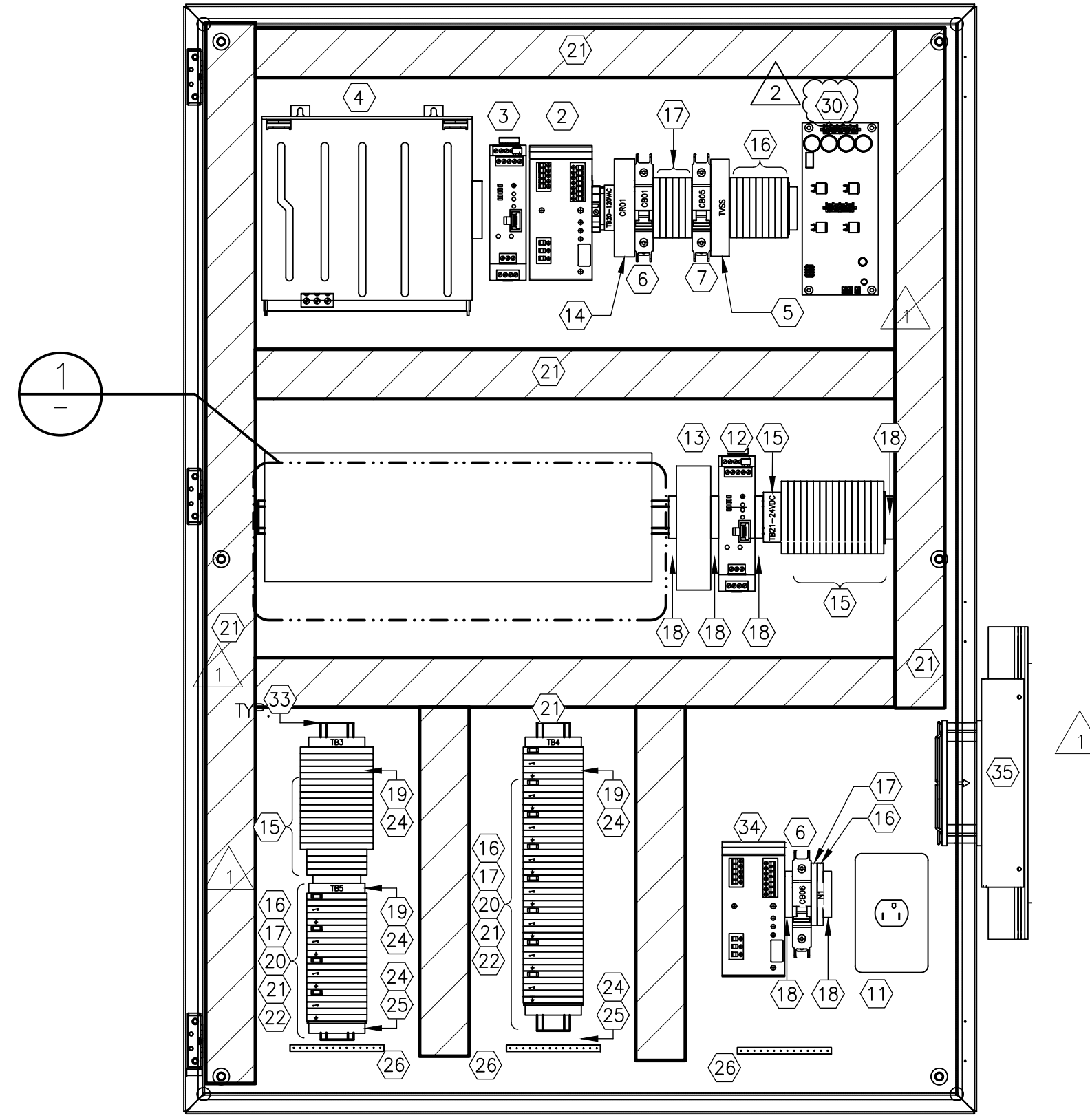


1 EXTERIOR PANEL VIEW  
SCALE: 1:5



2 INTERIOR PANEL VIEW  
SCALE: 1:5

RACK: BME XBP 0800

PS	0	1	2	3	4	5	6	7	
BMX CPS 3020		BMX P58 2040	BMX NOR 0200H	DISCRETE INPUT (BMX DDI 1602K)	ANALOG INPUT BMX AM 0810	ANALOG OUTPUT (BMX AMO 0410)	SPACE BMX XEM 010	SPACE BMX XEM 010	SPACE

