



**A**  
INTERIOR PANEL VIEW  
SCALE: 1:5mm

**GENERAL NOTES:**

- ALL POWER WIRING TO BE TEW/MTW 300V, 105°C INSULATION, STRANDED COPPER, 12AWG OR LARGER WHERE CURRENT REQUIREMENTS DICTATE AS PER CEC REQUIREMENTS. COMBRICKS POWER WIRING TO BE 14AWG.
- ALL CONTROL WIRING TO BE TEW/MTW 300V, 105°C INSULATION, STRANDED COPPER, 16AWG.
- ALL ANALOG WIRING TO BE 18AWG SHIELDED TWISTED PAIR, WITH INSULATION RATED AT 300V.
- COMPONENTS ARE TO BE LABELED AS SHOWN ON THE DRAWINGS.
- ALL FUSES ARE TO BE PROVIDED. IN ADDITION, TWO SPARES OF EACH FUSE SIZE ARE TO BE PROVIDED.
- TEST ALL WIRING AND COMPONENTS FOR FUNCTIONAL OPERATION, CORRECT CONNECTION, CONTINUITY AND INSULATION INTEGRITY. DOCUMENT ALL TEST RESULTS.
- ALL MAJOR COMPONENTS INSIDE THE PANEL ARE TO BE LABELED WITH LAMACOIDS IN ACCORDANCE WITH MAJOR DESCRIPTIONS ON THE DRAWINGS.
- PROVIDE WIRE BARREL FERRULES FOR WIRING WHERE POSSIBLE.
- ALL TERMINAL BLOCKS SHALL BE NUMBERED AS SHOWN THE DRAWINGS, COMPLETE WITH GROUP LABELING.
- ALL WIRES SHALL BE MARKED AS INDICATED ON THE DRAWINGS.
- ROUTE ALL 24VDC WIRING SEPARATE FROM 120VAC WIRING.
- JUMPERS SHALL BE USED INSTEAD OF WIRE JUMPERS WHERE POSSIBLE.
- PANEL MANUFACTURER TO PROVIDE ALL INTERNAL COMMUNICATION CABLES AS SHOWN ON SEGMENT AND NETWORK DIAGRAMS.

**KEYNOTE:**

- PROVIDE MODULAR CABINET ACCESSORIES AND FRAME JOINING KITS AS REQUIRED FOR A COMPLETE INSTALLATION. PROVIDE BARRIER PANELS BETWEEN JOINED OR GANGED ENCLOSURES. PROVIDE SOLID SIDES ON ENDS OF ENCLOSURE.

