

LINETYPE LEGEND

- EXISTING EQUIPMENT
- NEW EQUIPMENT

EQUIPMENT LEGEND

- POWER PANEL
- EQUIPMENT PANEL
- ⊕ AMBER ALARM BEACON
- PUSHBUTTON
- NON-FUSIBLE DISCONNECT
- ⊗ JUNCTION BOX

GENERAL NOTES

1. ALL ELECTRICAL EQUIPMENT LOCATIONS ON ELECTRICAL DRAWINGS ARE TO BE CONSIDERED APPROXIMATE. ANY DEVIATION OF LOCATIONS OF ELECTRICAL EQUIPMENT SHALL BE MARKED-UP ACCORDINGLY FOR ACCURATE REPRESENTATION ON AS-BUILT PLANS.
2. ARCHITECTURAL BACKGROUNDS IN ELECTRICAL DRAWINGS ARE REPRESENTATIVE ONLY. ALTHOUGH EVERY EFFORT HAS BEEN MADE TO ENSURE THE ACCURACY OF THESE BACKGROUNDS, ACTUAL SITE CONDITIONS AND LATEST ARCHITECTURAL DOCUMENTS MAY VARY FROM ELECTRICAL DRAWINGS. CONTRACTOR SHALL VERIFY EXACT ARCHITECTURAL LAYOUT ON SITE PRIOR TO CONSTRUCTION.
3. ALL WALL PENETRATIONS BETWEEN ROOMS 101 AND 102 ARE TO BE FIRESTOPPED FOR A 3 HR FIRE RATING AND SHALL BE SEALED AIR TIGHT AS PER CEC SECTION 18. REFER TO SPECIFICATION SECTION 07 84 00 FOR FIRESTOPPING REQUIREMENTS.
4. ALL CONDUIT SHOWN ON ELECTRICAL DRAWINGS SHALL BE CONSIDERED REPRESENTATIVE ONLY. FINAL CONDUIT ROUTING SHALL BE INSTALLED TO SUIT BUILDING LINES AND SHALL NOT INTERFERE WITH OTHER NEW/EXISTING EQUIPMENT.

DRAWING NOTES

1. PROVIDE AND INSTALL AMBER ALARM BEACON 2500mm ABOVE FINISHED GRADE. "PUSH-TO-TEST" PUSHBUTTON FOR ALARM BEACON SHOWN FOR REPRESENTATION ONLY. PUSHBUTTON TO BE MOUNTED ON CONTROL PANEL. REFER TO DETAIL 2 FOR WIRING DIAGRAM.
2. ELECTRICAL CONTRACTOR TO PROVIDE AND CONNECT POWER TO CONTROL PANEL. ALL OTHER CONNECTIONS WITHIN CONTROL PANELS TO BE MADE BY OTHERS. ELECTRICAL CONTRACTOR SHALL ENSURE ALL FIELD DEVICE CONDUCTOR IS PROPERLY IDENTIFIED AND SHALL ENSURE SUFFICIENT CABLE LENGTHS ARE PROVIDED WITHIN CONTROL PANELS FOR RACEWAY RUNS AND TERMINATIONS.
3. PROVIDE AND INSTALL TWO (2) DIRECT CONNECTIONS TO PUMPS 'P-1' AND 'P-2' FROM PANEL 'FMS-1'. PUMPS PROVIDED BY OTHERS. CONTRACTOR TO COORDINATE WITH MECHANICAL TRADE FOR EXACT LOCATION OF PUMPS AND PANEL 'FMS-1'.
4. CONTRACTOR SHALL RUN TECK 75 ALONG FINISHED GRADE WITHIN FENCED IN AREA. TECK TO RUN AS CLOSE TO MECHANICAL SUPPORT MEMBERS AS POSSIBLE. TECK SHALL BE RAN INDEPENDENTLY OF ANY OTHER STRUCTURES, SHALL BE MECHANICALLY PROTECTED AND SHALL BE FREE OF ANY OBSTRUCTIONS.
5. PROVIDE AND INSTALL ONE (1) 120V, 30A, NON-FUSIBLE DISCONNECT SWITCH IN NEMA-4 ENCLOSURE FOR PUMP 'P-1'. CONTRACTOR SHALL SECURELY MOUNT DISCONNECT TO TEMPORARY STRUCTURE (PROVIDED BY OTHERS) AND ENSURE 1m CLEARANCE AT FRONT OF DISCONNECT SWITCH.
6. SUPPLY AND INSTALL 2 X 20A, 1 POLE, 120V, BREAKERS FOR FMS-1. SEE DETAIL 4 FOR PANEL SCHEDULE CHANGES. PRINT UPDATED PANEL SCHEDULE AND REPLACE EXISTING.
7. CONTRACTOR SHALL RELOCATE ANY EXISTING CONDUIT AND CONDUCTOR LOCATED IN GENERAL AREA TO SUIT STRUCTURAL CHANGES, ENSURE CLASS 1, DIV. 2 HAZARDOUS CLASSIFICATION. CONTRACTOR TO MAKE GOOD ALL NEW/EXISTING OPENINGS TO WALLS, CEILINGS AND FLOORS MADE BY RELOCATION OF ANY DEVICES.