A DETAIL - M580 PLC RACK CONFIGURATION  
SCALE: N.T.S.

CONNECTOR LEGEND:

- S1 BMX FTB 2010  
20 PIN REMOVABLE SCREW CLAMP TERMINAL BLOCK
- S2 BMX FCW 38S  
28-WAY REMOVABLE TERMINAL BLOCK WITH FLYING LEADS

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.
- 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.
- EXTERNAL COMPONENTS ARE TO BE LABELED AS SHOWN ON THE DRAWINGS.
- ALL FUSES ARE TO 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.
- JUMPER COMBES SHALL BE USED INSTEAD OF WIRE JUMPERS WHERE POSSIBLE.
- PANEL MANUFACTURER TO PROVIDE ALL INTERNAL COMMUNICATION CABLES AS SHOWN ON NETWORK DIAGRAMS.
- ALL EQUIPMENT SHOWN ON THIS DRAWING ARE NEW AND ARE TO BE PROVIDED AND INSTALLED BY THE CONTRACTOR UNLESS OTHERWISE INDICATED.

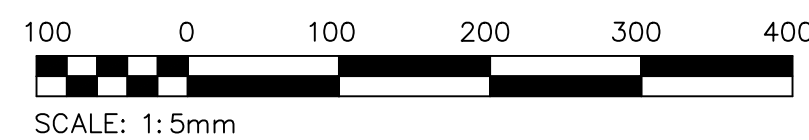
BILL OF MATERIALS

	DESCRIPTION	MANUFACTURER	MODEL No.	QTY
1	HOFFMAN ENCLOSURE TYPE 4/12 C/W BACKPAN, MOUNTING KIT AND PADLOCK HANDLE	HOFFMAN	CSD423012 W/ CP4230	1
2	POWER SUPPLY (24VDC, 10A)	PHOENIX CONTACT	2866873	1
3	UPS POWER SUPPLY (24VDC, 10A)	PHOENIX CONTACT	2320225	1
4	UPS BATTERY PACK (24VDC, 12AH)	PHOENIX CONTACT	1274119	1
5	TYPE 3 SURGE PROTECTION DEVICE, MODULE AND BASSE	PHOENIX CONTACT	2907918	1
6	10A CIRCUIT BREAKER	PHOENIX CONTACT	TMC 81B 10A	1
7	5A CIRCUIT BREAKER	PHOENIX CONTACT	TMC 81B 05A	1
8	PANEL LIGHT LED	HOFFMAN	LEDA2A35	1
9	120/240V LOAD CENTER	SCHNEIDER ELECTRIC	Q0816100DTS	1
10	PANEL HEATER 400 WATTS	HOFFMAN	DAH4001A	1
11	POWER RECEPTACLE	COOPER	817W	1
12	WIRELESS MODEM	SIERRA	RV50X	1
13	DIN RAIL MOUNTED TEMPERATURE TRANSMITTER C/W 3-WIRE TEMPERATURE SENSOR FOR PANEL TEMPERATURE	SIEMENS SITRANS TR320	TRANSMITTER P/N: 7NG0320-0JA10-0AA0 SENSOR: PT100 RTD (100mm)	1
14	RELAY AND BASE, 120VAC, SPDT W/ LED AND TEST BUTTON - POWER FAIL RELAY	OMRON	G2R-1-SNI-AC-120 (S), P2RF-05	2
15	DOUBLE LEVEL FUSED TERMINAL	PHOENIX CONTACT	3044720	A/R
16	FEED THROUGH TERMINAL BLOCK	PHOENIX CONTACT	3046184	A/R
17	FUSED TERMINAL BLOCK	PHOENIX CONTACT	3046142	A/R
18	END CLAMP	PHOENIX CONTACT	1201442	A/R
19	TERMINAL BLOCK IDENTIFIER	PHOENIX CONTACT	1004348	A/R
20	FUSED CONNECTOR	PHOENIX CONTACT	3036806	A/R
21	DISCONNECT SWITCH	PHOENIX CONTACT	3046139	A/R
22	POTENTIAL-EARTH TERMINAL	PHOENIX CONTACT	3046207	A/R
23	POTENTIAL-EARTH TERMINAL	PHOENIX CONTACT	3046207	A/R
24	TERMINAL END CLAMP - CLIPFIX	PHOENIX CONTACT	3022218	A/R
25	DOUBLE LEVEL ENDPLATE	PHOENIX CONTACT	3022218	A/R
26	GROUND BAR, 14 TAPS	ILSCO	D167-14	A/R
27	CELL ANTENNA	SIXNET	ANT-MA741AB001	1
28	CELL ANTENNA ENCLOSURE	HOOFMAN	CDS16128SS	1
29	PANEL INTRUSION SWITCH	HONEYWELL	968XTP	1
30	HOFFMAN THERMOELECTRIC COOLER CONTROL UNIT	HOFFMAN	TEC24VCNTRN	1
31	FILTER FAN W/ EXHAUST GRILLE	HOFFMAN	HF1316514 / HG1300504	1
32	RAINHOODS	HOFFMAN	RH60000N4GY	1
33	DIN RAIL	-	-	A/R
34	POWER SUPPLY 24VDC 10A	PHOENIX CONTACT	2903149	1
35	HOFFMAN THERMOELECTRIC COOLER	HOFFMAN	TE121024020	1

