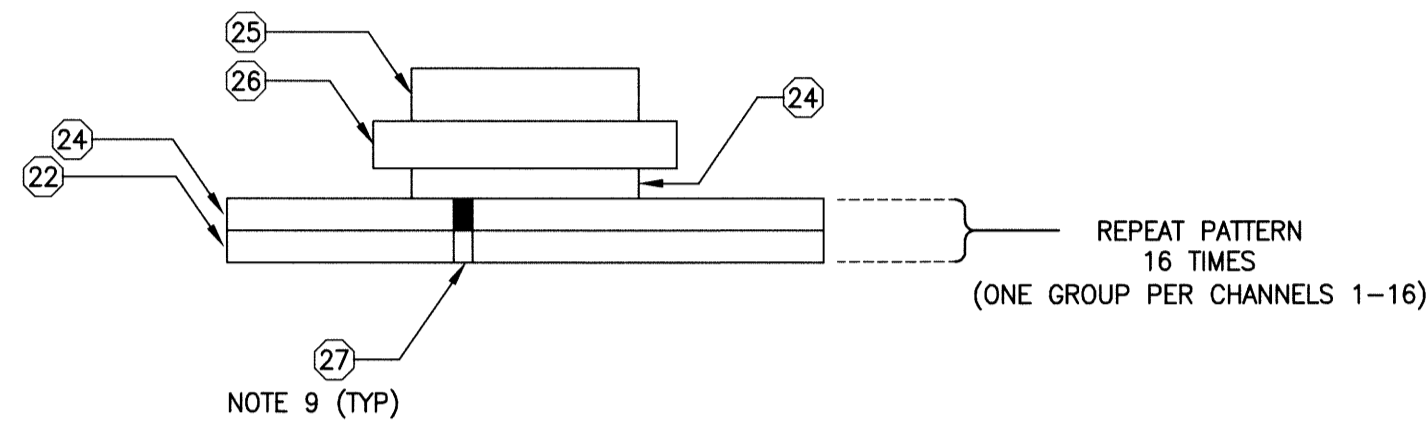
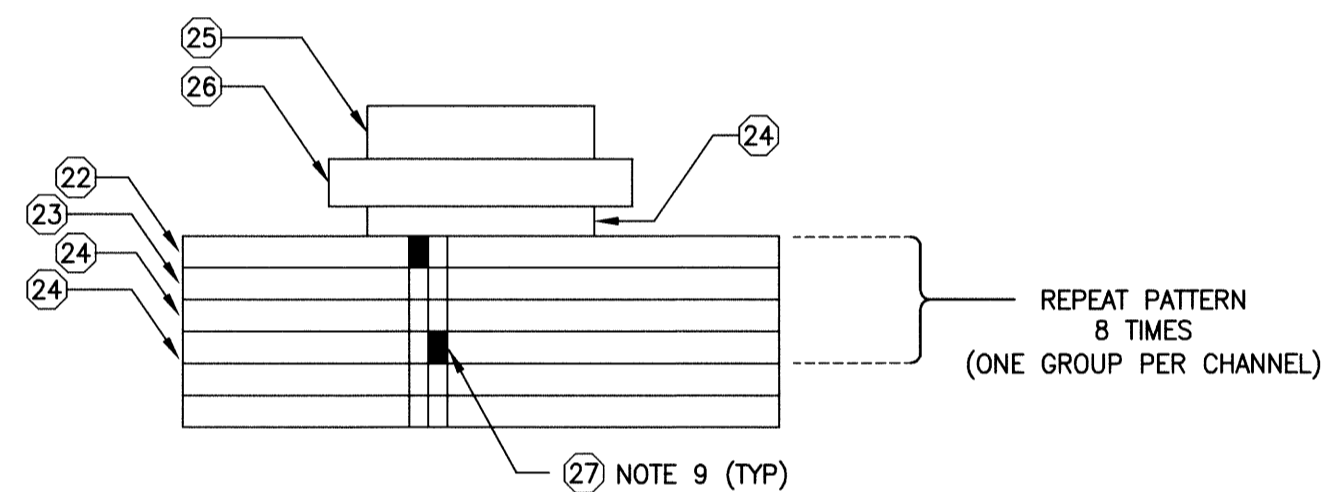


