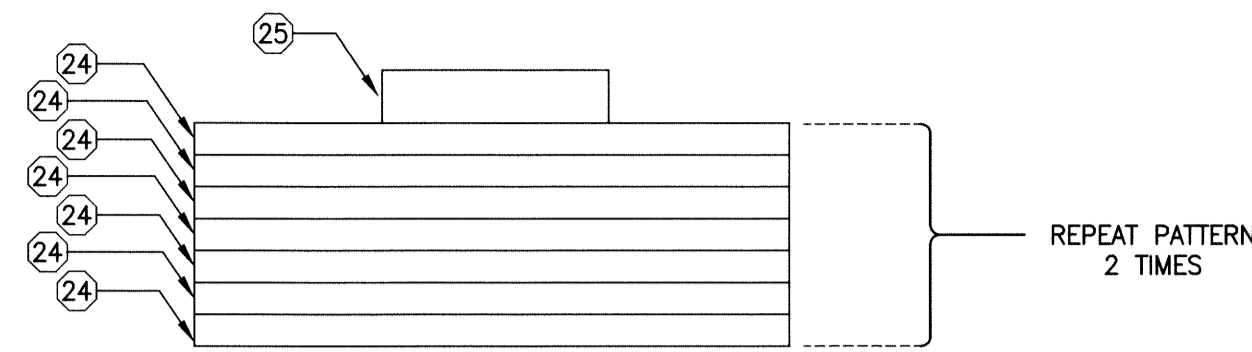
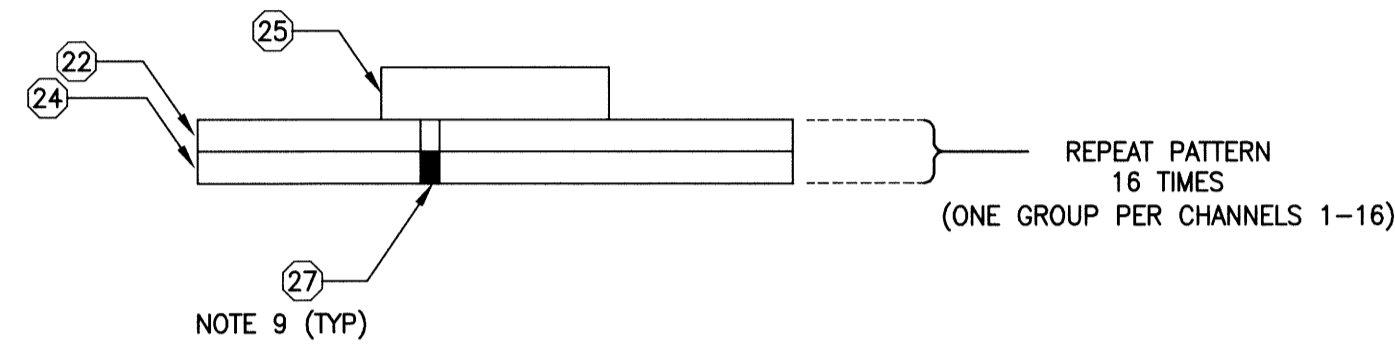


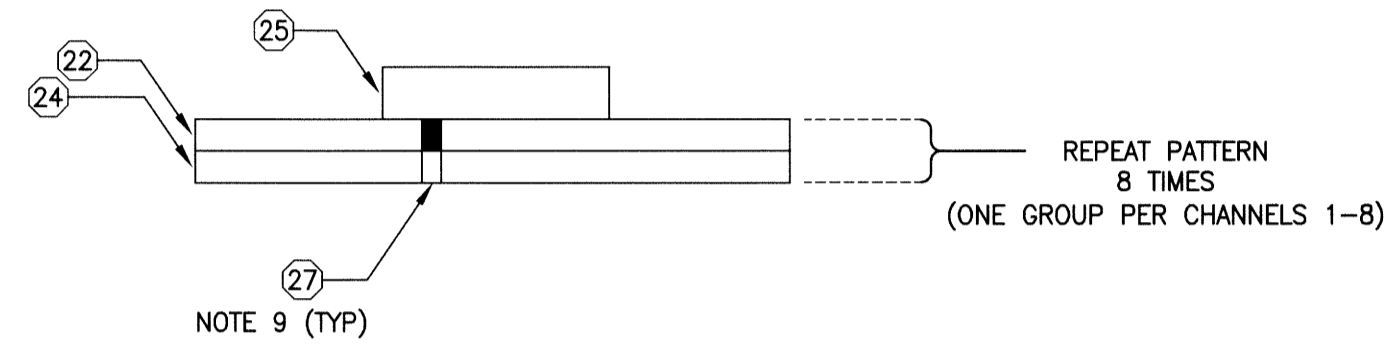
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**DISCRETE INPUT
TERMINAL STRIP ARRANGEMENT**
SCALE: N.T.S.