PHASING NOTES

| PHASE No. | DESCRIPTION |
|-----------|---|
| A | PROVIDE AND CONNECT POWER TO CONTROL PANEL 'FMS-T' AND PUMP 'P-T' INCLUDING ALL CONDUCTOR, CONDUIT AND DEVICES ASSOCIATED WITH TEMPORARY CONTROL PANEL AND PUMP. CONTROL PANEL 'FMS-T' SHALL BE CONNECTED TO EXISTING FIRE ALARM PANEL (CABINET #3). VERIFY ALL CONNECTIONS AND COMMISSION. |
| B | PROVIDE AND CONNECT POWER TO CONTROL PANEL 'FMS-1' BEACON LIGHT AND PUMPS 'P-1' AND 'P-2' INCLUDING ALL CONDUCTOR, CONDUIT AND DEVICES ASSOCIATED WITH CONTROL PANEL, BEACON AND PUMPS. CONTROL PANEL 'FMS-1' SHALL BE CONNECTED TO EXISTING FIRE ALARM PANEL (CABINET #3). VERIFY ALL CONNECTIONS AND COMMISSION. PUMPS AND CONTROL PANEL PROVIDED AND INSTALLED BY OTHERS. WIRING WITHIN CONTROL PANEL BY OTHERS. |
| C | DISCONNECT AND REMOVE ALL ELECTRICAL EQUIPMENT ASSOCIATED WITH PUMP 'P-T' AND TEMPORARY CONTROL PANEL 'FMS-T', INCLUDING ALL CONDUCTOR, CONDUIT AND DEVICES. DISCONNECT AND REMOVE CONDUCTOR, CONDUIT AND ASSOCIATED DEVICES FROM CONTROL PANEL 'FMS-T' TO EXISTING FIRE ALARM PANEL. VERIFY EXISTING FIRE ALARM SYSTEM AND CONTROLS. |



| Revision | Description | Date |
|----------|-----------------------|------------|
| 00 | ISSUED FOR TENDER | 2014/12/1 |
| 0A | ISSUED FOR 90% REVIEW | 2014/10/29 |

