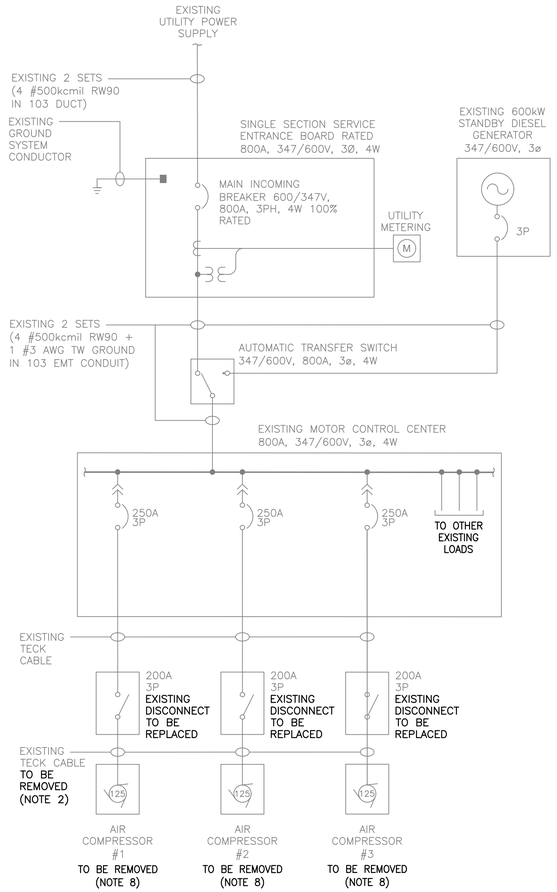
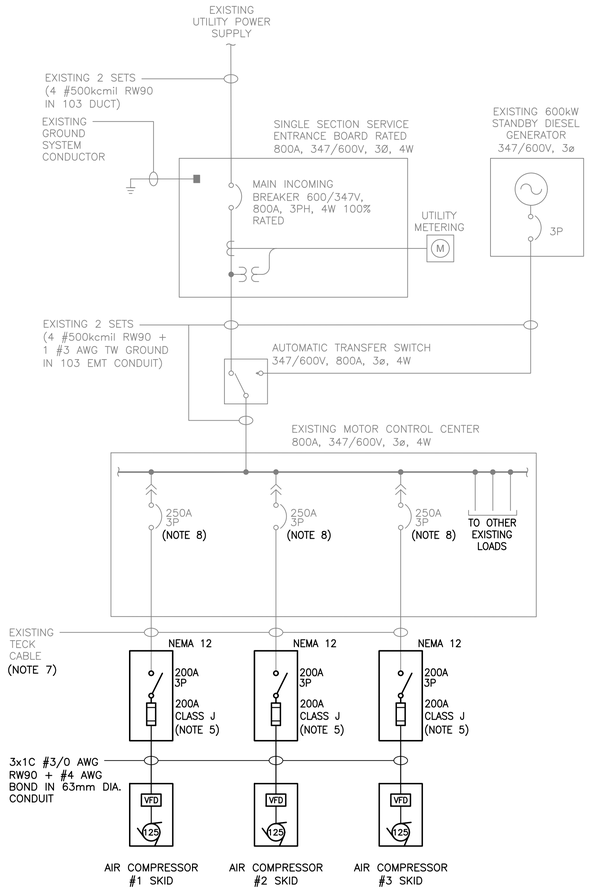
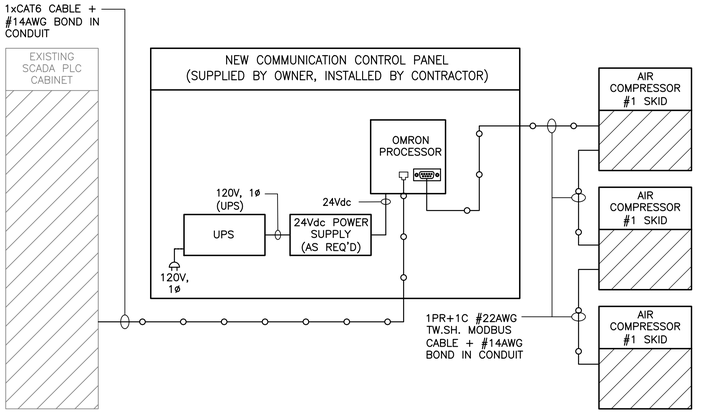