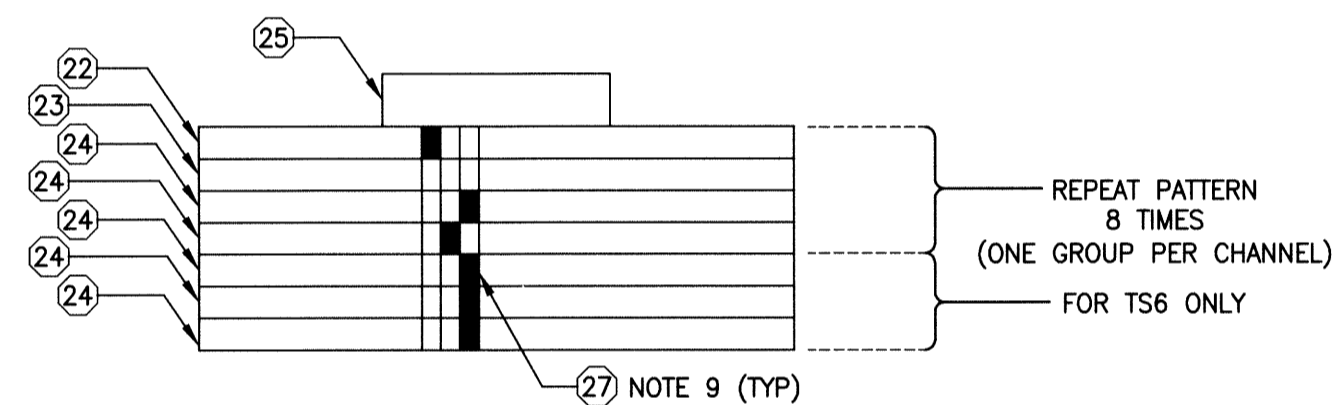
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SCALE: N.T.S.



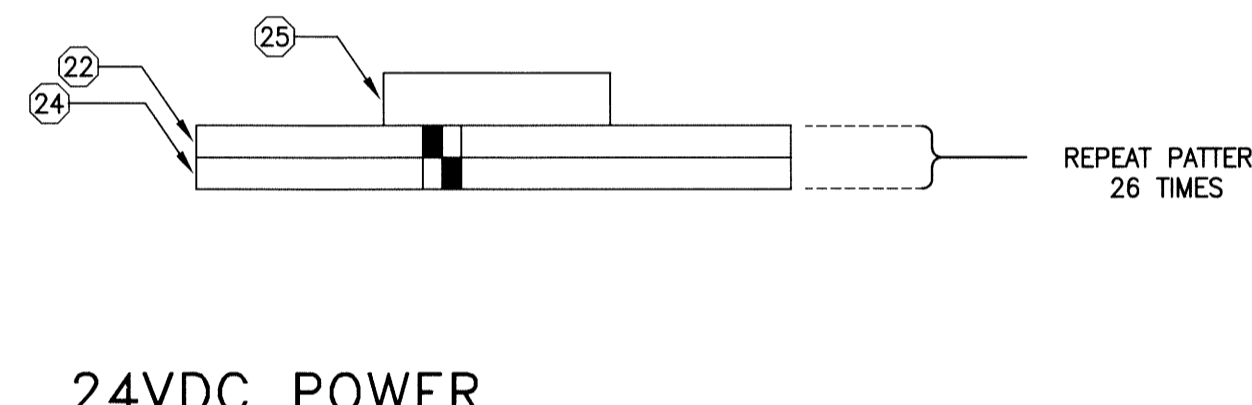
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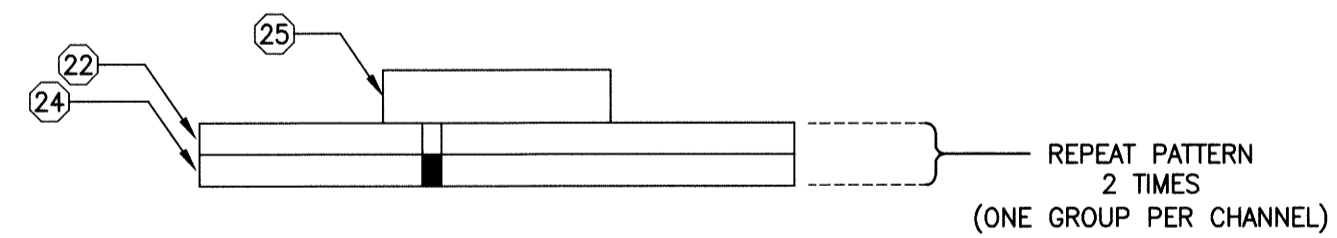
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**DISCRETE INPUT
TERMINAL STRIP ARRANGEMENT**
SCALE: N.T.S.



