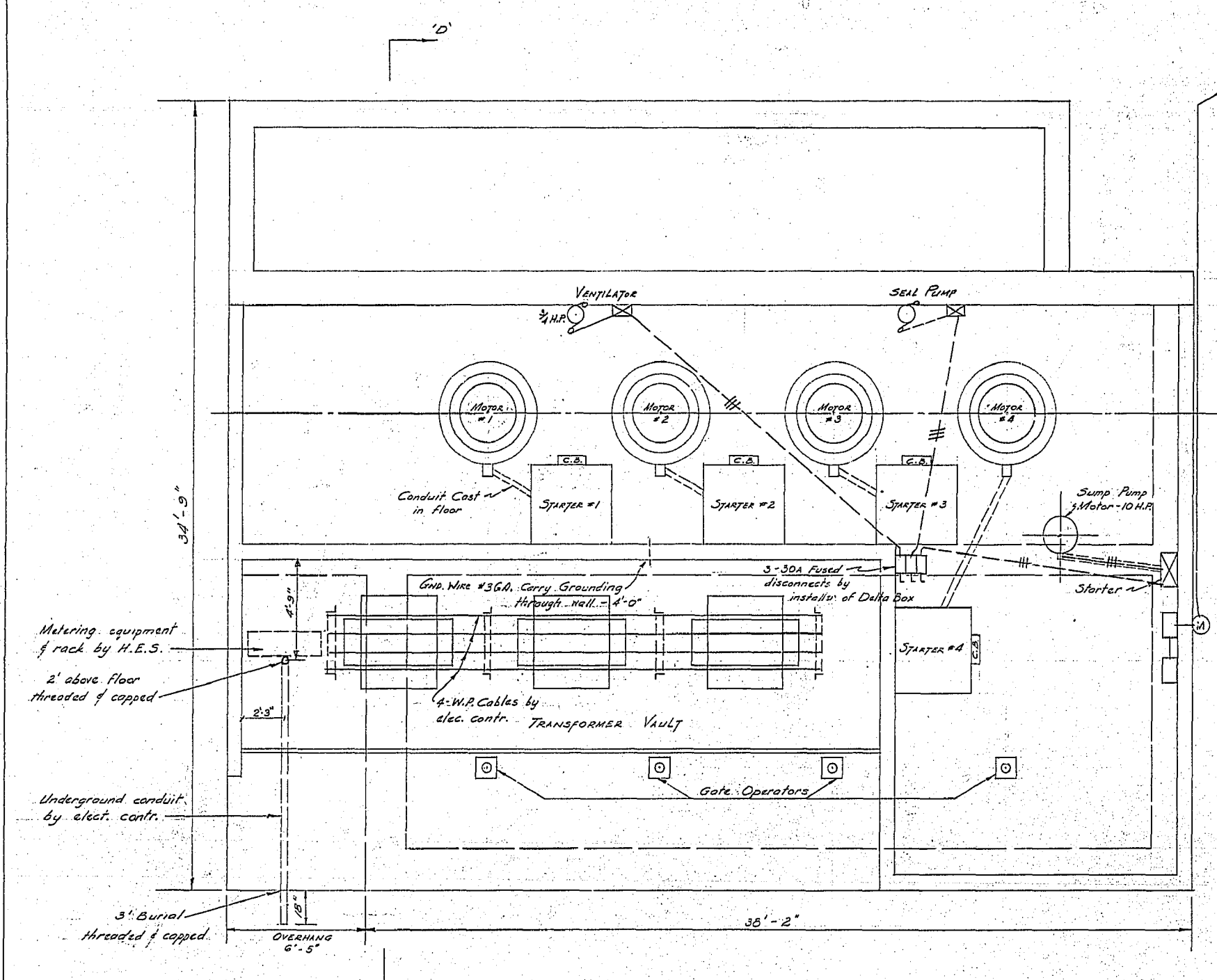
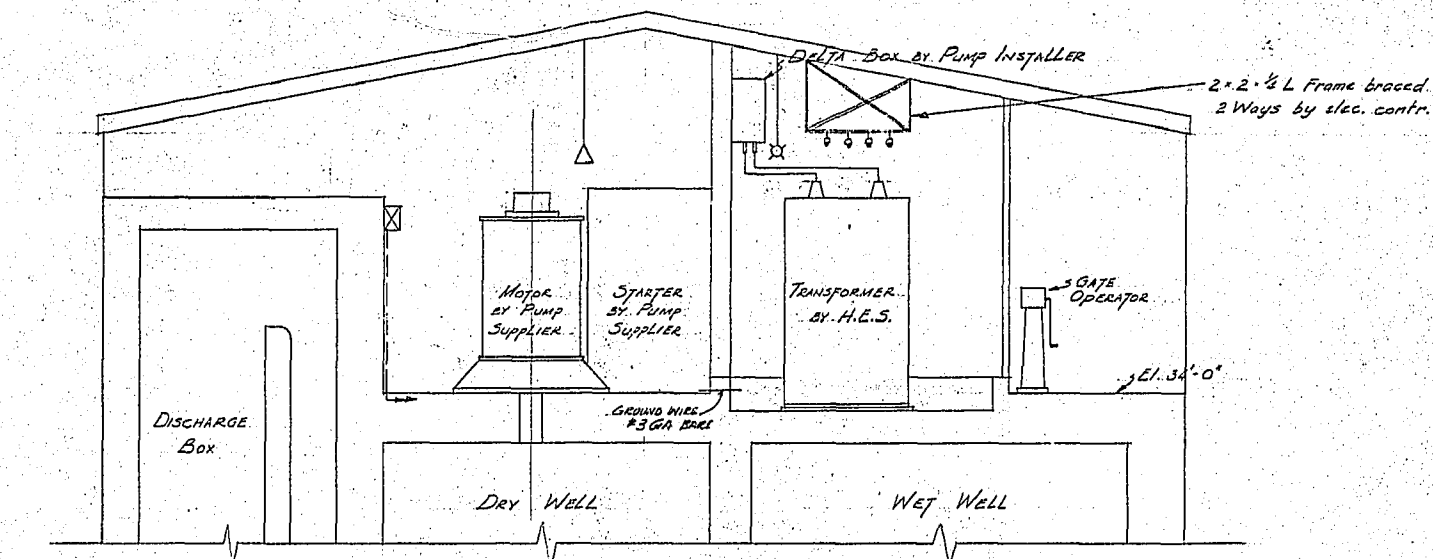


APPENDIX A – CITY OF WINNIPEG CLIFTON FLOOD PUMPING AND WASTEWATER LIFT STATION HISTORICAL RECORD DRAWINGS

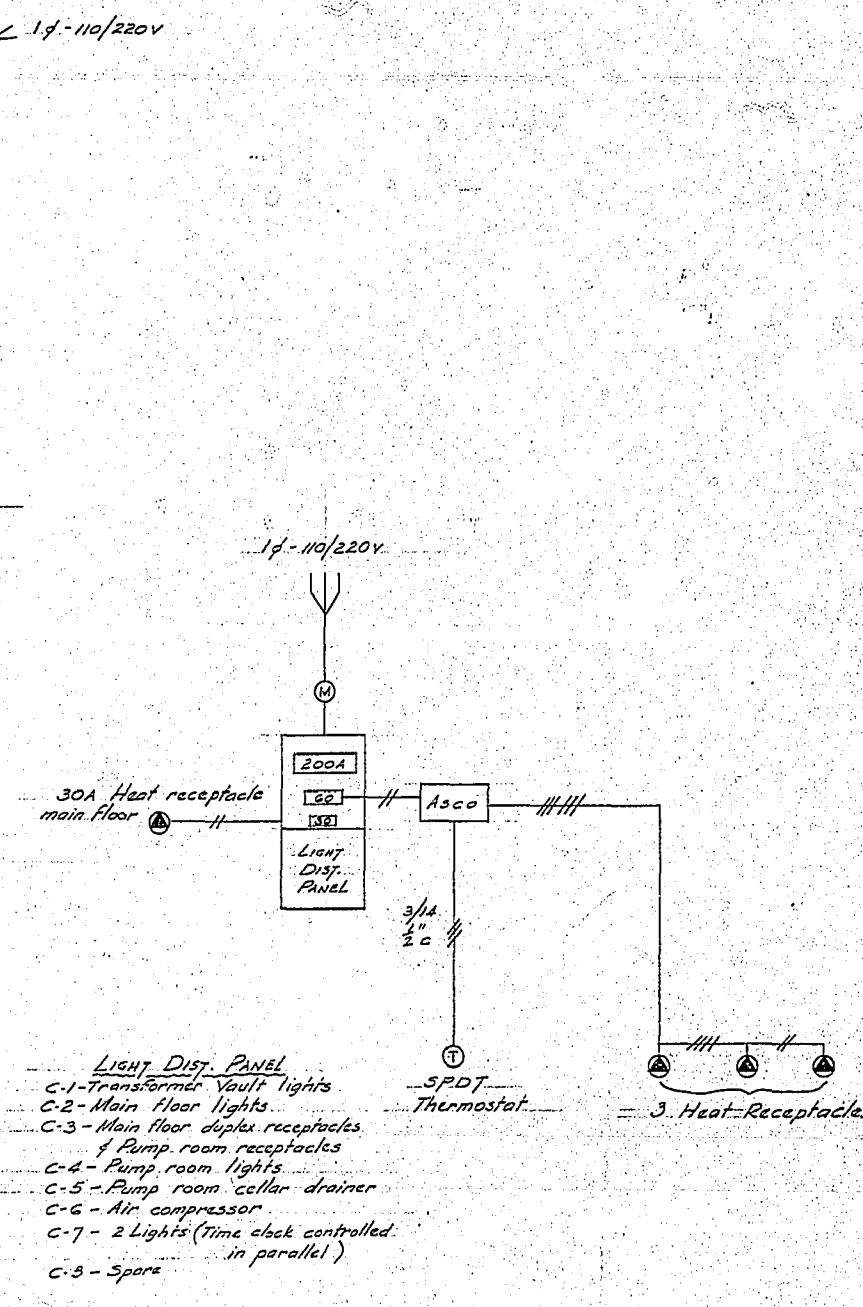


3/4 - 550V WIRING
Motor Floor Plan
Scale 1/4" = 1'-0"

