13	AS REQ'D	TERMINAL END PLATE	PHOENIX CONTACT	3047141
14	AS REQ'D	TERMINAL END CLAMP - CLIPFIX	PHOENIX CONTACT	3022218
15	AS REQ'D	DOUBLE LEVEL FUSED TERMINAL	PHOENIX CONTACT	3044720
16	AS REQ'D	DOUBLE LEVEL TERMINAL END PLATE	PHOENIX CONTACT	3047293
17	AS REQ'D	PLUG-IN BRIDGE	PHOENIX CONTACT	3030365
18	AS REQ'D	TERMINAL BLOCK MARKER - KLM - A	PHOENIX CONTACT	1004348
19	3	GROUND BAR, 14 TAPS	ILSCO	D167-14
20	1	RECEPTACLE, 125V, 15A, DIN RAIL MOUNTED	PHOENIX CONTACT	SD-US/SC/LA/GY (2963860)
21	1	CELLUAR MODEM (SUPPLIED BY CITY)	SIERRA	RV50X
22	1	PSTN MODEM (SUPPLIED BY CITY)	PHOENIX CONTACT	PSI-DATA/FAX-MODEM/RS232 (2708203)
23	1	RELAY, 120VAC, SPDT, LED, AND BASE	OMRON	G2R-1-SN-AC120(S), P2RF-05
24	1	MCCB, 10A, DIN RAIL MOUNTED	PHOENIX CONTACT	TMC 1 F1 100 10.0A (0914167)
25	1	MCCB, 5A, DIN RAIL MOUNTED	PHOENIX CONTACT	TMC 1 F1 100 5.0A (0914138)
-	-	-	-	-
27	AS REQ'D	LAMACOID WHITE WITH BLACK TEXT	-	-
28	1	24 VDC UNINTERRUPTIBLE POWER SUPPLY, QUINT SERIES, 10A, WITH 7.2AH BATTERY	PHOENIX CONTACT	QUINT-UPS/24DC/24DC/10 (2320225) UPS-BAT/VRLA/24DC/7.2AH (2320319)
29	2	24 VDC POWER SUPPLY, QUINT SERIES, 10A	PHOENIX CONTACT	QUINT-PS/1AC/24DC/10 (2866763)
30	1	M580 PLC RACK - 1-0178L-A0002	SCHNEIDER ELECTRIC	-
31	5	RELAY, 24VDC, SPDT, LED, DIODE, AND BASE	OMRON	G2R-1-SND-DC24(S), P2RF-05
32	1	RELAY, 24VDC, 4PDT, LED, AND BASE	OMRON	LY4N-DC24, PIF14A
33	1	RELAY, 24VDC, DPDT, LED, AND BASE	OMRON	LY2N-DC24, PIF08A
34	1	HMI-L81 SCHNEIDER MAGELIS GTU SCHNEIDER SD CARD 1GB	SCHNEIDER ELECTRIC	HMIDT551 + HMIG3U HMIZSD1GS
35	2	PRECISION DIGITAL PROCESS METER	PRECISION DIGITAL	PD60007R7
36	1	TCP/IP MANAGED SWITCH - 8 PORT	SCHNEIDER ELECTRIC	TCSESB083F23F0
37	2	SELECTOR SWITCH, 30mm, 2POS, MAINT, 1NO/1NC	SCHNEIDER ELECTRIC	9001KS11BH13 + 9001KA1 AS REQ'D
38	1	PUSHBUTTON, 30mm, 1 N.O., RED	SCHNEIDER ELECTRIC	9001KR1RH5
39	1	PUSHBUTTON, 30mm, 1 N.O., BLUE	SCHNEIDER ELECTRIC	9001KR1UH5
40	1	PUSHBUTTON, 30mm, 1 N.O., YELLOW	SCHNEIDER ELECTRIC	9001KR1UH6

DRAWING NUMBER	REFERENCE DRAWINGS
1-0178L-A0013	CONTROL SCHEMATIC CONTROL PANEL CP-L81
1-0178L-A0005 TO A0012	PLC I/O WIRING DIAGRAM
1-0178L-A0004	POWER DISTRIBUTION SCHEMATIC CONTROL PANEL CP-L81
1-0178L-A0003	NETWORK DIAGRAM

125 0 125 250mm
1 : 5

NOT FOR CONSTRUCTION

ISSUED FOR TENDER

ENGINEERS GEOSCIENTISTS MANITOBA
Certificate of Authorization
Dillon Consulting Limited (MB)
No. 1789 Date:

NO.	REVISIONS	DATE	DESIGN	CHECK
0	ISSUED FOR TENDER	2023/07/20	CAL	BLM

DILLON CONSULTING

DESIGNED BY: CAL	CHECKED BY: BLM
DRAWN BY: SK	APPROVED BY: BLM
SCALE: NTS	RELEASED FOR CONSTRUCTION BY:
DATE: MARCH 2023	DATE:
CONSULTANT NO.: 22-3229	

ENGINEER'S SEAL
PROVINCE OF MANITOBA
C.A. LANGE
Member
37791
2023/07/20
REGISTERED PROFESSIONAL ENGINEER

Winnipeg
THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT

RIVERBEND LIFT PUMPING STATION
2023 UPGRADES
PANEL LAYOUT & BILL OF MATERIAL
CONTROL PANEL CP-L81

CITY DRAWING NUMBER	SHEET	REV.	SIZE
1-0178L-A0002	001	0	A1

223229-04-CP-L81 PANEL LAYOU

LAST SAVE: 2023/07/20 - 3:22pm
PATH: C:\pw working directory\projects 2022\dillon_40zn\dms37227\223229-04-CP-L81 PANEL LAYOUT 1.dwg