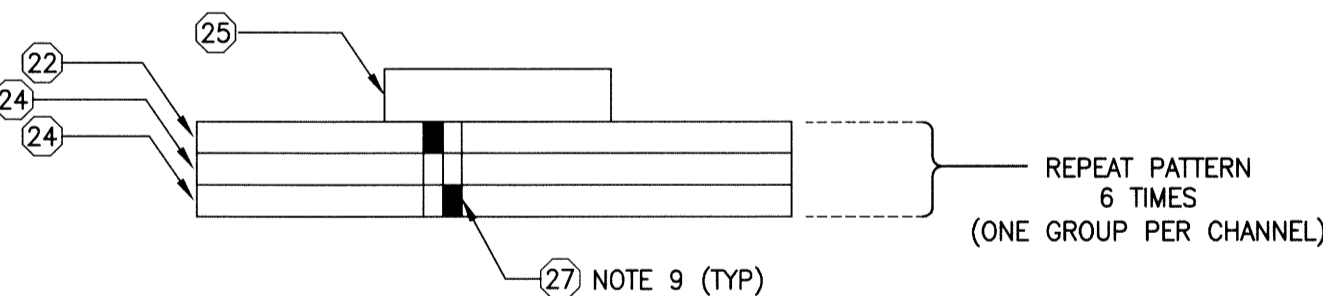
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**ANALOG INPUT
TERMINAL STRIP ARRANGEMENT**
SCALE: N.T.S.



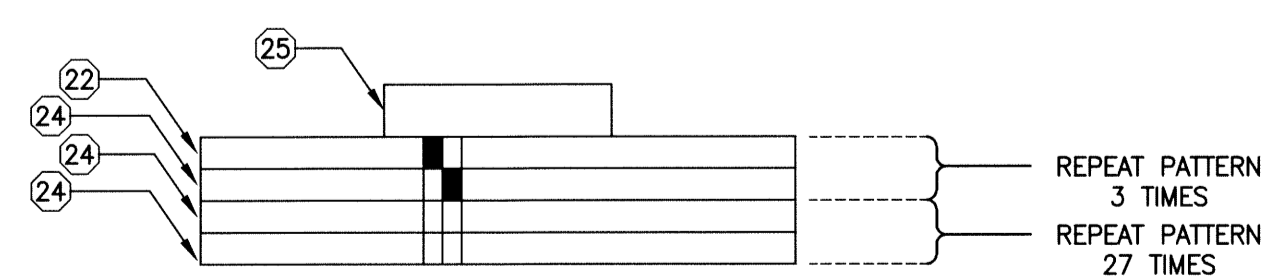
9
40.1
**24VDC POWER
TERMINAL STRIP ARRANGEMENT**
SCALE: N.T.S.



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



10
40.1
**ANALOG INPUT
TERMINAL STRIP ARRANGEMENT**
SCALE: N.T.S.