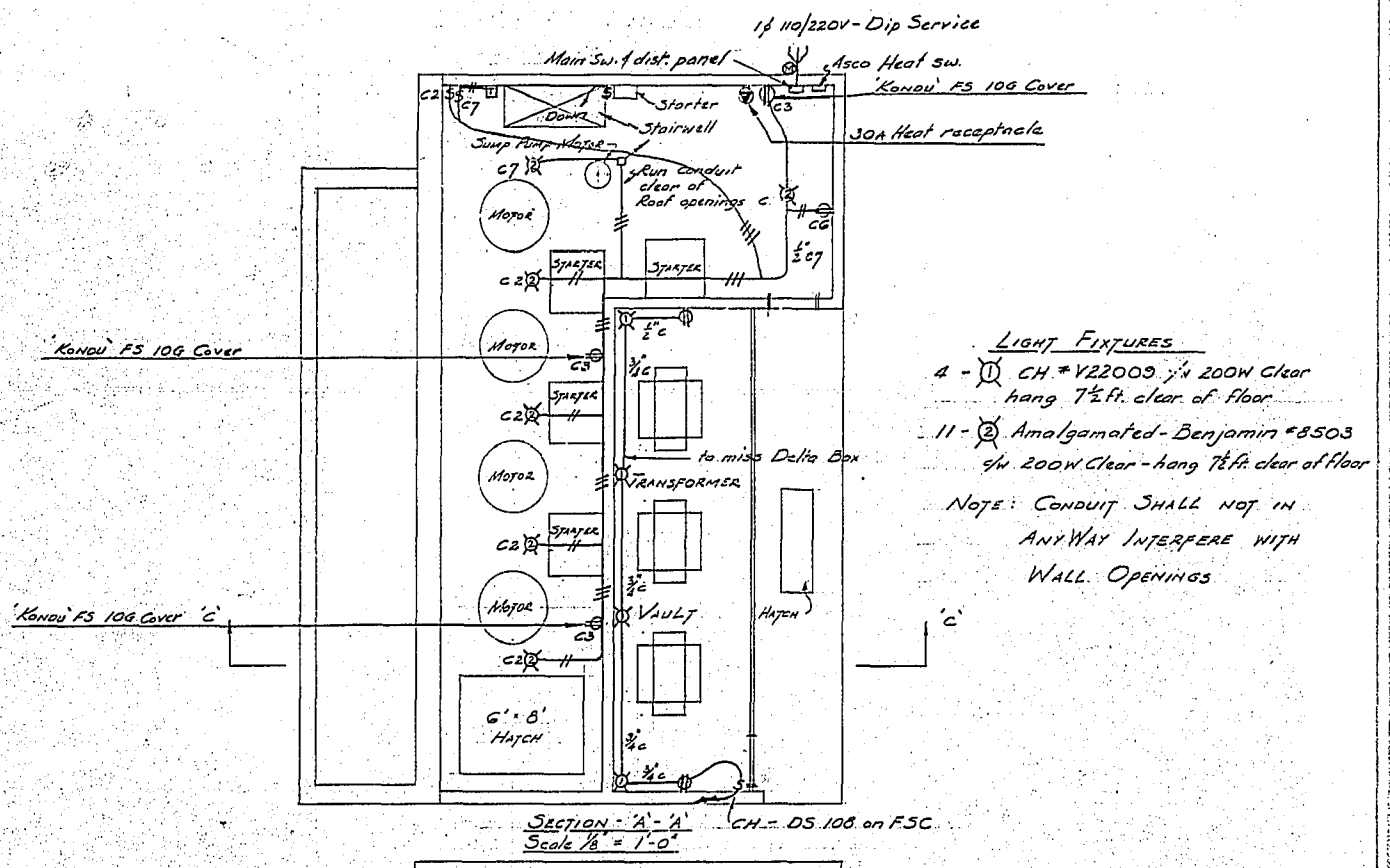
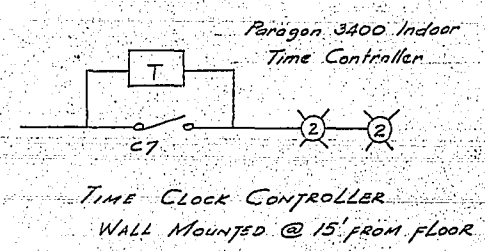
ERECTION NOTE:
Overhead conduit runs shall not interfere with roof openings required to lift out pumps & motors run conduit clear of these areas



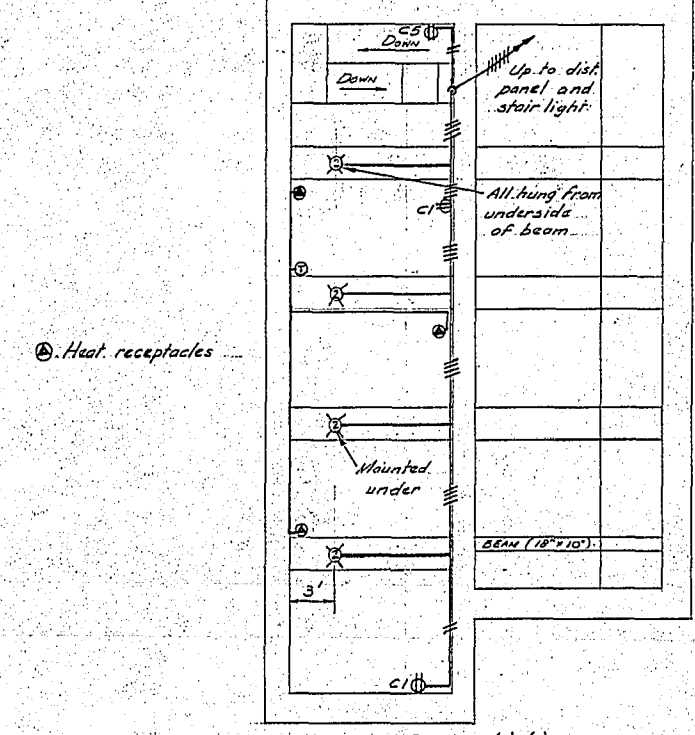
SECTION D-D
Scale 1/4" = 1'-0"



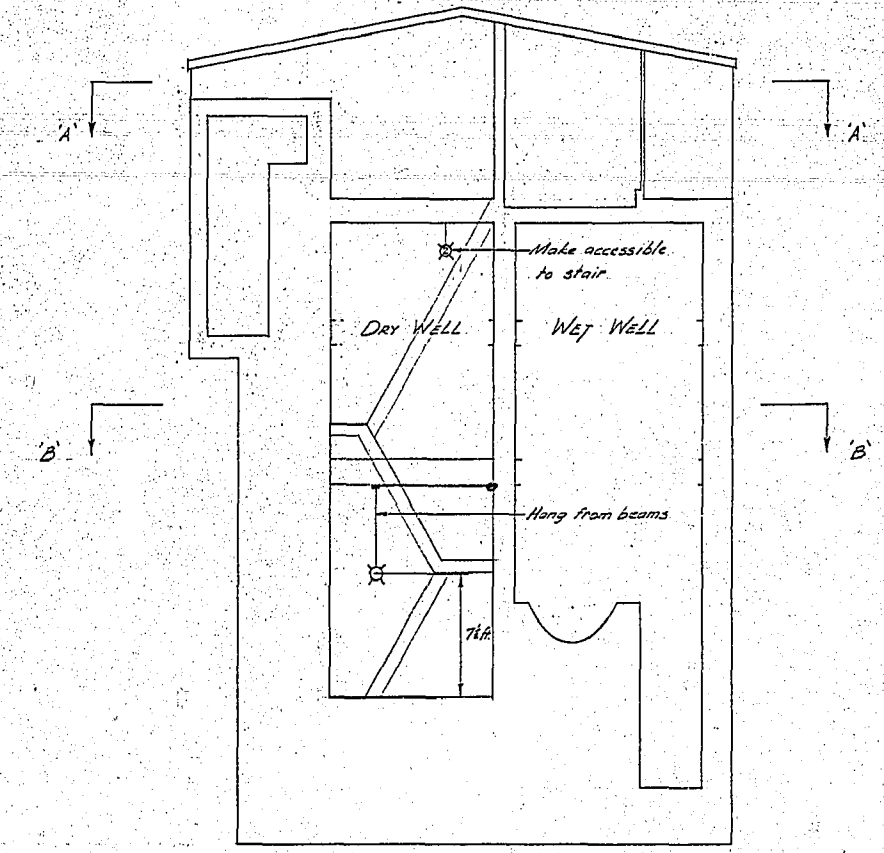
- LIGHT DIST. PANEL**
- C-1 - Transformer Vault lights
 - C-2 - Main floor lights
 - C-3 - Main floor duplex receptacles of Pump room receptacles
 - C-4 - Pump room lights
 - C-5 - Pump room cellar drainer
 - C-6 - Air compressor
 - C-7 - 2 Lights (time clock controlled in parallel)
 - C-8 - Spare



SECTION A-A
Scale 1/8" = 1'-0"



SECTION B-B
Scale 1/8" = 1'-0"



SECTION C-C
Scale 1/8" = 1'-0"

CLIFTON STREET FLOOD PUMPING STATION
ELECTRICAL

CITY OF WINNIPEG ENGINEERING DEPARTMENT W. D. HURST, CITY ENGINEER J. B. STROWSKI, DEPUTY CITY ENGINEER	DRAWN BY I.C. DATE 13-12-60	SCALE As SHOWN
	TRACED BY [Signature]	DRAWING NO.
	CHECKED BY [Signature]	R-228-K
	APPROVED BY [Signature]	