**BILL OF MATERIALS**

TAG	DESCRIPTION	MANUFACTURER	MODEL No.	QTY
1	TYPE 12 MODULAR ENCLOSURE WITH SUBPANEL - 1830mm x 1526mm x 408mm WITH LARGE DATA POCKET	HOFFMAN	A726016ULP, A726016ULPG	1
2	NOT USED			
3	LAMACOIDS			AS REQ'D
4	35mm DIN RAIL	PHOENIX CONTACT	0801733	AS REQ'D
5	TERMINAL BLOCK MARKER - KLM - A	PHOENIX CONTACT	1004348	AS REQ'D
6	FUSED TERMINAL - UT 4 WITH FUSE PLUG - P-FU 5X20	PHOENIX CONTACT	3046142 / 3036806	AS REQ'D
7	FEED THROUGH TERMINAL - UT 4-MTD	PHOENIX CONTACT	3046184	AS REQ'D
8	TERMINAL END PLATE - D-UT 2,5/4 TWIN	PHOENIX CONTACT	3047141	AS REQ'D
9	TERMINAL END CLAMP - CLIFFIX 35	PHOENIX CONTACT	3022218	AS REQ'D
10	NARROW SLOT WIRING DUCT AND COVER, 2.25"x3.12"	PANDUIT	F2X3LG6	AS REQ'D
11	NARROW SLOT WIRING DUCT AND COVER, 3.25"x3.12"	PANDUIT	F3X3LG6	AS REQ'D
12	WIDE SLOT WIRING DUCT AND COVER, 2.25"x3.12"	PANDUIT	G2X3LG6	AS REQ'D
13	WIDE SLOT WIRING DUCT AND COVER, 3.25"x3.12"	PANDUIT	G3X3LG6	AS REQ'D
14	HOT STANDBY M580 RACK - AS PER DETAIL B	SCHNEIDER		2
15	ETHERNET EXTENDED MANAGED SWITCH, RDS, 8 COPPER PORTS	SCHNEIDER	TCSESM083F23F1	2
16	PROFIBUS REMOTE MASTER	SCHNEIDER	TCSEGA23F14F	2
17	LED PANEL LIGHT AND DOOR SWITCH	HOFFMAN	IED24V15 / ALF5WD	2
18	GROUND BAR, 14 TAPS	ILSCO	D167-14	2
19	HEAD STATION TYPE 1B	PROCENTEC	101-20011B	2
20	2 CHANNEL REPEATER	PROCENTEC	101-201102	2
21	1 CHANNEL PROFIBUS PA MODULE	PROCENTEC	101-201610	7
22	6A POWER MODULE T1	PROCENTEC	101-230010	1
23	NOT USED			
24	NOT USED			
25	ELECTRONIC CIRCUIT PROTECTION CLASS 2 CIRCUITS ESX10-T (1A)	WEIDMULLER	6720005301	AS REQ'D
26	ELECTRONIC CIRCUIT PROTECTION CLASS 2 CIRCUITS ESX10-T (2A)	WEIDMULLER	6720005302	AS REQ'D
27	ELECTRONIC CIRCUIT PROTECTION CLASS 2 CIRCUITS ESX10-T (3A)	WEIDMULLER	6720005303	AS REQ'D
28	RELAY MODULE, 24VDC, 1PDT, FOR PLC INPUT	PHOENIX CONTACT	296678	3
29	RELAY MODULE SEPARATING PLATE	PHOENIX CONTACT	2966841	2
30	D-SUB CONNECTOR, 9-POS, MALE CONNECTOR, PROFIBUS DP UP TO 12Mbps WITH PG D-SUB SOCKET FOR CONNECTING A PROGRAMMING DEVICE AND TERMINATION RESISTOR	PHOENIX CONTACT		2
31	FUSED MODULAR TERMINAL BLOCK - UK10-DREHSI (6.3x32)	PHOENIX CONTACT	3005507	2
32	FEED THROUGH TERMINAL - UK 16N	PHOENIX CONTACT	3006043	2
33	FEED THROUGH TERMINAL END PLATE - UK 16	PHOENIX CONTACT	3006027	2
34	24VDC POWER SUPPLY, QUINT SERIES, 20A	PHOENIX CONTACT	2866776	6
35	ORING REDUNDANCY MODULE QUINT SERIES 2x20A	PHOENIX CONTACT	2320186	3

10	-	-
9	-	-
8	-	-
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6	-	-
5	-	-
4	-	-
3	-	-
2	-	-
1	-	-
NO.	DRAWING NUMBER	REFERENCE DRAWING TITLE
REFERENCE DRAWINGS		



B.M. ELEV.			
CONSTRUCTION COMPLETION DATE: YYYY MM DD			
1	RE-ISSUED FOR CONSTRUCTION	2022 07 05	JAB
0	ISSUED FOR CONSTRUCTION	2022 05 18	JAB
NO.	REVISIONS	DATE	BY

<b>KGS GROUP</b>			
DESIGNED BY	DG	CHECKED BY	JAB
DRAWN BY	RG	APPROVED BY	JAB
SCALE:	AS SHOWN		
DATE	2022 03 15	RELEASED FOR CONSTRUCTION	

ENGINEER'S SEAL
CONSULTANT DRAWING NUMBER
21-0107-015_A5.101

**THE CITY OF WINNIPEG**  
WATER AND WASTE DEPARTMENT  
ENGINEERING DIVISION

**Winnipeg**

NORTH END SEWAGE TREATMENT PLANT (NEWPC)  
INTERIM PHOSPHOROUS REMOVAL  
AUTOMATION

BUILDING 101  
CP-F8000 PLC CABINET LAYOUT

CITY DRAWING NUMBER **1-0101-ACB0-F200-002** SHEET **2** OF **8**