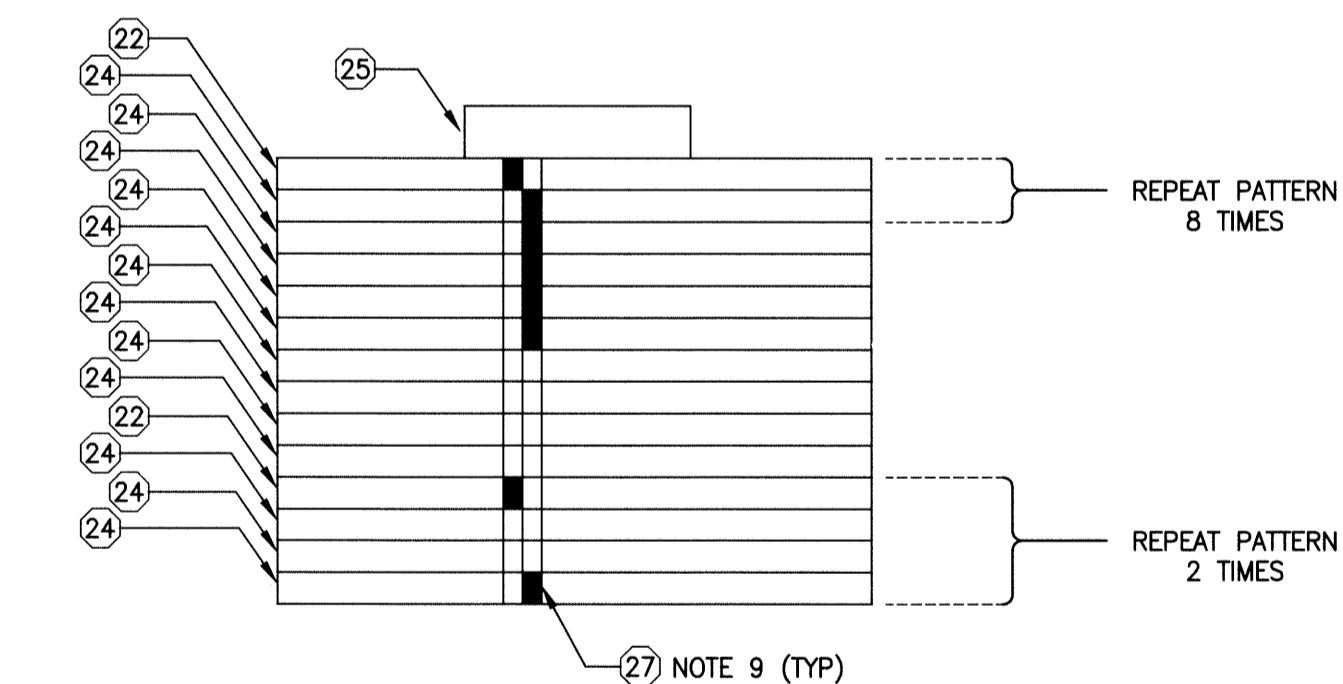
6
40.1
**LEVEL CONTROLLER 24VDC
TERMINAL STRIP ARRANGEMENT**
SCALE: N.T.S.