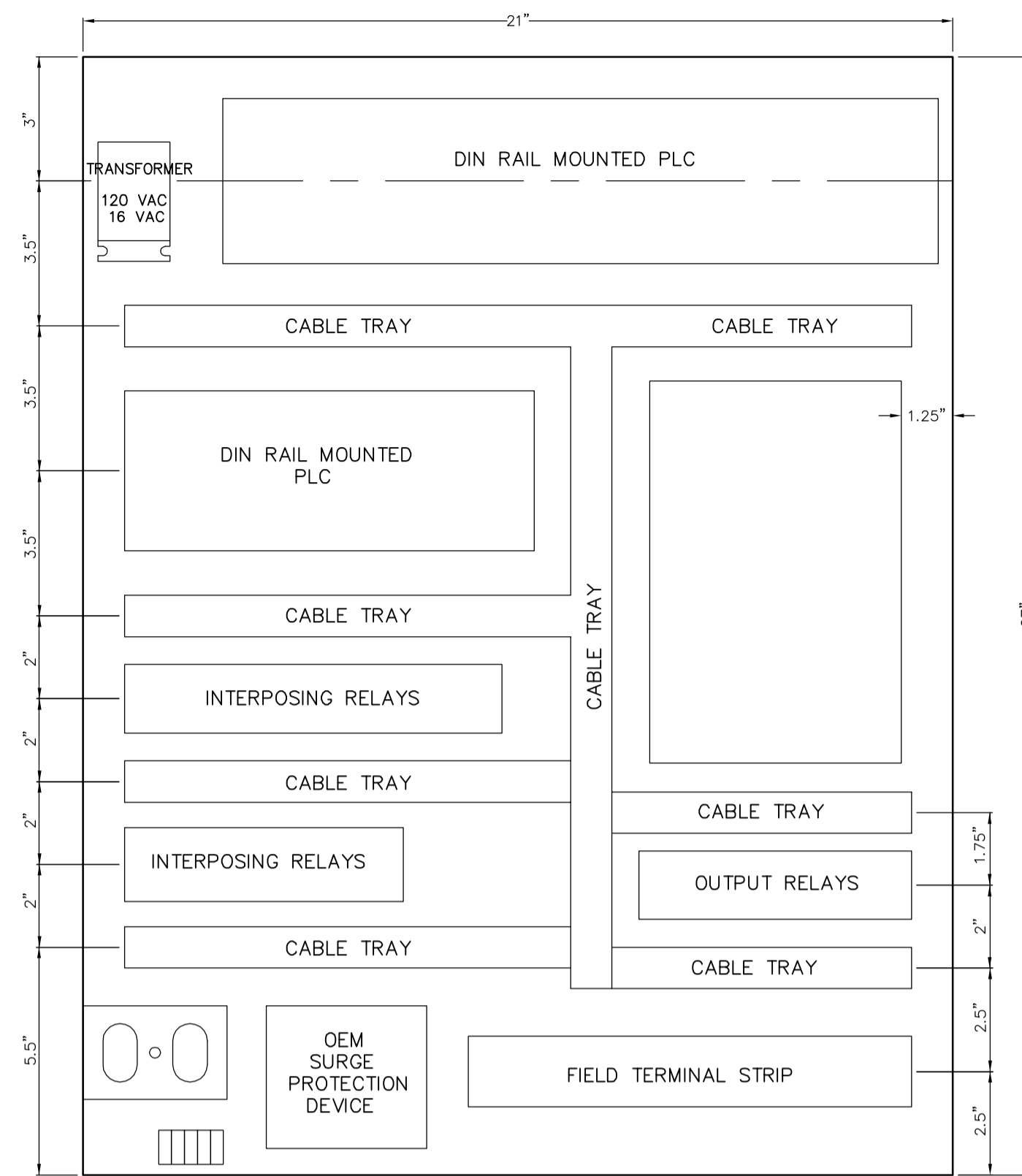
ALARM WIRING TEMPLATE

ALARM INPUT	DESCRIPTION	PLC ADDRESS	COLOR
ALARM INPUT 1	LOCKOUT	10001	BLUE
ALARM INPUT 2	OVERFLOW	10002	BLUE/WHITE
ALARM INPUT 3	STATION FLOOD	10003	BLUE/RED
ALARM INPUT 4	LOW INSTR. AIR	10004	BLUE/BLACK
ALARM INPUT 5	LOW TEMP.	10005	RED
ALARM INPUT 6	LOSS OF SEAL WATER	10006	RED/BLACK
ALARM INPUT 7	GENERATOR RUN	10007	RED/WHITE
ALARM INPUT 8	POWER FAILURE	10008	ORANGE
ALARM INPUT 9	FLOOD STATION HIGH WET WELL	10009	ORANGE/RED
ALARM INPUT 10	FLOOD STATION FLOOD	10010	ORANGE/BLACK
ALARM INPUT 11	GENERATOR FAIL	10011	BLACK
ALARM INPUT 12	WET WELL UPPER	10012	BLACK/WHITE
ALARM INPUT 13	COM/PUMP FAILURE	10013	BLACK/RED
ALARM INPUT 14			GREEN
ALARM INPUT 15			GREEN/BLACK
ALARM INPUT 16			GREEN/WHITE

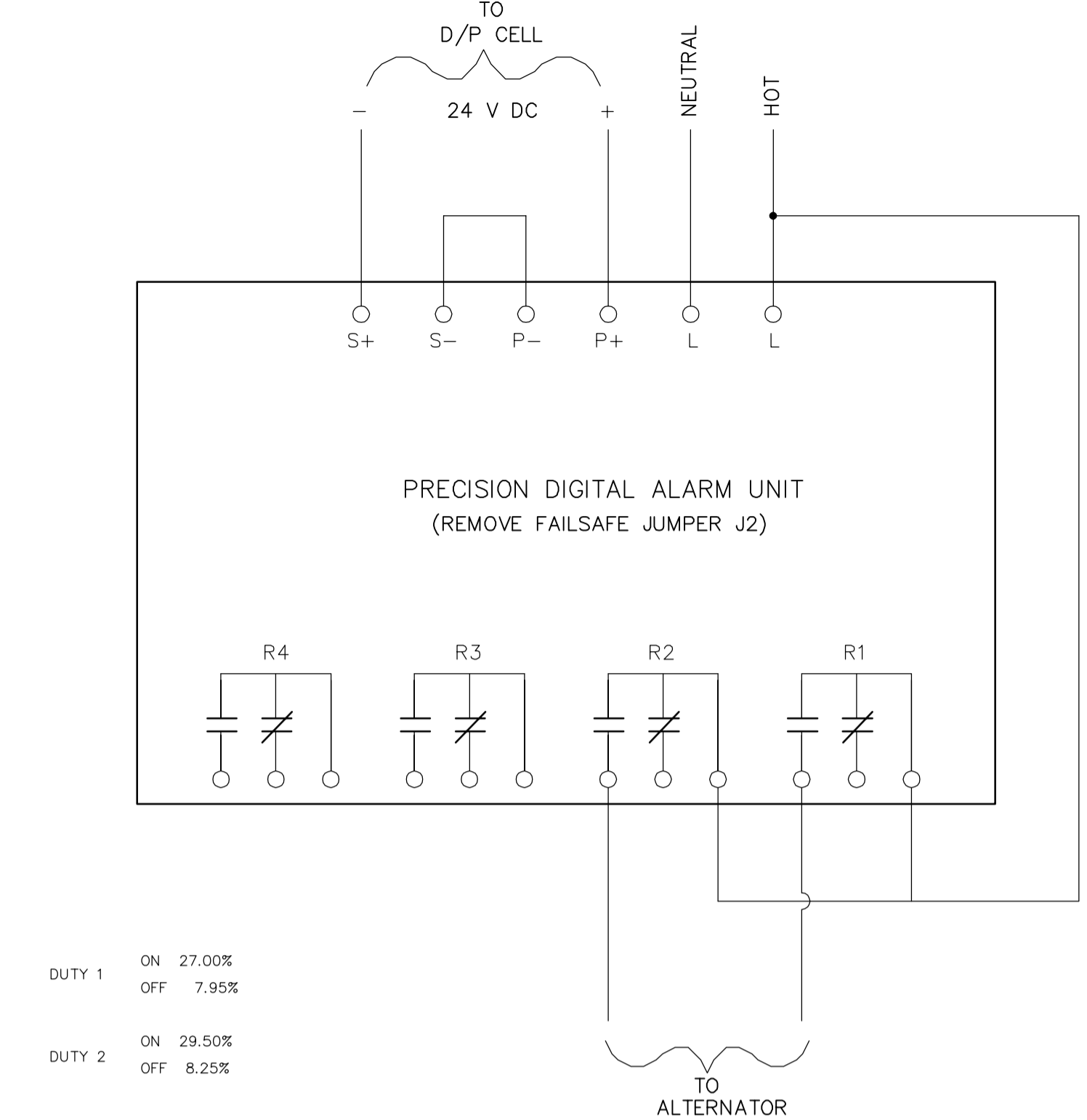
Any other types of alarms are to be wired to alarm inputs 14 through 16. Otherwise call the Metershop for further instructions.

ANALOG WIRING	PLC ADDRESS	
INPUT 1	LIFT LEVEL	30001
INPUT 2	FLOOD LEVEL	30002
INPUT 3	FLOW	30003

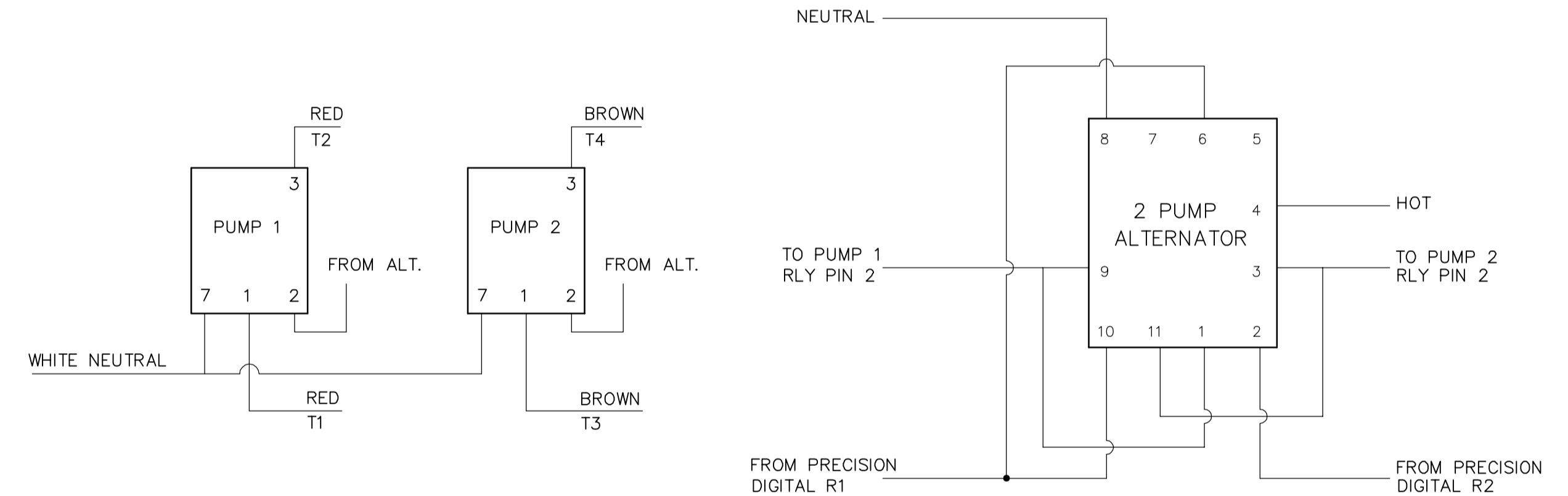
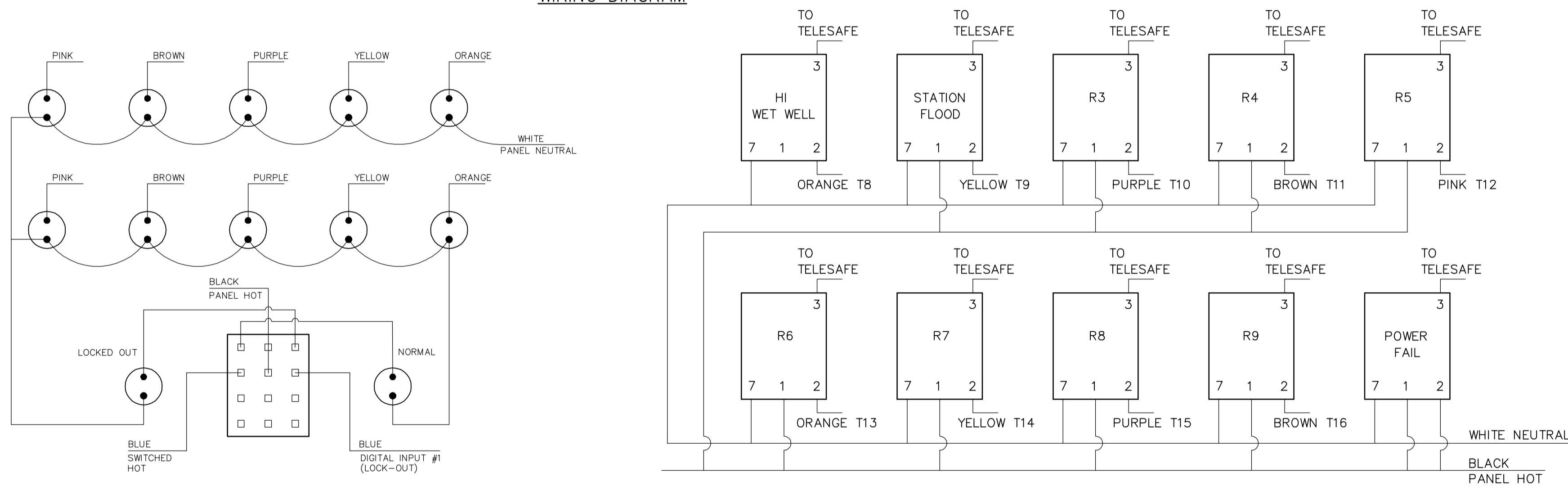
BACK PANEL LAYOUT