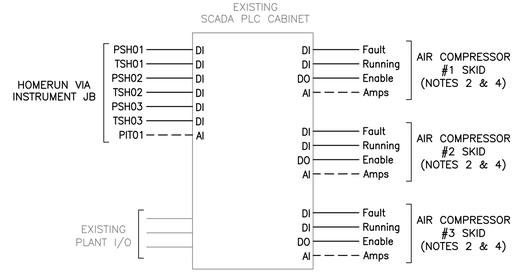
1 — PARTIAL SINGLE LINE DIAGRAM— EXISTING MODIFICATIONS
N.T.S.



2 — PARTIAL SINGLE LINE DIAGRAM— PROPOSED MODIFICATIONS
N.T.S.



3 — BLOCK DIAGRAM— PLC COMMUNICATION TO AIR COMPRESSOR SKIDS
N.T.S. (SEE NOTE 2)

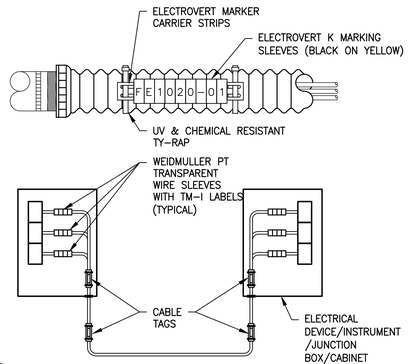


DETAIL 4 NOTES:
a. FOR EACH DI/DO, PROVIDE 2x1C #14 AWG RW90 + #14 AWG BOND IN CONDUIT.
b. FOR EACH AI/AO, PROVIDE 1PR #16 AWG (SHIELDED & TWISTED) + #14 AWG BOND IN CONDUIT.
c. INCLUDE FIELD TERMINALS FOR SPARE I/O.

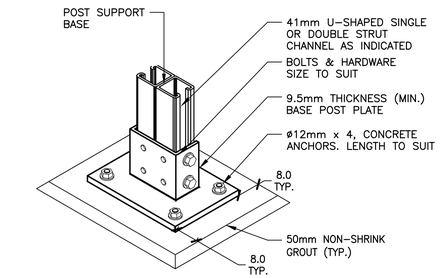
4 — IO LIST— MODIFICATIONS TO EXISTING SCADA PLC CABINET
N.T.S. (SEE NOTE 6)

NOTES:

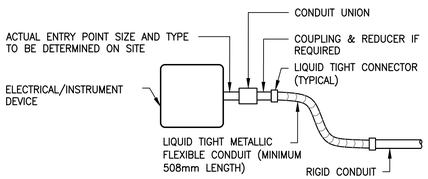
1. UNLESS OTHERWISE NOTED, ELECTRICAL EQUIPMENT IS NEW.
2. EXISTING EQUIPMENT TO BE REMOVED, DISCONNECT & REMOVE ASSOCIATED CABLES/CONDUITS BACK TO THE SOURCE. CONTROL IO TO BE MADE SPARE.
3. REFER TO DRAWING E04 FOR ADDITIONAL ELECTRICAL INSTALLATION REQUIREMENTS.
4. EXISTING DIGITAL 'ENABLE' SIGNAL TO BE REPURPOSED FOR ENABLE ON THE NEW AIR COMPRESSOR SKIDS. REMAINING EXISTING I/O TO BE MADE SPARE.
5. VERIFY FUSE RATING WITH VFD MANUFACTURER'S INSTRUCTIONS.
6. SUPPLY, INSTALL AND SIZE CONDUITS, CONDUIT FITTINGS AND JUNCTION BOXES PER THE CANADIAN ELECTRICAL CODE. THE CONTRACTOR MAY COMBINE CONDUITS OF SIMILAR CIRCUITS AS DICTATED FIELD CONDITIONS AND THE CANADIAN ELECTRICAL CODE TO REDUCE THE NUMBER OF CONDUITS. THE MAXIMUM INSTRUMENTATION/CONTROL CONDUIT SIZE IS 53mm DIAMETER.
7. EXISTING DISCONNECT FOR AIR COMPRESSORS 1, 2 AND 3 TO BE REPLACED WITH NEW FUSED DISCONNECTS. EXISTING POWER CABLING FROM MCC TO TERMINATE INTO NEW DISCONNECT.
8. EXISTING CIRCUIT BREAKER TRIP SETTINGS TO BE ADJUSTED BASED ON VFD REQUIREMENTS.



