



**A** INTERIOR PANEL VIEW  
SCALE: NTS

**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. COMBRICKS POWER WIRING TO BE 14AWG.
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. COMPONENTS ARE TO BE LABELED AS SHOWN ON THE DRAWINGS.
5. ALL FUSES ARE TO BE 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. JUMPERS SHALL BE USED INSTEAD OF WIRE JUMPERS WHERE POSSIBLE.
13. PANEL MANUFACTURER TO PROVIDE ALL INTERNAL COMMUNICATION CABLES AS SHOWN ON SEGMENT AND NETWORK DIAGRAMS.

RIO-Y8000-4  
RACK: BMX XBP 0800

PS	0	1	2	3	4	5	6		
BMX CPS 3020	BME CRA 312 10	SPACE (BMX XEM 010)	SPACE (BMX XEM 010)	BMX DDI 3202K	BMX DDO 1602	BMX DDO 1602	BMX AMI 0810	SPACE (BMX XEM 010)	BMX XBE 1000

BMX FCW 303  
40-WAY CONNECTOR WITH FLYING LEADS

**C** RIO-Y8000-4 RACK CONFIGURATION  
SCALE: NTS

BILL OF MATERIALS				
TAG	DESCRIPTION	MANUFACTURER	MODEL No.	QTY
①	TYPE 4X FLOOR MOUNT ENCLOSURE 1576 mm x 1526 mm x 459 mm WITH LARGE DATA POCKET	HOFFMAN	A62H4812SSLP	1
②	ELECTRONIC CIRCUIT PROTECTION CLASS 2 CIRCUITS ESX10-T (1A)	WEIDMULLER	6720005301	AS REQ'D
③	FUSED TERMINAL - UT 4 WITH FUSE PLUG - P-FU 5X20	PHOENIX CONTACT	3046142 / 3036806	AS REQ'D
④	FEED THROUGH TERMINAL - UT 4-MTD	PHOENIX CONTACT	3046184	AS REQ'D
⑤	KNIFE DISCONNECT TERMINAL -UT 4-MT	PHOENIX CONTACT	3046139	AS REQ'D
⑥	POTENTIAL-EARTH TERMINAL - UT 4-MTD-PE-S	PHOENIX CONTACT	3046207	AS REQ'D
⑦	FEED THROUGH TERMINAL END PLATE - D-UT 2.5/4 TWIN	PHOENIX CONTACT	3047141	AS REQ'D
⑧	TERMINAL END CLAMP - CLIPFIX 35	PHOENIX CONTACT	3022218	AS REQ'D
⑨	TERMINAL BLOCK MARKER - KLM - A	PHOENIX CONTACT	1004348	AS REQ'D
⑩	DOUBLE LEVEL FUSED TERMINAL - UTB 4 WITH FUSE PLUG - P-FU 5X20	PHOENIX CONTACT	3044720 / 3036806	AS REQ'D
⑪	DOUBLE LEVEL TERMINAL END PLATE - D-UTB 2.5/4	PHOENIX CONTACT	3047293	AS REQ'D
⑫	24VDC POWER SUPPLY, QUINT SERIES, 20A	PHOENIX CONTACT	2866776	1
⑬	X80 RIO RACK - AS PER DETAIL B	SCHNEIDER		1
⑭	COMMUNICATION SWITCH	MOXA	EDS-G512E-4GSFP	1
⑮	LAMACOIDS			AS REQ'D
⑯	35mm DIN RAIL	PHOENIX CONTACT	801733	AS REQ'D
⑰	DIN RAIL INSULATED SUPPORT BRACKET	PHOENIX CONTACT	1201141	AS REQ'D
⑱	GROUND BAR, 14 TAPS	ILSCO	D167-14	3
⑲	GROUND BAR ISOLATION STAND-OFF	PANDUIT	UGB-IN-S0	2
⑳	WIDE SLOT WIRING DUCT AND COVER, 2.25"x3.12"	PANDUIT	G2X3LG6	AS REQ'D
㉑	WIDE SLOT WIRING DUCT AND COVER, 3.25"x3.12"	PANDUIT	G3X3LG6	AS REQ'D
㉒	FUSED MODULAR TERMINAL BLOCK - UK10-DREHSI (6.3x32)	PHOENIX CONTACT	3005507	AS REQ'D
㉓	FEED THROUGH TERMINAL - UK 16N	PHOENIX CONTACT	3006043	AS REQ'D
㉔	ORING REDUNDANCY MODULE QUINT SERIES 2x20A	PHOENIX CONTACT	2320186	1
㉕	UPS BATTERY	PHOENIX CONTACT	1274119	1
㉖	UPS	PHOENIX CONTACT	2907161	1
㉗	RELAY MODULE, 24VDC, 1PDT, FOR PLC INPUT	PHOENIX CONTACT	296678	1
㉘	RELAY MODULE SEPARATING PLATE	PHOENIX CONTACT	2966841	2
㉙	LED PANEL LIGHT AND DOOR SWITCH	HOFFMAN	IED24V15 / ALFSWD	2
㉚	FIBRE PATCH PANEL	CORNING	-	2

**KEYNOTE:**

- ① PROVIDE 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.
- ② CONNECT DIN RAIL TO ISOLATED GROUND BAR.

10	-	-
9	-	-
8	-	-
7	-	-
6	-	-
5	-	-
4	-	-
3	-	-
2	-	-
1	-	-
NO.	DRAWING NUMBER	REFERENCE DRAWING TITLE
REFERENCE DRAWINGS		



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

<b>KGS GROUP</b>			
DESIGNED BY	DG	CHECKED BY	JAB
DRAWN BY	RG	APPROVED BY	JAB
SCALE:	AS SHOWN		
DATE	2022 04 05	RELEASED FOR CONSTRUCTION DATE	

ENGINEER'S SEAL
CONSULTANT DRAWING NUMBER
21-0107-015_A5.410

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

**Winnipeg**

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

JUNCTION CHAMBER  
RIO-Y8000-4 CABINET LAYOUT

CITY DRAWING NUMBER **1-0101-ACBD-Y201-002**

SHEET **2** OF **8**