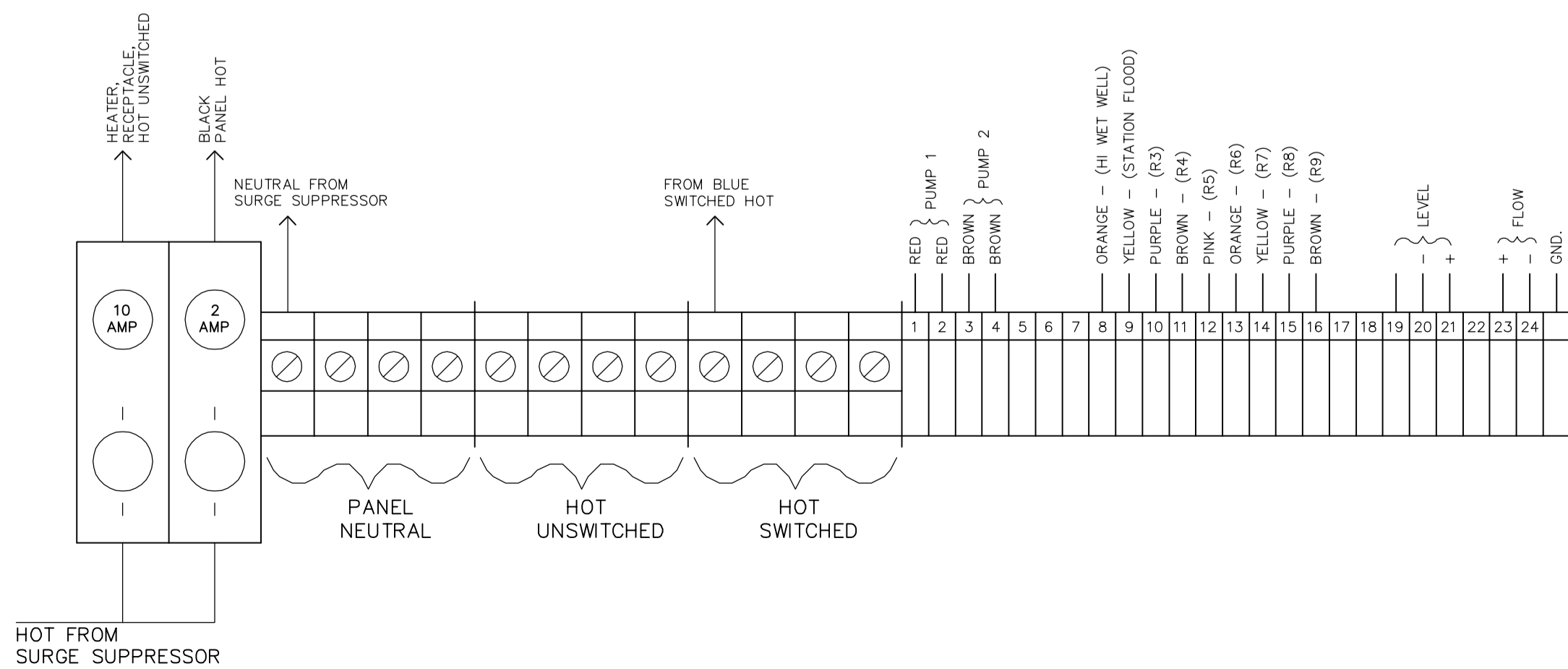
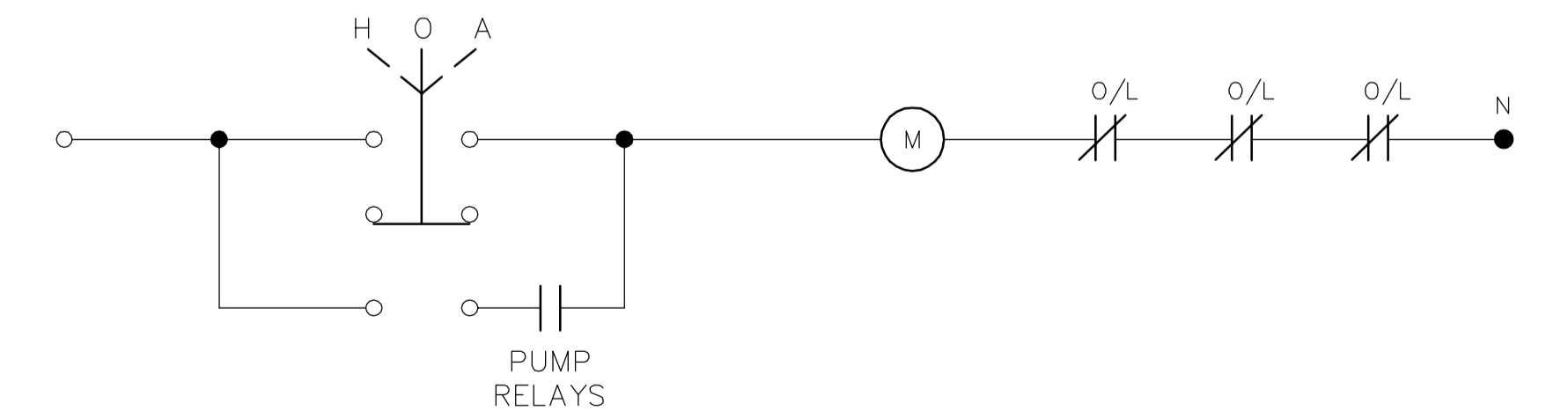
ELECTRICAL DISTRIBUTION LAYOUT



WIRING DIAGRAM



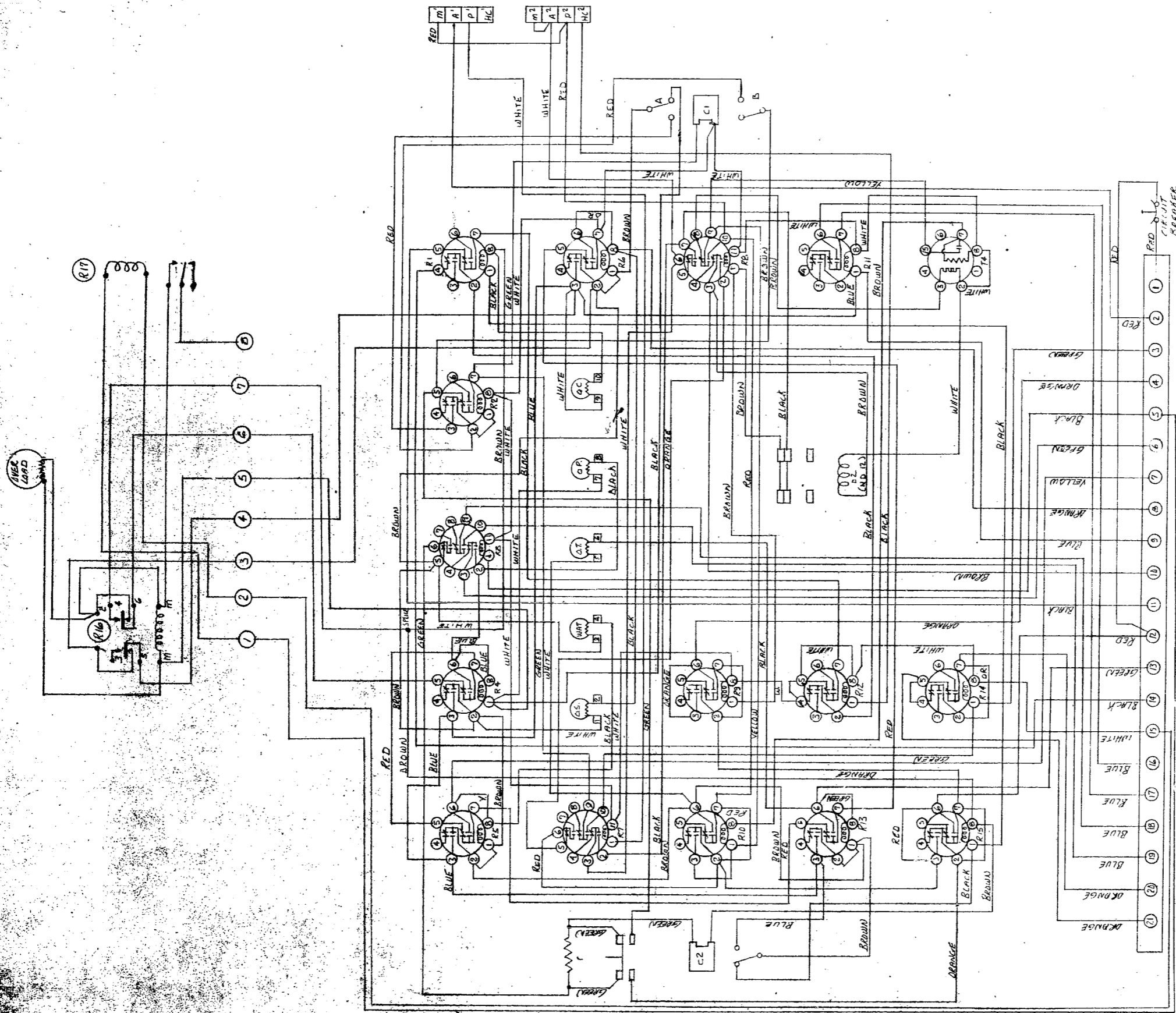
TYPICAL MOTOR STARTER



B.M. ELEV.	FIELD BOOK #:	CITY OF WINNIPEG ENGINEERING DIVISION	ENGINEER'S SEAL	THE CITY OF WINNIPEG WATER AND WASTE DEPARTMENT
POSTED TO LBIS				
DESIGNED BY	CHECKED BY			SHEET OF CITY DRAWING NUMBER 4592
DRAWN BY DS	APPROVED BY			
HOR. SCALE VERTICAL	RELEASED FOR CONSTRUCTION	N.T.S.		ELECTRICAL AND CONTROL PLOT DATE: 1999 04 16
NO. REVISIONS	DATE BY	DATE 1999 04 16	DATE	