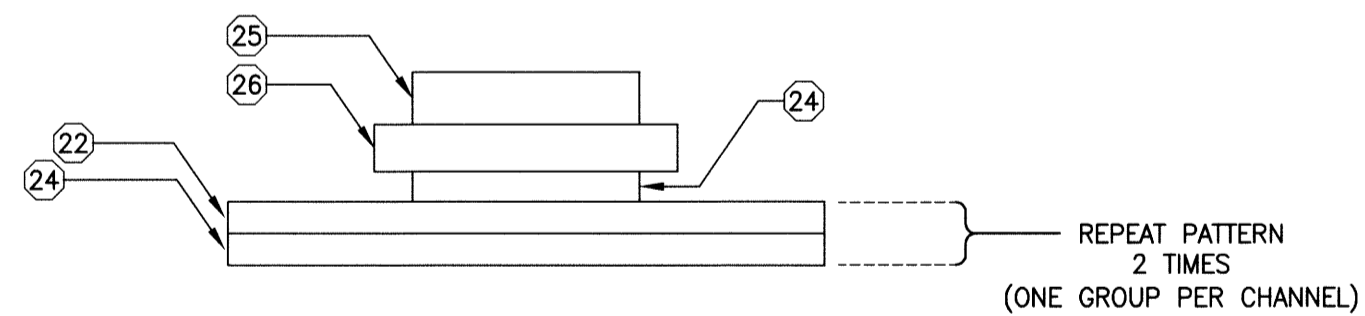
**2**  
40.1  
**DISCRETE INPUT**  
**TERMINAL STRIP ARRANGEMENT**  
SCALE: N.T.S.



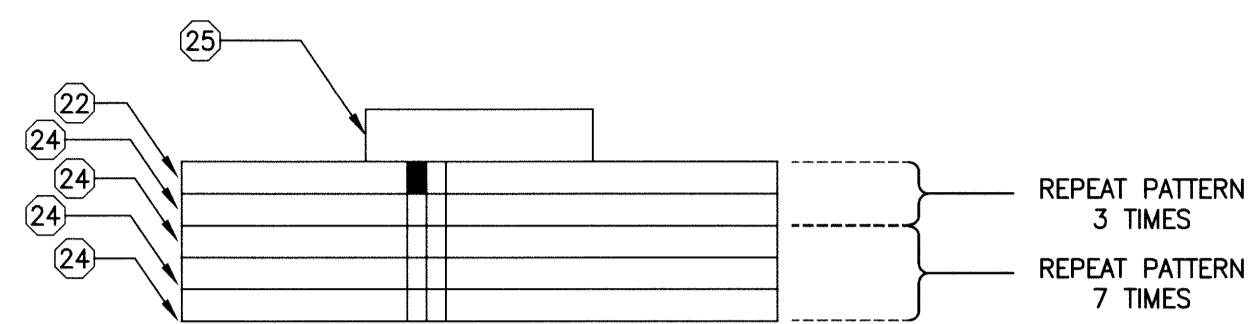
**3**  
40.1  
**DISCRETE OUTPUT**  
**TERMINAL STRIP ARRANGEMENT**  
SCALE: N.T.S.



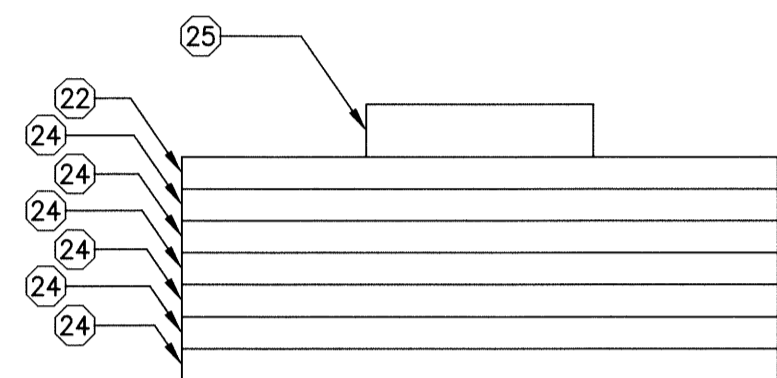
**4**  
40.1  
**ANALOG INPUT**  
**TERMINAL STRIP ARRANGEMENT**  
SCALE: N.T.S.



