1 EXTERIOR PANEL VIEW
SCALE:1:5

2 INTERIOR PANEL VIEW
SCALE:1:5

GENERAL NOTES:

1. ALL POWER WIRING TO BE TEW/MTW 300V, 105°C INSULATION, STRANDED COPPER, 12AWG OR LARGER WHERE CURRENT REQUIREMENTS DICTATE AS PER CEC REQUIREMENTS.
2. ALL CONTROL WIRING TO BE TEW/MTW 300V, 105°C INSULATION, STRANDED COPPER, 16AWG.
3. ALL ANALOG WIRING TO BE 18AWG SHIELDED TWISTED PAIR, WITH INSULATION RATED AT 300V.
4. EXTERNAL COMPONENTS ARE TO BE LABELED AS SHOWN ON THE DRAWINGS.
5. ALL FUSES ARE TO PROVIDED. IN ADDITION, TWO SPARES OF EACH FUSE SIZE ARE TO BE PROVIDED.
6. TEST ALL WIRING AND COMPONENTS FOR FUNCTIONAL OPERATION, CORRECT CONNECTION, CONTINUITY AND INSULATION INTEGRITY. DOCUMENT ALL TEST RESULTS.
7. ALL MAJOR COMPONENTS INSIDE THE PANEL ARE TO BE LABELED WITH LAMACOIDS IN ACCORDANCE WITH MAJOR DESCRIPTIONS ON THE DRAWINGS.
8. PROVIDE WIRE BARREL FERRULES FOR WIRING WHERE POSSIBLE.
9. ALL TERMINAL BLOCKS SHALL BE NUMBERED AS SHOWN THE DRAWINGS, COMPLETE WITH GROUP LABELING.
10. ALL WIRES SHALL BE MARKED AS INDICATED ON THE DRAWINGS.
11. ROUTE ALL 24VDC WIRING SEPARATE FROM 120VAC WIRING.
12. JUMPER COMBES SHALL BE USED INSTEAD OF WIRE JUMPERS WHERE POSSIBLE.
13. PANEL MANUFACTURER TO PROVIDE ALL INTERNAL COMMUNICATION CABLES AS SHOWN ON NETWORK DIAGRAMS.
14. ALL EQUIPMENT SHOWN ON THIS DRAWING ARE NEW AND ARE TO BE PROVIDED AND INSTALLED BY THE CONTRACTOR UNLESS OTHERWISE INDICATED.

NO.	DRAWING NUMBER	REFERENCE DRAWING TITLE
10	–	–
9	–	–
8	–	–
7	–	–
6	–	–
5	1-0162L-A0017-001	CONTROL SCHEMATIC PLC CONTROL PANEL CP-L81 PLC MODE & LOCAL MODE PUMP CONTROLS
4	1-0162L-A0006-002	AUTOMATION POWER DISTRIBUTION SCHEMATIC PLC CONTROL PANEL CP-L81
3	1-0162L-A0006-001	AUTOMATION POWER DISTRIBUTION SCHEMATIC PLC CONTROL PANEL CP-L81
2	1-0162L-A0005-001	AUTOMATION NETWORK BLOCK DIAGRAM PLC CONTROL PANEL CP-L81
1	1-0162L-A0004-002	AUTOMATION PANEL LAYOUT & BILL OF MATERIALS PLC CONTROL PANEL CP-L81

REFERENCE DRAWINGS

100 0 100 200 300 400
SCALE: 1:5mm

ENGINEERS GEOSCIENTISTS MANITOBA
Certificate of Authorization
KGS Group
No. 245

B.M.
ELEV.

NO.	REVISIONS	DATE (YYYY/MM/DD)	BY
0	ISSUED FOR CONSTRUCTION	2023 03 24	DDW

KGS GROUP

DESIGNED BY	A. NIRMAL	CHECKED BY	DDW
DRAWN BY	R. GASPAR	APPROVED BY	DDW
SCALE: HORIZONTAL	NTS	RELEASED FOR CONSTRUCTION	
VERTICAL	NTS		
DATE	2022/07/18	DATE	
PLOT DATE:	2023 03 23		

ENGINEER'S SEAL
PROVINCE OF MANITOBA
D.D. WILSON
Member
22552
2023-03-23
REGISTERED PROFESSIONAL ENGINEER

CONSULTANT DRAWING NUMBER
22-0107-004-A04.01

BID OPPORTUNITY: 864-2022

Winnipeg

THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
ENGINEERING DIVISION

METCALFE LIFT PUMPING STATION
2022 UPGRADES
AUTOMATION

PANEL LAYOUT & BILL OF MATERIALS
PLC CONTROL PANEL CP-L81

CITY DRAWING NUMBER 1-0162L-A0004-001
SHEET 7 OF 109

FILE PATH: P:\Projects\2022\22-0107-004\Dwg\Elec\
FILE NAME: 1-0162L-A0004-001.dwg