REF. or DRAWING NO. **ME-174**

CONTRACT "A" PUMPING STA.
DETAILS D-3392 INTERNAL WIRING OF CONTROL + OVERLOAD SHUTDOWN

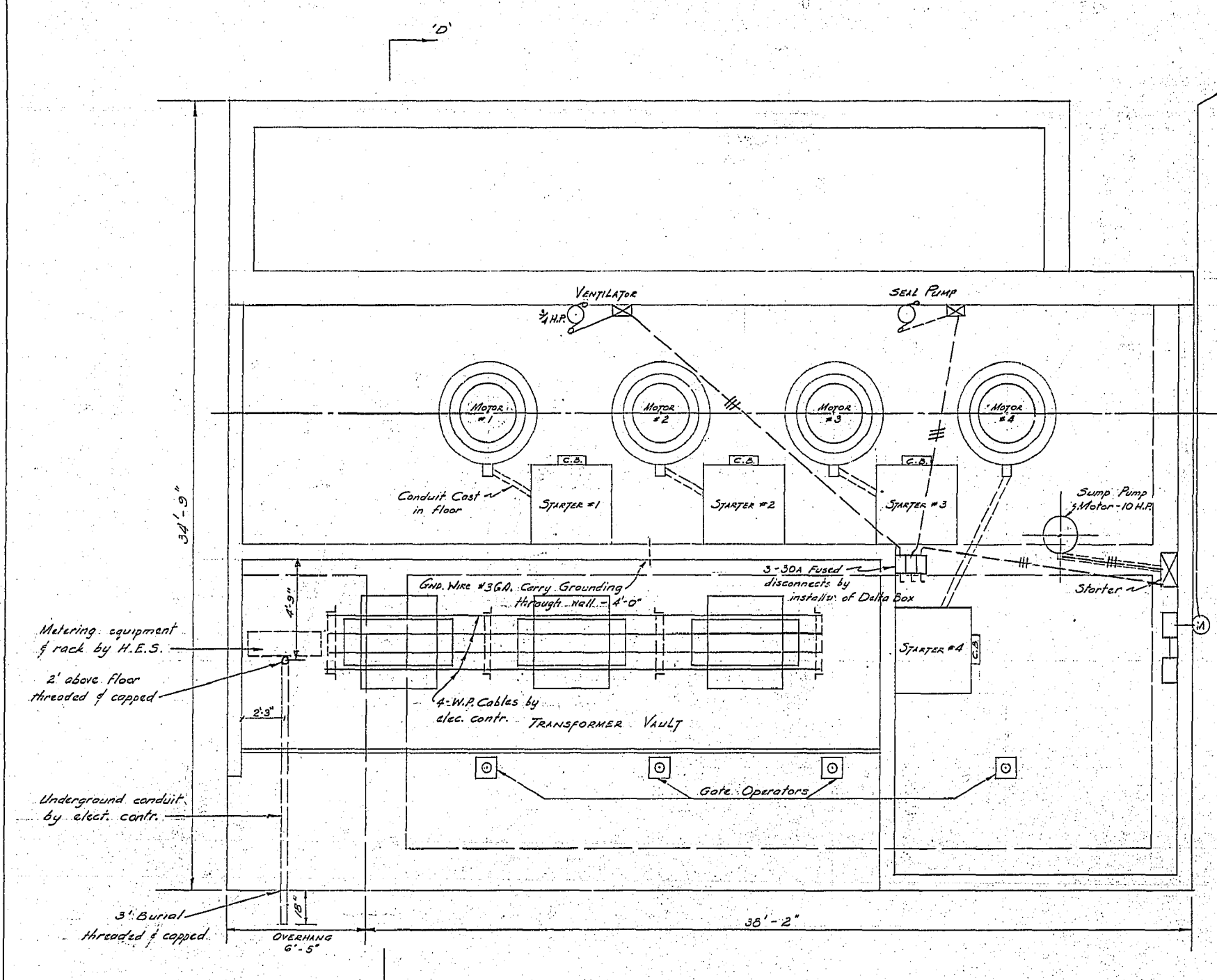


REF. VIEW OF SYNCHRO START

REFER SCHEMATIC D3386

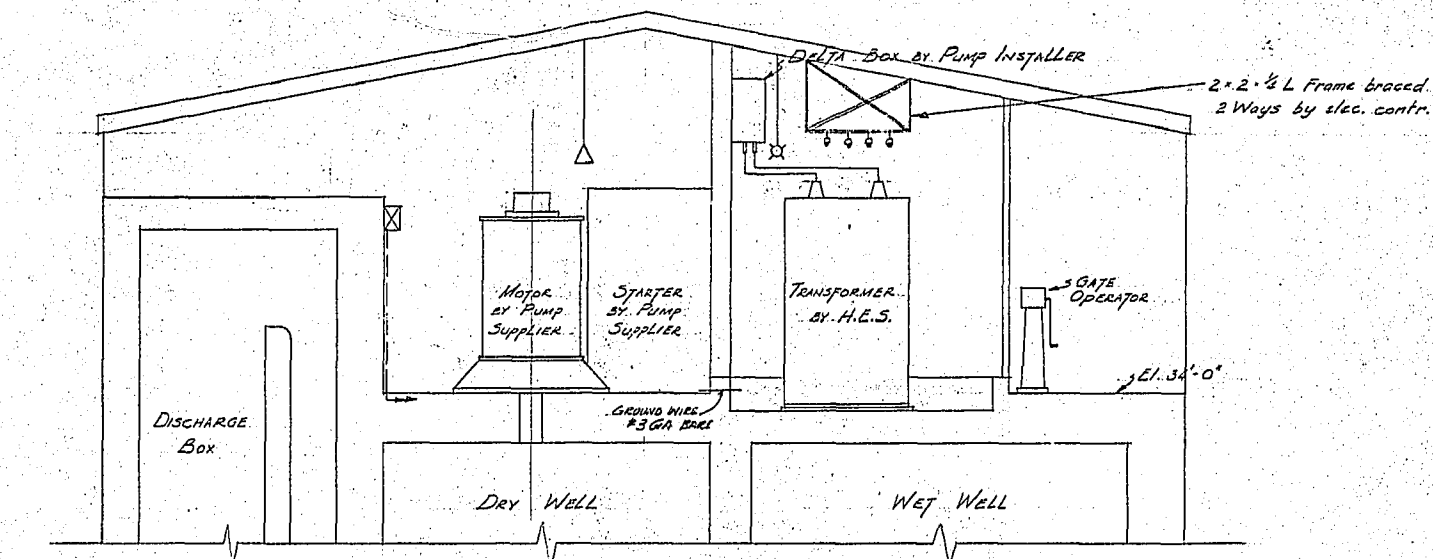
ATLAS *POWEL* **CO. LTD.**
60 NORTHLINE RD. TORONTO 16, ONT.
INTERNAL WIRING OF MODEL 371A1M CONTROL
PLUS OVERLOAD SHUT DOWN

DRAWING NO. **D-3392**
SHEETS SHEET NO. **W 31958**
DATE **June 16/63**

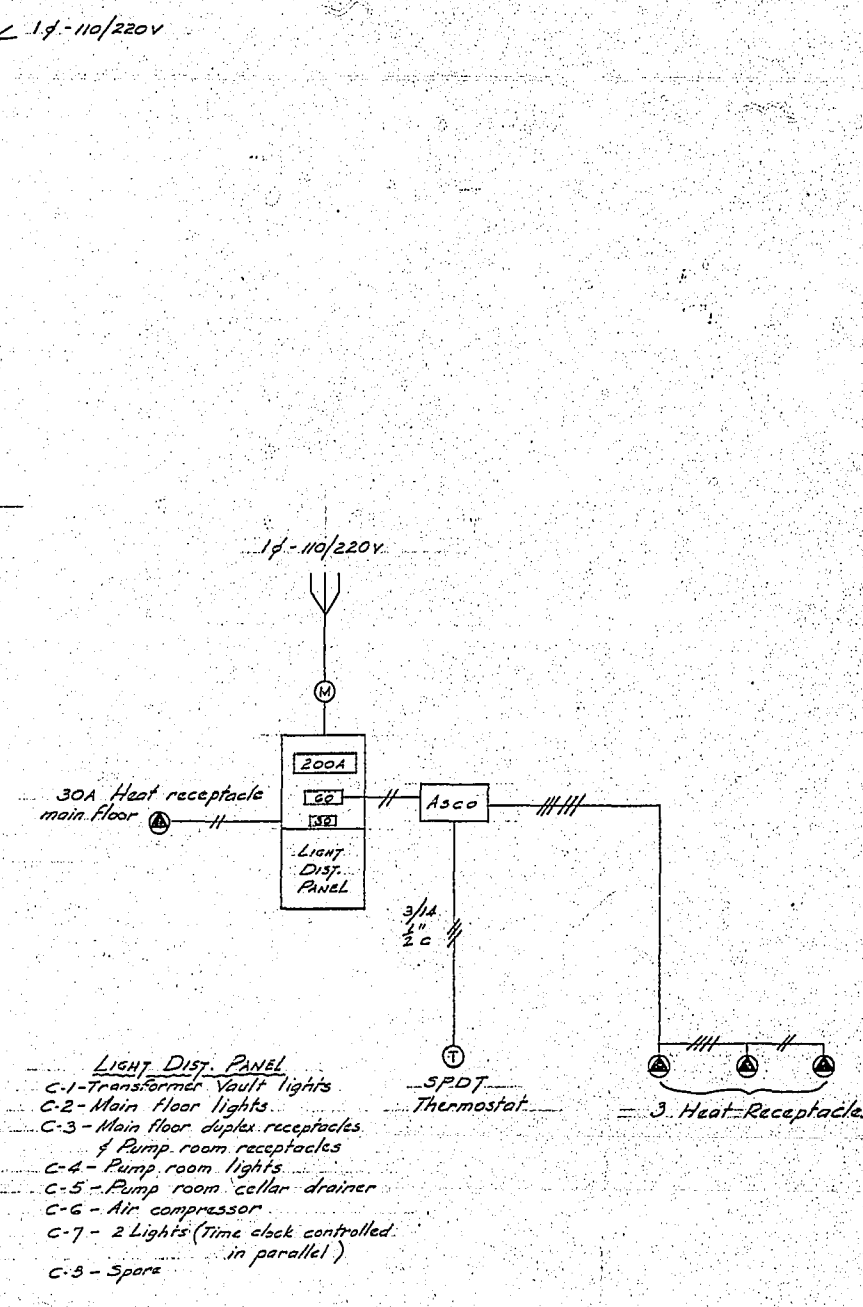


3/4 - 550V WIRING
Motor Floor Plan
Scale 1/4" = 1'-0"