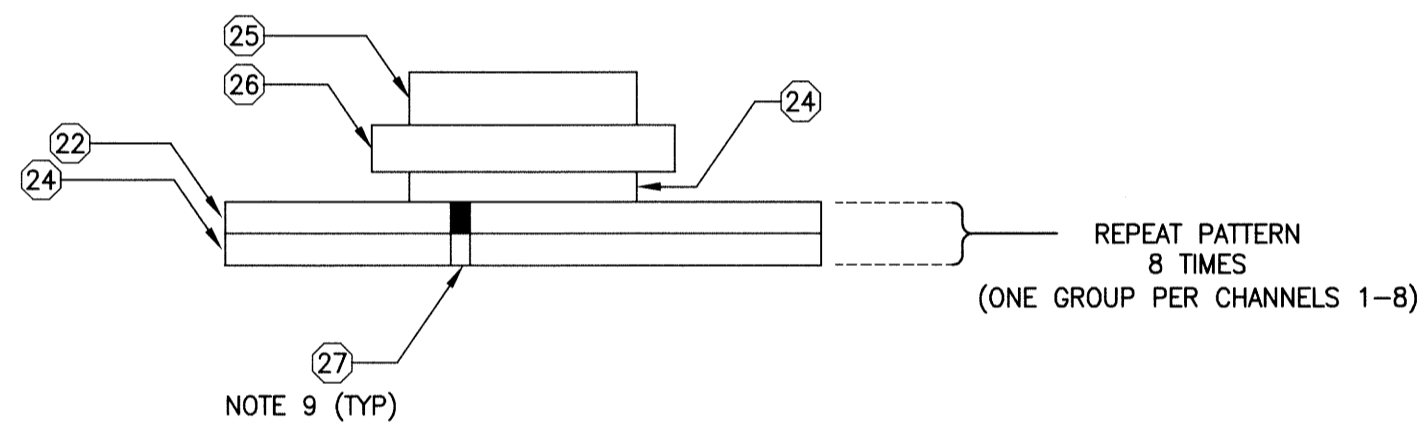
**5**  
40.1  
**ANALOG OUTPUT**  
**TERMINAL STRIP ARRANGEMENT**  
SCALE: N.T.S.



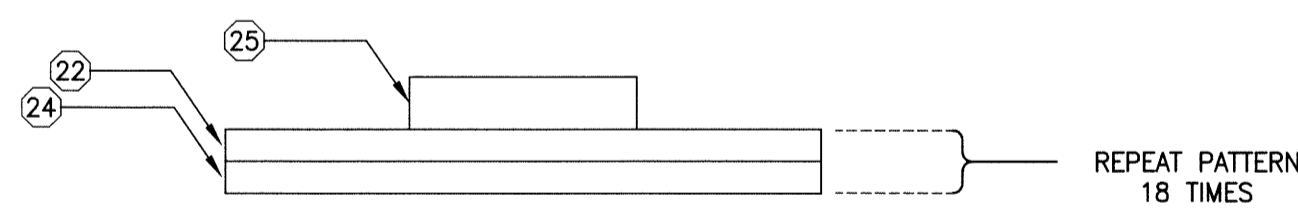
**6**  
40.1  
**LEVEL CONTROLLER 24VDC**  
**TERMINAL STRIP ARRANGEMENT**  
SCALE: N.T.S.