10		
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NO.	DRAWING NUMBER	REFERENCE DRAWING TITLE
REFERENCE DRAWINGS		

FOR TENDER ONLY  
NOT TO BE USED FOR CONSTRUCTION

ENGINEERS  
GEOSCIENTISTS  
MANITOBA  
Certificate of Authorization  
KGS Group  
No. 245



B.M. ELEV.			
CONSTRUCTION COMPLETION DATE: YYYY MM DD			
DESIGNED BY	D. GUEVARRA		
CHECKED BY	D. WILSON		
DRAWN BY	D. GUEVARRA		
APPROVED BY	D. WILSON		
SCALE:	NTS NTS		
RELEASED FOR CONSTRUCTION			
DATE	2024/03/26		
DATE			
NO.	REVISIONS		
DATE	BY		
2	ISSUED FOR ADDENDUM 4	2024 07 26	DDW
1	ISSUED FOR ADDENDUM 2	2024 07 12	DDW
0	ISSUED FOR TENDER	2024 06 20	DDW

**KGS GROUP**

ENGINEER'S SEAL

DESIGNED BY: D. GUEVARRA  
CHECKED BY: D. WILSON

DRAWN BY: D. GUEVARRA  
APPROVED BY: D. WILSON

SCALE: NTS  
NTS

RELEASED FOR CONSTRUCTION

DATE: 2024/03/26

DATE:

PLOT DATE: 2024 07 26

THE CITY OF WINNIPEG  
WATER AND WASTE DEPARTMENT  
ENGINEERING DIVISION

CONSTRUCTION OF A NEW WASTEWATER LIFT STATION - CENTREPORT SOUTH REGIONAL WATER AND WASTEWATER SERVICING PHASE 1A (CONTRACT 1A) AUTOMATION

OFTAKE STRUCTURE 3  
PANEL LAYOUT, BILL OF MATERIALS & PLC CONTROL PANEL CP-F81

CONSULTANT DRAWING NUMBER: 23-0107-009\_A43.2  
CITY DRAWING NUMBER: 1-0241L-A0043-002

SHEET 2 OF 2