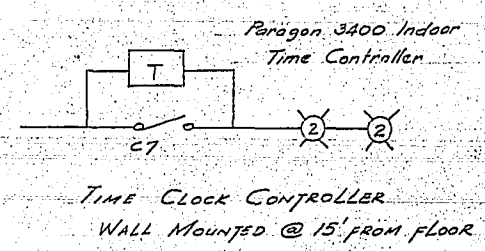
ERECTION NOTE:
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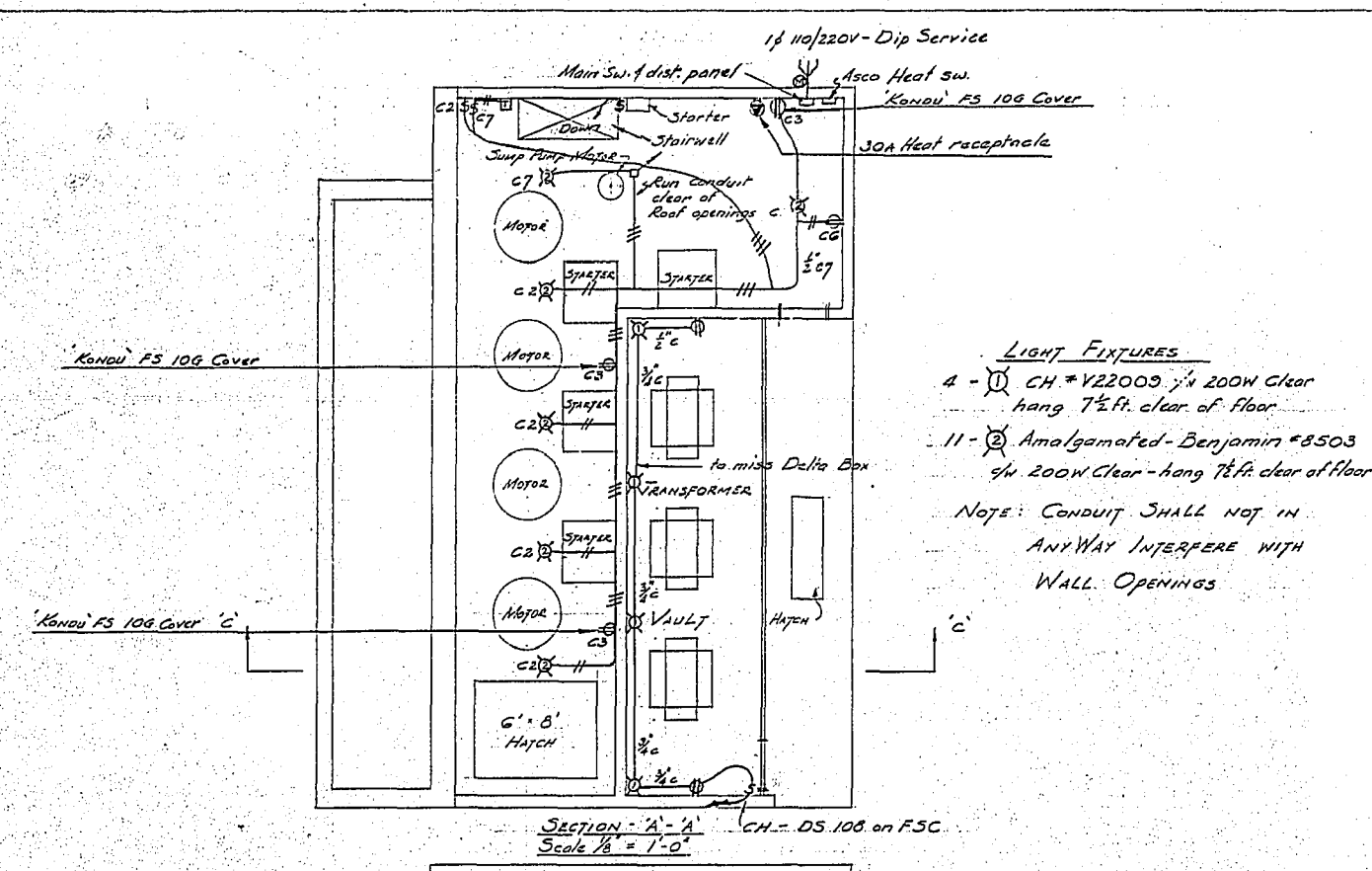
SECTION D-D
Scale 1/4" = 1'-0"



- LIGHT DIST. PANEL**
- C-1 - Transformer Vault lights
 - C-2 - Main floor lights
 - C-3 - Main floor duplex receptacles of Pump room receptacles
 - C-4 - Pump room lights
 - C-5 - Pump room cellar drainer
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 - C-8 - Spare

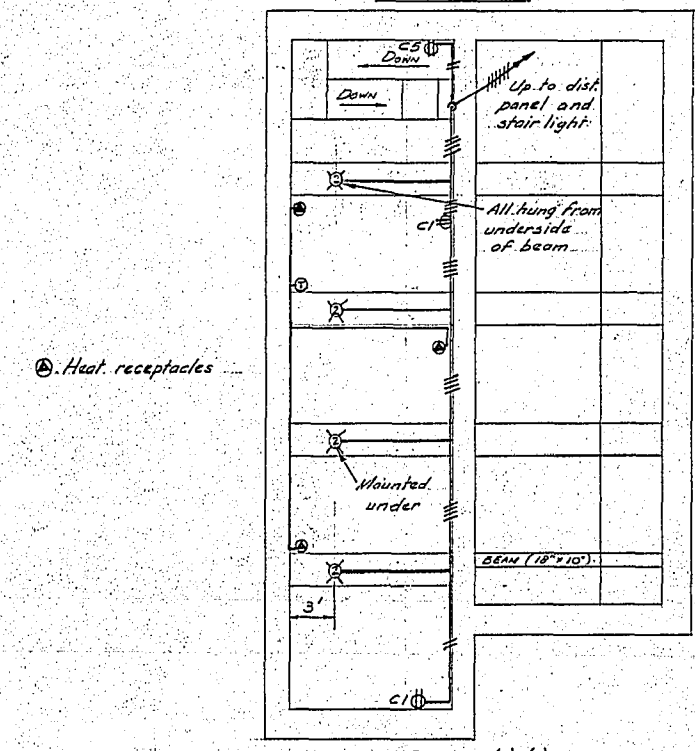


TIME CLOCK CONTROLLER
WALL MOUNTED @ 15' FROM FLOOR

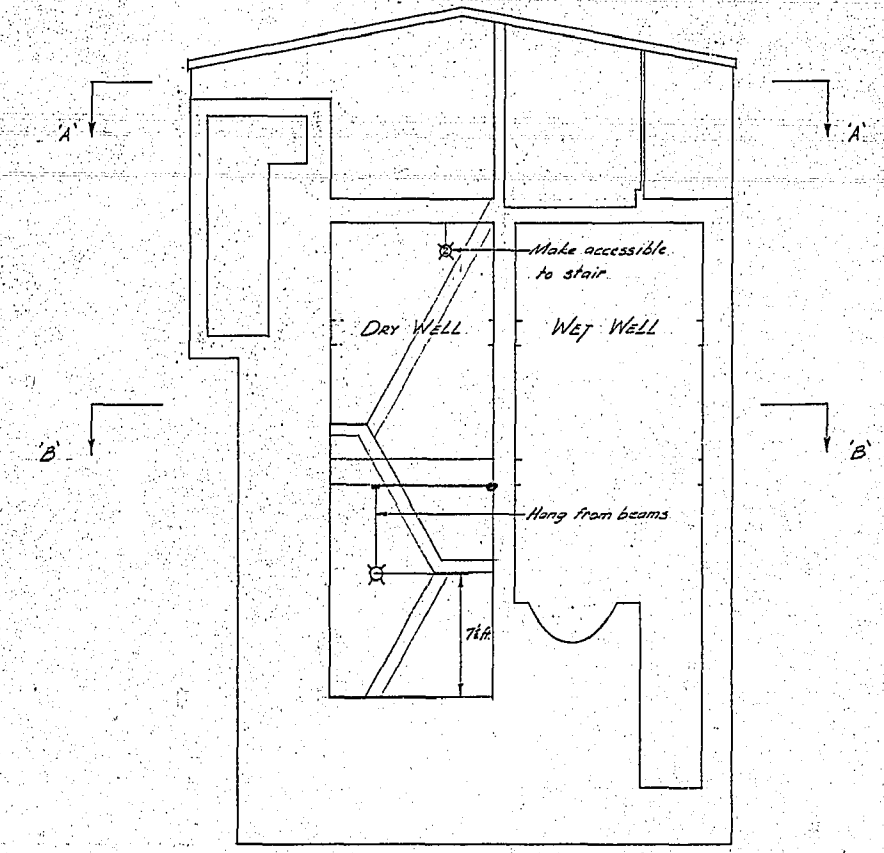


- LIGHT FIXTURES**
- 4 - CH # Y22003 1/4 200W clear hang 7 1/2 ft. clear of floor
 - 11 - Amalgamated - Benjamin #8503 1/4 200W clear - hang 7 1/2 ft. clear of floor
- NOTE: CONDUIT SHALL NOT IN ANYWAY INTERFERE WITH WALL OPENINGS

SECTION A-A
Scale 1/8" = 1'-0"



SECTION B-B
Scale 1/8" = 1'-0"



SECTION C-C
Scale 1/8" = 1'-0"

CLIFTON STREET FLOOD PUMPING STATION
ELECTRICAL

CITY OF WINNIPEG ENGINEERING DEPARTMENT W. D. HURST, CITY ENGINEER J. B. STROWSKI, DEPUTY CITY ENGINEER	DRAWN BY I.C. DATE 13-12-60	SCALE As SHOWN
	TRACED BY [Signature]	DRAWING NO.
	CHECKED BY [Signature]	R-228-K
	APPROVED BY [Signature]	

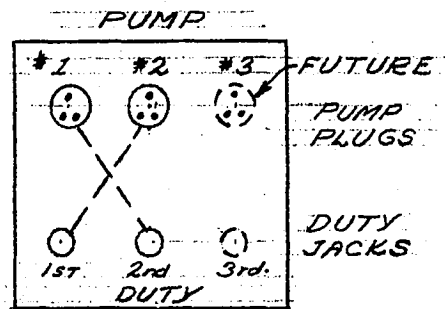
3 CONDUCTOR - #0000 T.W.U. CABLE IN 2 1/2" RIGID ALUMINUM OR PVC CONDUIT C/W #2 GROUND FROM METER AND BREAKER.

	INCOMING LINE CONNECTION
12. CIRCUIT PANEL	PUMP CONTROL
18" FUTURE C/W DOOR AND MOUNT BACK	50 H.P. STARTER
15 AMP 3φ BREAKER	50 H.P. STARTER
7.5 K.V.A. 120/208 VOLT 3φ WIRE TRANSFORMER	50 H.P. STARTER (FUTURE)

NOTE:

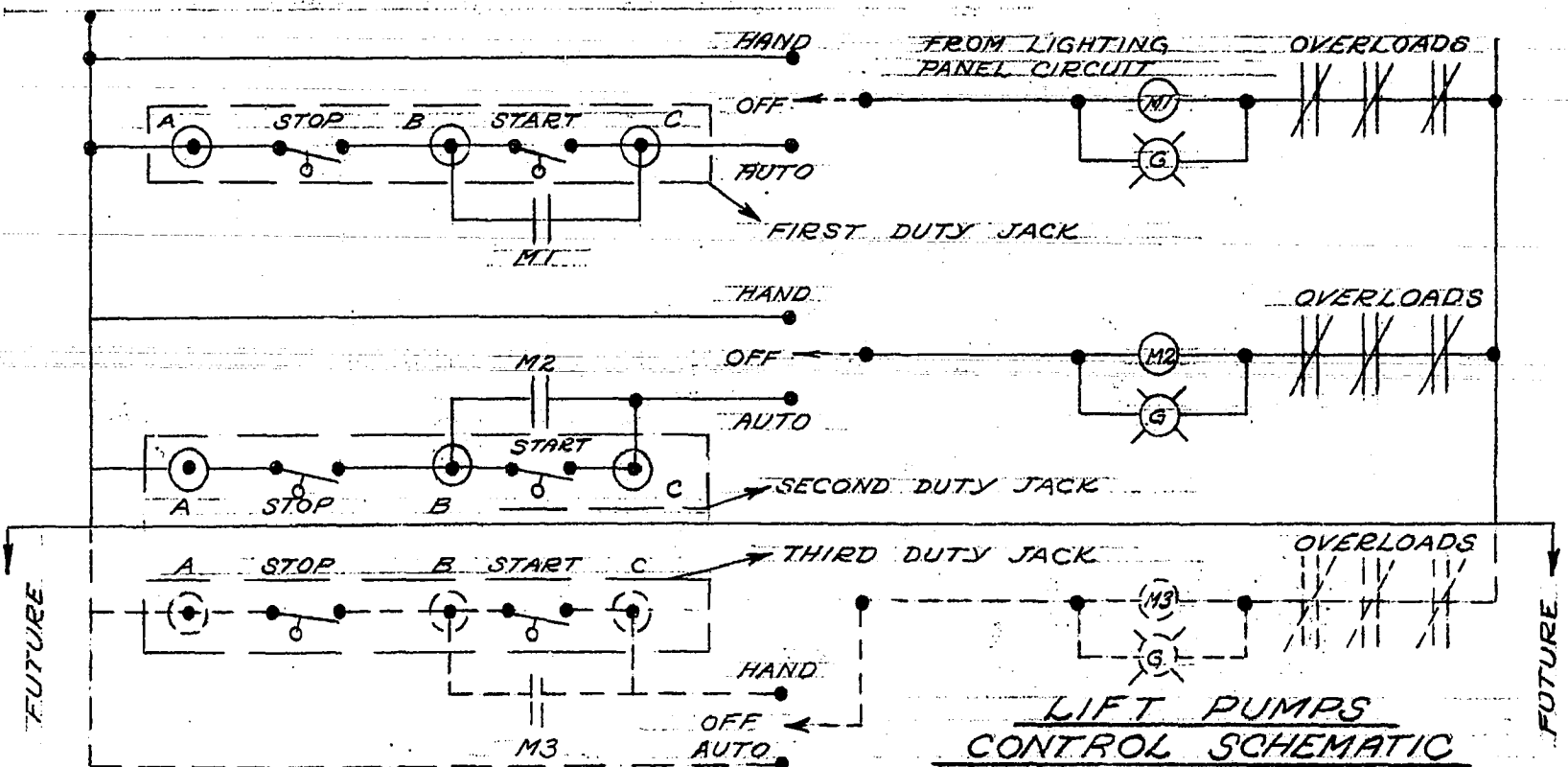
- STARTER UNIT TO BE COMPLETE WITH
 - ① MOULDED CASE CIRCUIT BREAKER
 - ② H.O.A. SELECTOR SWITCHES
 - ③ 3 OVERLOAD RELAYS WITH EXTERNAL RESET
 - ④ ELAPSES TIME METER
 - ⑤ AMMETER
 - ⑥ GREEN RUN INDICATING LIGHT
 - ⑦ 2 N.O. AND 2 N.C. AUXILIARY CONTACTS
- THE CONTRACTOR SHALL SUPPLY A 200 AMP, 600 VOLT, 3 PHASE MAIN BREAKER IN A LOCKABLE CEMA 4 ENCLOSURE AND A METER SOCKET COMPLETE WITH GUARD FOR METER. THESE SHALL REPLACE EXISTING UNITS LOCATED ON SUPERSTRUCTURE.

MOTOR CONTROL CENTER



THE 4 FLYGT LEVEL CONTROL SWITCHES SHALL BE INSTALLED AT THE SAME CONTROL ELEVATIONS AS THE EXISTING CONTROLS AND BE MADE AVAILABLE THROUGH DUTY PLUGS TO START EITHER PUMP UNIT AS 1ST OR 2ND DUTY (SEE POINTS A-B-C)

PUMP CONTROL PANEL



**THE METROPOLITAN CORPORATION OF GREATER WINNIPEG
WATERWORKS & WASTE DISPOSAL DIVISION**

A. PENMAN - DIRECTOR

SEWAGE DISPOSAL DEPT.

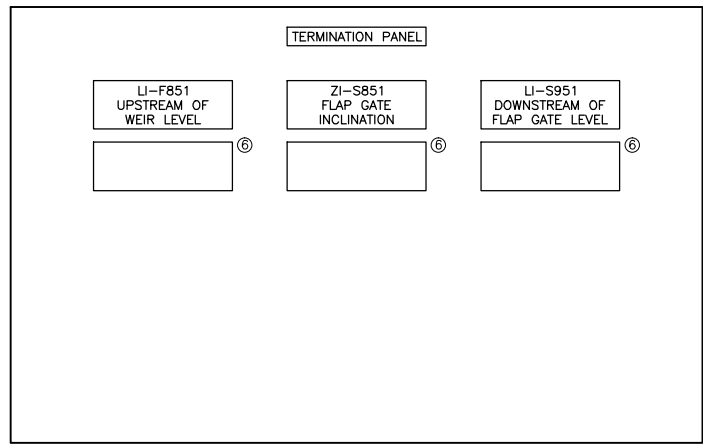
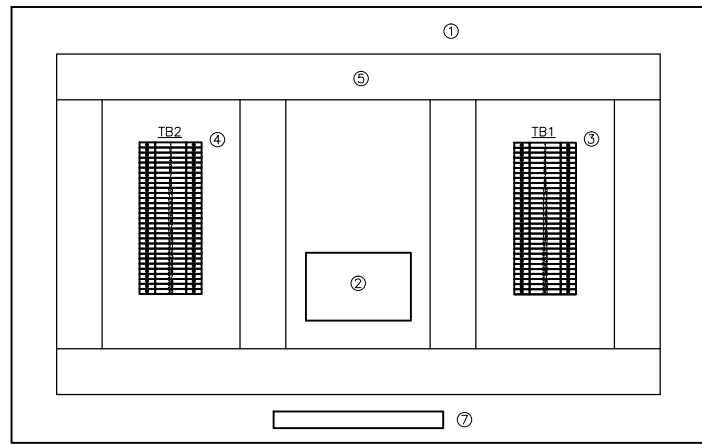
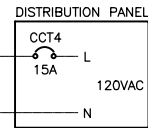
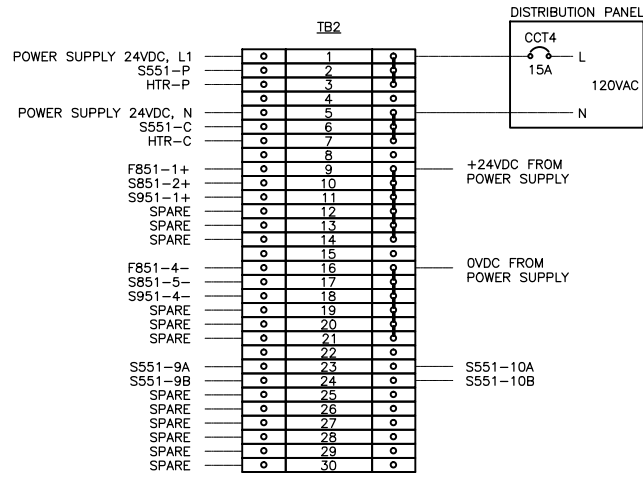
ALTERATIONS TO CLIFTON PUMPING STATION
ELECTRICAL DETAILS

DES. *A. H. Laffey* CH'K'D. *[Signature]*
 DRN. *K. DUMORE* DATE *DEC. 12, 1972*
 ENG. DES. *[Signature]*
 ENG. *[Signature]*
 APPROVED

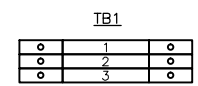
SCALE
NOT TO SCALE

DRAWING NO.
S-370

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 2015/09/10 10:20 AM By: Bekker, Kyle



- NOTES**
- 1) TERMINAL BLOCKS WEIDMULLER #WDU4
 - 2) FUSED TERMINAL BLOCKS WEIDMULLER #WSI6:
 - 3) JUMPERS: 1-3; 5-7; 9-14; 16-21

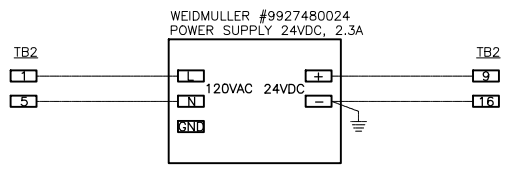


- 1) FUSED TERMINAL BLOCKS WEIDMULLER #WSI6, C/W 500mA FUSE
- 2) FEED-THROUGH TERMINAL BLOCKS WEIDMULLER #WDU4
- 3) FEED-THROUGH TERMINAL BLOCKS WEIDMULLER #WDU4
- 4) REPEAT FOR ALL AIs AND AOs.

TB2 STRIP DETAIL

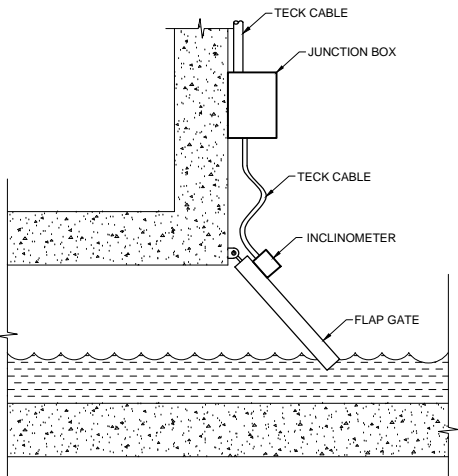
TB1 STRIP DETAIL

TERMINATION PANEL DETAIL

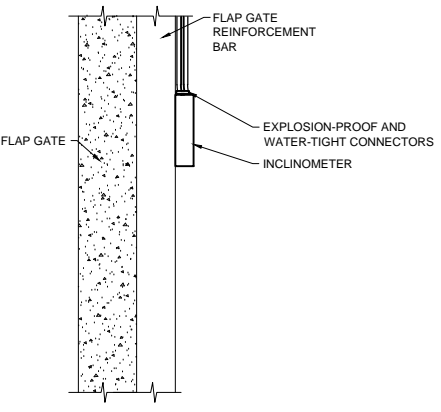


POWER SUPPLY 24VDC WIRING DETAIL

- LEGEND**
- 1) HOFFMAN #CSD20248 TYPE 12 ENCLOSURE C/W PANEL #CP2024
 - 2) WEIDMULLER #9927480024 POWER SUPPLY 24VDC, 2.3A
 - 3) TB1 TERMINAL BLOCKS STRIP. SEE DETAIL.
 - 4) TB2 TERMINAL BLOCKS STRIP. SEE DETAIL.
 - 5) PANDUIT #E1X2LG6 WIRE DUCT C/W COVER #C1LG6
 - 6) SIEMENS #7ML5741 DIGITAL INDICATOR
 - 7) TEMPCO #EHR00014 ENCLOSURE HEATER, 120W, 120V, C/W INTEGRAL (BUILT-IN) THERMOSTAT 40°F/60°F (CLOSE/OPEN)



ELEVATION VIEW



PLAN VIEW

GENERAL NOTES

- 1) CABLE SHALL BE SECURED ON THE FLAP GATE CHAMBER WALL AND FLAP GATE
- 2) EXTRA CABLE SHALL BE PROVIDED TO RELIEVE CABLE STRESS AT THE JUNCTION OF THE FLAP GATE AND THE CHAMBER WALL
- 3) INSTRUMENT AND JUNCTION BOX MOUNTING BRACKET NEED TO BE ADJUSTED ACCORDING TO FLAP GATE DESIGN
- 4) EXPLOSION-PROOF CONNECTOR SHALL BE SEALED WITH EPOXY TO PREVENT GAS MIGRATION

RST INSTRUMENTS INCLINOMETER INSTALLATION DETAIL

No.	INSTRUMENT TAG	DESCRIPTION	MANUFACTURER	MODEL	PLC I/O TYPE	POWER SUPPLY	LOCATION
1	FIT-S551	ULTRASONIC FLOW METER	ADS FLOWSHARK	20A1E	3X AI, 1XDI	120VAC	UPSTREAM OF WEIR
2	LIT-F851	RADAR LEVEL TRANSMITTER	ENDRESS+HAUSER	FMR240	1X AI	24VDC	UPSTREAM OF WEIR
3	ZT-S851	INCLINATION TRANSMITTER	RST INSTRUMENTS	ICEX360A	1X AI	24VDC	FLAP GATE
4	LIT-S951	RADAR LEVEL TRANSMITTER	SIEMENS	LR200	1X AI	24VDC	DOWNSTREAM OF FLAP GATE