**7**  
40.1  
**TERMINAL STRIP ARRANGEMENT**  
SCALE: N.T.S.



**8**  
40.1  
**DISCRETE INPUT**  
**TERMINAL STRIP ARRANGEMENT**  
SCALE: N.T.S.



**9**  
40.1  
**24VDC POWER**  
**TERMINAL STRIP ARRANGEMENT**  
SCALE: N.T.S.

TAG	DESCRIPTION	MANUFACTURER	MODEL No.	QTY	COMMENTS
(4)	TD2 TIMING RELAY	PHOENIX CONTACT	ETD-BL-1T-OFF-CC-10S	1	
(40)	TD1 TIMING RELAY	PHOENIX CONTACT	ETD-BL-1T-ON-10S	1	
(39)	RTU PUSHBUTTON	ALLEN BRADLEY	800H-AR7D1	1	
(38)	LOCAL PUSHBUTTON	ALLEN BRADLEY	800H-AR9D2	1	
(37)	RESET PUSHBUTTON	ALLEN BRADLEY	800H-AR6D1	1	
(36)	RTU LED LIGHT	ALLEN BRADLEY	800H-QRTH2B	1	
(35)	LOCAL LED LIGHT	ALLEN BRADLEY	800H-QRTH2A	1	
(34)	FAIL TO LOCAL LED LIGHT	ALLEN BRADLEY	800H-QRTH2R	1	
(33)	ALARM INHIBIT/NORMAL SELECTOR SWITCH	ALLEN BRADLEY	800H-HP2KB6AXXX	1	
(32)	UPS BATTERY	PHOENIX CONTACT	QUINT-BAT/24DC/3.4AH	1	
(31)	MULTI RANGER 100/200	SIEMENS		1	
(30)	MINI MOORE MIT	MOORE IND.		1	
(29)	RELAY SPDT	PHOENIX CONTACT	PLC-RSC-24DC/21	3	
(28)	PANEL	HOFFMAN	A72P48F1	1	
(27)	TERMINAL BLOCK PLUG IN CROSS CONNECTION COMB			A/R	SEE NOTE 9
(26)	24VDC DIN RAIL MOUNTED CIRCUIT BREAKER 5A			7	
(25)	TERMINAL BLOCK MARKER			A/R	
(24)	STRAIGHT THROUGH TERMINAL BLOCK			A/R	SEE NOTE 9
(23)	DISCONNECT TERMINAL BLOCK			A/R	SEE NOTE 9
(22)	FUSED TERMINAL /W BLOWN FUSE INDICATION - 24VDC			A/R	SEE NOTE 9
(21)	OPERATOR TERMINAL			A/R	SEE NOTE 11
(20)	708TX 8 PORT MANAGED ETHERNET SWITCH	N-TRON	708TX	1	
(19)	RELAY DPDT	PHOENIX CONTACT	PLC-RSC-24DC/21-21	3	
(18)	3" x 3" PANDUIT	PANDUIT		A/R	
(17)	4" x 4" PANDUIT	PANDUIT		A/R	
(16)	STEEL WINDOW KITS SUITABLE FOR NEMA 4 ENCLOSURE (NOT SHOWN)	HOFFMAN		A/R	SEE NOTE 4
(15)	1500 VA ON-LINE UPS; 120 V (NOT SHOWN)			1	LIBERT GTX3; APC SMART-UPS RT OR EQUIVALENT
(14)	WIRELESS MODEM C/W SIM CARD WITH MTS ACCOUNT AND EXTERNAL ANTENNA	SIXNET	BT-6801 HSPA	1	
(13)	LANDLINE MODEM (PART No. 2708203)	PHOENIX CONTACT	PS-0A0/FAX-M009M/R5232	1	
(12)	"12.1" TOUCHSCREEN HMI"	SCHNEIDER ELECTRIC	MAGELIS XBTGT6330	1	
(10)	SCADAPACK 357 RTU	SCHNEIDER ELECTRIC	SCADAPACK 357E	1	
(9)	24VDC POWER SUPPLY / UPS	PHOENIX CONTACT	TR0-UPS/1AC/24DC/5	1	
(8)	DIN RAIL			A/R	
(7)	GROUND BAR			2	
(6)	TERMINAL BLOCKS AND ACCESSORIES			A/R	SEE NOTES 1, 3 & 9
(5)	120VAC; 15A CONVENIENCE RECEPTACLE MOUNTED INSIDE PANEL			1	SEE NOTE 10
(4)	FOLDING UTILITY SHELF	HOFFMAN		1	SEE NOTE 6
(3)	DRAWING HOLDER	HOFFMAN		1	SEE NOTE 7
(2)	FLUORESCENT FIXTURE & DOOR LIMIT SWITCH	HOFFMAN		1	SEE NOTE 8
(1)	TWO DOOR WALL/STRUT MOUNTED NEMA 4 ENCLOSURE	HOFFMAN	A724818SSFS0N4	1	SEE NOTES 2, 4 & 5