TAG	DESCRIPTION	MANUFACTURER	MODEL No.	QTY	COMMENTS
(44)	LEVEL CONTROLLER	PRECISION DIGITAL	PD6000	1	
(43)	MINIMOORE MIX 4 CHANNEL	MOORE IND.	MIX/4X4-20mA/4X4-20mA/12-42DC(DIN)	1	
(42)	MINIMOORE MIX 2 CHANNEL	MOORE IND.	MIX/2XPRG/2X4-20mA/12-42DC(DIN)	1	
(41)	TD2 AND TD4 TIMING RELAY	PHOENIX CONTACT	ETD-BL-1T-OFF-CC-10S	2	
(40)	TD1 AND TD3 TIMING RELAY	PHOENIX CONTACT	ETD-BL-1T-ON-10S	2	
(39)	RTU PUSHBUTTON	ALLEN BRADLEY	800H-AR7D1	2	
(38)	LOCAL PUSHBUTTON	ALLEN BRADLEY	800H-AR9D2	2	
(37)	RESET PUSHBUTTON	ALLEN BRADLEY	800H-AR6D1	2	
(36)	RTU LED LIGHT	ALLEN BRADLEY	800H-QRTH2B	2	
(35)	LOCAL LED LIGHT	ALLEN BRADLEY	800H-QRTH2A	2	
(34)	FAIL TO LOCAL LED LIGHT	ALLEN BRADLEY	800H-QRTH2R	2	
(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)	MINIMOORE MIT	MOORE IND.	MIT/2XPRG/2X4-20mA/U (DIN)	3	
(29)	RELAY SPDT	PHOENIX CONTACT	PLC-RSC-24DC/21	10	
(28)	PANEL	HOFFMAN	A72P4BF1	1	
(27)	TERMINAL BLOCK PLUG IN CROSS CONNECTION COMB			A/R	SEE NOT 9
(26)	120VAC SPDT RELAY	PHOENIX CONTACT	PLC-RSC-120UC/21	1	
(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)	SURGE PROTECTION DEVICE	TPS	TK-LT120-15A-DIN2	1	
(20)	708TX 8 PORT MANAGED ETHERNET SWITCH	N-TRON	708TX	1	
(19)	RELAY DPDT	PHOENIX CONTACT	PLC-RSC-24DC/21-21	6	
(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	HOFFMAN		A/R	SEE NOTE 4
(15)	4 PDT RELAY	PHOENIX CONTACT	PR2-RSC3-LV-120AC/4X21AU	1	
(14)	WIRELESS MODEM C/W SIM CARD WITH MTS ACCOUNT AND EXTERNAL ANTENNA	SIXNET	BT-6621 MTS	1	
(13)	LANDLINE MODEM (PART No. 2708203)	PHOENIX CONTACT	PSI-DATA/FAX-MODEM/RS232	1	
(12)	12.1" TOUCHSCREEN HMI	SCHNEIDER ELECTRIC	MAGELIS XBTGT6330	1	SEE NOTE 11
(11)	SCADAPACK I/O 5606 EXPANSION MODULE	SCHNEIDER ELECTRIC	SCADAPACK 5606	1	
(10)	SCADA PACK 357 RTU	SCHNEIDER ELECTRIC	SCADAPACK 357E	1	
(9)	24VDC POWER SUPPLY / UPS	PHOENIX CONTACT	TRIO-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 (NOT SHOWN)	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	A724818SSFSDN4	1	SEE NOTES 2, 4 & 5

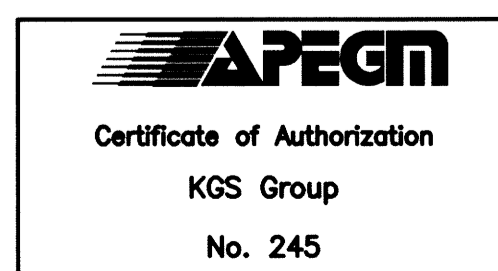
BILL OF MATERIALS

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 4MM² 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 RTV. TO BE LABELED 'LAPTOP ONLY'. NOT INTENDED TO BE USED FOR UTILITY PURPOSES.
- TOUCHSCREEN HMI TO BE MOUNTED ON THE LEFT DOOR SO THAT THE DISPLAY IS VISIBLE WHILE THE DOOR IS CLOSED. IT IS TO BE CENTERED HORIZONTALLY ON THE LEFT DOOR AND MOUNTED AT AN ELEVATION OF 5' ABOVE THE FLOOR.



11
40.1
**PUMP CONTROLS
TERMINAL STRIP ARRANGEMENT**
SCALE: N.T.S.



NO.	REVISIONS	DATE	BY
0	ISSUED FOR CONSTRUCTION	14/12/15	AP

DESIGNED BY	DDW	CHECKED BY	[Signature]
DRAWN BY	GCN	APPROVED BY	[Signature]
HDR. SCALE	N.T.S.	RELEASED FOR CONSTRUCTION	
VERTICAL	N.T.S.	DATE	2014 04 04

ENGINEER'S SEAL

 D-E40.2

THE CITY OF WINNIPEG
 WATER AND WASTE DEPARTMENT
 FLOOD PUMPING STATION UPGRADES
 DUMOULIN STATION
ELECTRICAL
 RTU PANEL ENCLOSURE
 120VAC POWER AND FUSE DISTRIBUTION

SHEET 2 OF 2
 CITY DRAWING NUMBER
 1-0139F-E0005-002