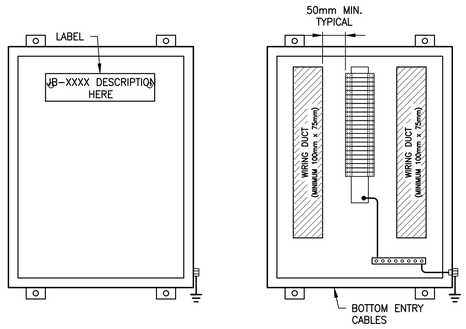
5 — DETAIL— CABLE & CONDUCTOR IDENTIFICATION
N.T.S. TYP. FOR ALL CABLE AND CONDUIT RUNS



9 — DETAIL— EQUIPMENT PAD
N.T.S. TYPICAL FOR DIVISION 26 EQUIPMENT AND SUPPORTS



6 — DETAIL— EQUIPMENT CONDUIT ENTRY (NON-HAZARDOUS AREAS)
N.T.S. (TYPICAL: ALL)

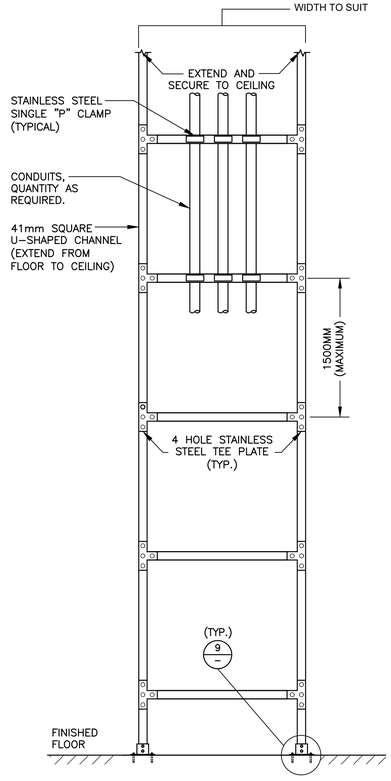


DETAIL 7 NOTES:

a. THIS LAYOUT DRAWING APPLIES TO RELAY CONTROL PANELS. THE ABOVE LAYOUT IS TO BE USED AS A GUIDE ONLY. REFER TO THE INSTRUMENTATION CABLING DIAGRAMS, AND CONTROL SCHEMATICS TO DETERMINE THE NUMBER OF PUSHBUTTONS, SWITCHES, INDICATING LIGHTS, RELAYS, TERMINAL BLOCKS, ETC., REQUIRED FOR EACH CONTROL PANEL.

b. REFER TO SPECIFICATION DRAWING E04 FOR MATERIAL REQUIREMENTS.

7 — DETAIL— TYPICAL CONTROL PANEL LAYOUT
N.T.S. TYPICAL FOR INSTRUMENT JUNCTION BOX



8 — DETAIL— VERTICAL CONDUIT/CABLE SUPPORT STRUCTURE
N.T.S.

PROVINCE OF NEWFOUNDLAND AND LABRADOR
pegnl ENGINEERING PERMIT D0178
CBCL Limited
M.I.R.C JOHN R. W. KERR #09561
Signature or Member Number (Member-in-Responsible Charge)

Licensed Professional Engineer 09561 John R.W. Kerr Year Valid 2026 2026-JAN-07 pegnl Newfoundland and Labrador

Rev.	Description	Date	By
1	ISSUED FOR ADDENDUM 1	JAN 07/26	JRK
0	ISSUED FOR TENDER	DEC 12/25	JRK

NOT FOR CONSTRUCTION

TOWN OF GANDER

WATER TREATMENT PLANT

AIR COMPRESSOR REPLACEMENT PROJECT

ELECTRICAL SINGLE LINE DIAGRAMS, SCHEMATIC, IO LIST & DETAILS

CBCL

Scale	Drawn	Designed	Checked	Approved
N.T.S.	IGG	JRK	LH	BB

Date JUNE 2025 — Contract No

Drawing No 253032.00-E-02 — Revision 1