**BILL OF MATERIALS**

**NOTES:**

- MOUNT TERMINAL BLOCKS TO PRESENT FIELD SIDE WIRING UPWARD AT 45° ANGLE.
- PROVIDE NAMEPLATE 'RTU PANEL' TO FRONT DOOR.
- ORIENT LOAD SIDE OF DISCONNECT TYPE INDICATING FUSE TERMINAL BLOCKS TOWARDS FIELD WIRING.
- MOUNT WINDOW KITS ON DOORS TO ALIGN WITH VIEWING RTU MODULE.
- ENCLOSURE SIZE SHALL BE 72" H X 48" W X 18" D WITH TWO DOORS.
- PROVIDE FOLDING UTILITY SHELF ON DOOR (SAME SIDE AS RECEPTACLE) TO ALLOW LAPTOP COMPUTER.
- PROVIDE POCKET INSIDE DOOR FOR STORING RELEVANT DRAWINGS.
- FLUORESCENT FIXTURE TO BE CONTROLLED FROM DOOR ACTIVATED LIMIT SWITCH.
- TERMINAL BLOCKS TO BE 4MM<sup>2</sup> SCREW TERMINAL WITH 3 PLUG-IN CROSS CONNECTION CHANNELS. DESIGN ASSUMES TERMINAL BLOCK WIDTH OF 6.1MM BUT ACCOUNTS FOR WIDER TERMINAL BLOCK DESIGNS BY PROVIDING ADDITIONAL DIN RAIL SPACE SHOULD WIDER TERMINAL BLOCKS BE DESIRED. SHADING DENOTES COMB CONNECTIONS. (TYP.)
- DEDICATED 120VAC CONVENIENCE RECEPTACLE FOR LAPTOP WHILE PROGRAMMING RTU. TO BE LABELED "LAPTOP ONLY". NOT INTENDED TO BE USED FOR UTILITY PURPOSES.
- PANELVIEW PLUS 6 7" LCD OPERATOR TERMINAL TO BE MOUNTED ON THE RIGHT DOOR SO THAT THE DISPLAY IS VISIBLE WHILE THE DOOR IS CLOSED. IT IS TO BE CENTERED HORIZONTALLY ON THE RIGHT DOOR AND MOUNTED AT AN ELEVATION OF 5' ABOVE THE FLOOR.



NO.	REVISIONS	DATE	BY
0	ISSUED FOR CONSTRUCTION	14/08/18	AP

DESIGNED BY	DDW/MAM	CHECKED BY	
DRAWN BY	GCN	APPROVED BY	
HOR. SCALE	N.T.S.	RELEASED FOR CONSTRUCTION	
VERTICAL	N.T.S.		
DATE	2014 04 04	DATE	

ENGINEER'S SEAL

A-E40.2

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

FLOOD PUMPING STATION UPGRADES  
ASSINIBOINE STATION  
**ELECTRICAL**  
RTU PANEL ENCLOSURE  
120VAC POWER AND FUSE DISTRIBUTION

SHEET 2 OF 2  
CITY DRAWING NUMBER  
1-0115F-E0019-002