INSTRUMENT LIST

No.	CABLE TAG	FROM	TO	DESCRIPTION	MANUFACTURER	CATALOG No.	NOTE
1	CA-S551-2	JBA-S551	FIT-S551	#16 AWG, 4-TRIAD, TWISTED, SHIELDED	TEXCAN	C3-9336-1604-19	SENSOR CABLE
2	CA-S551-3	FIT-S551	TERMINATION PANEL	#16 AWG, 4-PAIR, TWISTED, SHIELDED	TEXCAN	C3-9326-1604-19	3 AI TO RTU
3	CA-S551-4	FIT-S551	TERMINATION PANEL	#16 AWG, 2-PAIR, TWISTED, SHIELDED	TEXCAN	C3-9326-1602-19	1 DI TO RTU
4	CA-S551-5	FIT-S551	TERMINATION PANEL	#14 AWG, 2C, TECK 90	TEXCAN	05001-01-010	POWER 120VAC
5	CA-F851-1	LIT-F851	TERMINATION PANEL	#16 AWG, 2-PAIR, TWISTED, SHIELDED	TEXCAN	C3-9326-1602-19	4-20mA
6	CA-S851-1	ZT-S851	JBA-S851	#16 AWG, 2-PAIR, TWISTED, SHIELDED	TEXCAN	C3-9326-1602-19	4-20mA
7	CA-S851-2	JBA-S851	TERMINATION PANEL	#16 AWG, 2-PAIR, TWISTED, SHIELDED	TEXCAN	C3-9326-1602-19	4-20mA
8	CA-S951-1	LIT-S951	TERMINATION PANEL	#16 AWG, 2-PAIR, TWISTED, SHIELDED	TEXCAN	C3-9326-1602-19	4-20mA
9	C-TP1	DISTRIBUTION PANEL	TERMINATION PANEL	#12 AWG, 2C, TECK 90	TEXCAN	05002-01-010	POWER 120VAC

CABLE LIST

WARNING

IF POWER EQUIPMENT OR EXPLOSIVES ARE TO BE USED FOR EXCAVATION ON THIS PROJECT THE CONTRACTOR MUST:

- 1) NOTIFY THE GAS COMPANY OF THE PROPOSED LOCATION OF EXCAVATION.
- 2) TAKE PRECAUTION TO AVOID DAMAGE TO GAS COMPANY INSTALLATIONS.

SEE PROVINCIAL REGULATION 140/92 FOR DETAILS

METRIC

WHOLE NUMBERS INDICATE MILLIMETRES
DECIMALIZED NUMBERS INDICATE METRES

APEGM
Certificate of Authorization
Stantec Consulting Ltd.
No. 1301

LOCATION APPROVED UNDERGROUND STRUCTURES

SUPV. U/G STRUCTURES COMMITTEE	DATE

NOTE:
LOCATION OF UNDERGROUND STRUCTURES AS SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE BUT NO GUARANTEE IS GIVEN THAT ALL EXISTING UTILITIES ARE SHOWN OR THAT THE GIVEN LOCATIONS ARE EXACT. CONFIRMATION OF EXISTENCE AND EXACT LOCATION OF ALL SERVICES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION.

B.M. ELEV.	NO.	REVISIONS	DATE	BY
	C	AS BUILT DRAWING	15.04.16	J.C.
	B	ISSUED FOR CONSTRUCTION	14.06.27	J.C.
	A	ISSUED FOR CLIENT REVIEW	14.06.20	J.C.

Stantec Consulting Ltd.
905 Waverley Street, Winnipeg, Manitoba
Tel 204-489-5900 Fax 204-453-9012

DESIGNED BY	S.T.	CHECKED BY	B.J.
DRAWN BY	S.T.	APPROVED BY	B.J.
HOR. SCALE:	N.T.S.	RELEASED FOR CONSTRUCTION:	
VERTICAL:		DATE	2014.01.28

ENGINEER'S SEAL

CONSULTANT DRAWING NO.
E-0202

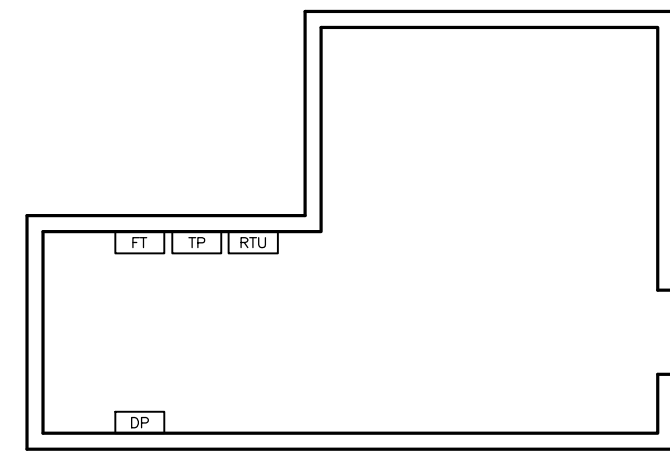
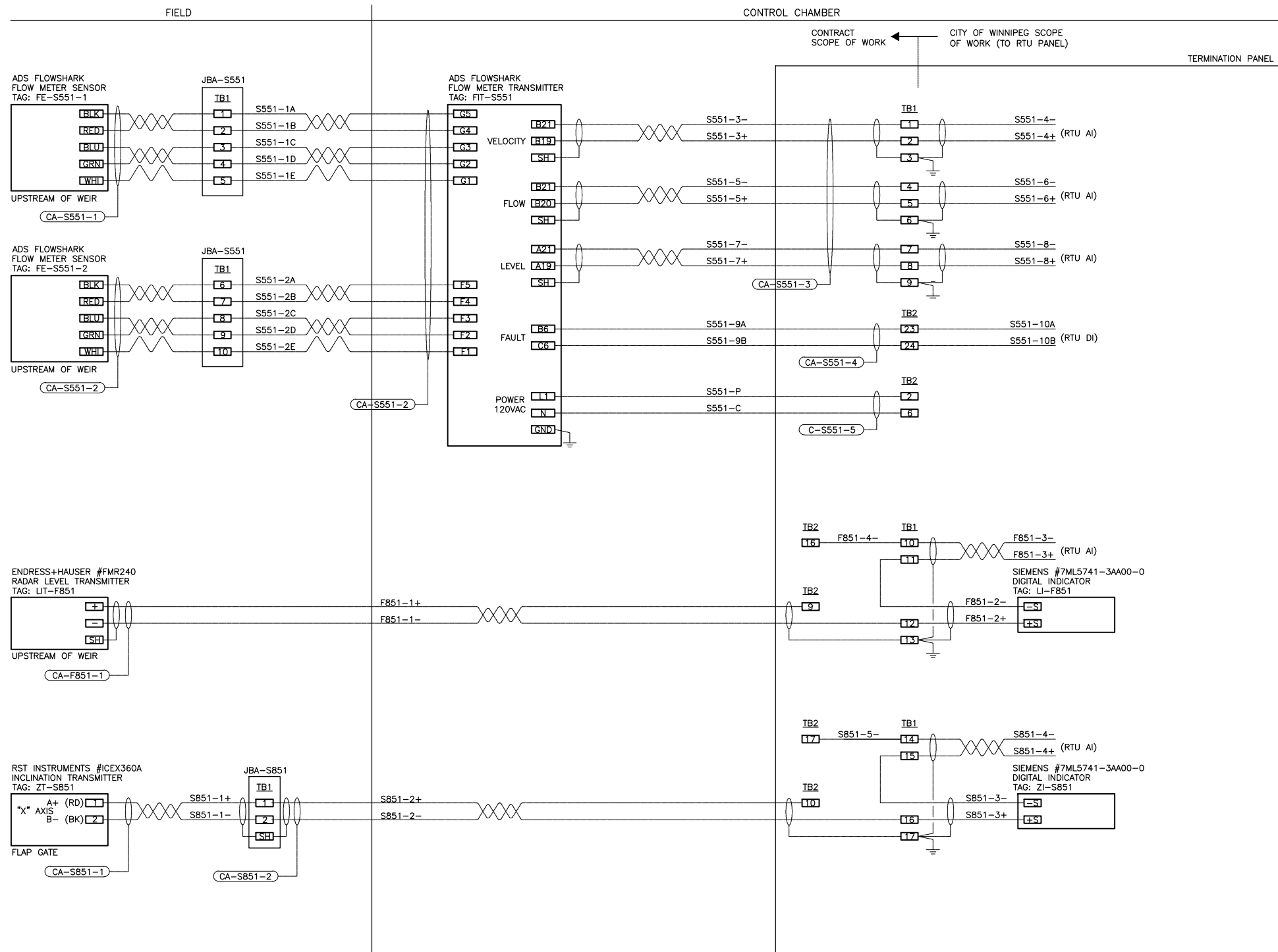
THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT

CSO OUTFALL MONITORING
CLIFTON

TERMINATION PANEL LAYOUT
INSTRUMENT LIST, CABLE LIST

SHEET	OF
1	1
CAD FILE DRAWING NUMBER 14720e-0202-cli.dwg	
CITY DRAWING NUMBER I-0125-A-A0203-001-00	

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 2015/09/10 10:20 AM By: Bekker, Kyle



ELECTRICAL ROOM FLOOR PLAN

LEGEND

- RTU - NEW RTU PANEL
- TP - NEW TERMINATION PANEL
- DP - EXISTING DISTRIBUTION PANEL 120VAC
- FT - NEW FLOW METER TRANSMITTER

NOTES

- 1) INSTALL TWO FULL SHEETS OF PLYWOOD AND MOUNT ON BACKBOARD RTU PANEL, TP PANEL AND FLOW METER TRANSMITTER.
- 2) GROUND INSTRUMENTATION CABLE SHIELDS ONLY AT TERMINATION PANEL.

WARNING

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 DECIMALIZED NUMBERS INDICATE METRES

APEGM
 Certificate of Authorization
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NO.	REVISIONS	DATE	BY
C	AS BUILT DRAWING	15.04.16	J.C.
B	ISSUED FOR CONSTRUCTION	14.06.27	J.C.
A	ISSUED FOR CLIENT REVIEW	14.06.20	J.C.

Stantec Consulting Ltd.
 905 Waverley Street, Winnipeg, Manitoba
 Tel 204-489-5900 Fax 204-453-9012

DESIGNED BY	S.T.	CHECKED BY	B.J.
DRAWN BY	S.T.	APPROVED BY	B.J.
HOR. SCALE:	N.T.S.	RELEASED FOR CONSTRUCTION:	
VERTICAL:		DATE	2014.01.28

ENGINEER'S SEAL

CONSULTANT DRAWING NO.
E-0203

THE CITY OF WINNIPEG
 WATER AND WASTE DEPARTMENT

CSO OUTFALL MONITORING
 CLIFTON
ELECTRICAL ROOM LAYOUT
 LOOP WIRING DIAGRAMS

SHEET	OF
1	2
CAD FILE DRAWING NUMBER 14720e-0203-cli.dwg	
CITY DRAWING NUMBER I-0125-A-A0204-001-00	