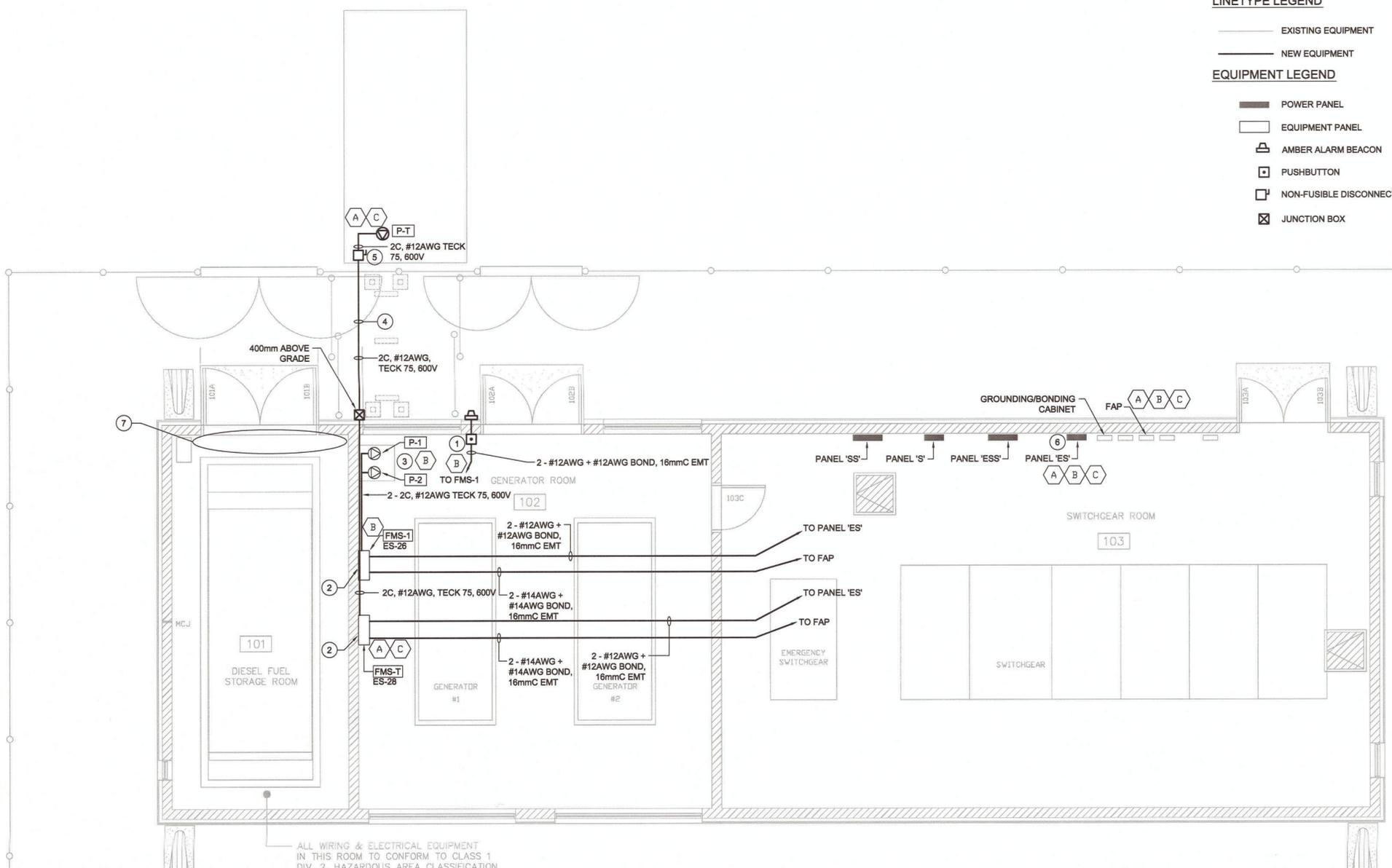
CORRECTIONAL SERVICE CANADA
BOWDEN INSTITUTION
 INNISFAIL, ALBERTA

Project title: **ELECTRICAL SUBSTATION SECONDARY TANK COMPLIANCE**

Designed by: J. GAUTHIER
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 PWOSC Project Manager: S. PYPHERS

| Project no./No. du projet | Drawing no./No. du dessin | Revision no. |
|---------------------------|---------------------------|--------------|
| R.072042.001 | E1 | 00 |

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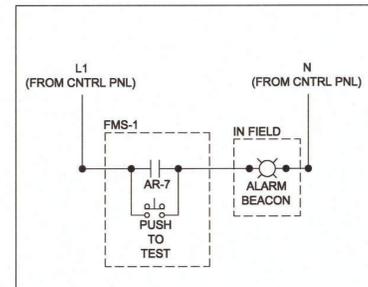


ALL WIRING & ELECTRICAL EQUIPMENT IN THIS ROOM TO CONFORM TO CLASS 1 DIV. 2, HAZARDOUS AREA CLASSIFICATION

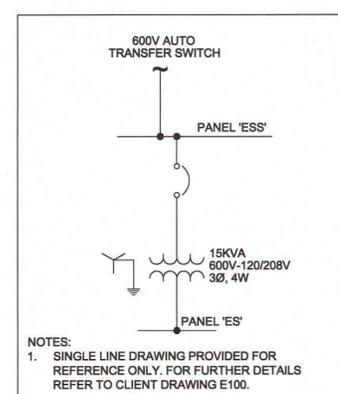
1 DIESEL TANK REPLACEMENT - ELECTRICAL LAYOUT
 SCALE: 1:50

| PANEL NAME: | VOLTAGE: | CAPACITY: | ISC: | FED FROM: |
|------------------------|-------------|------------|------|-----------------------|
| ES | 120/208 | | | PANEL-ESS |
| ROOM: 103 | IDENT. (NO) | BRKR (WPS) | SPD: | MAIN BREAKER: |
| DESCRIPTION | IDENT. (NO) | BRKR (WPS) | SPD: | DESCRIPTION |
| LIGHTS TANK RM. | 1 | 2 | | LIGHTS TUNNEL |
| LIGHTS SUB - EMERG. | 3 | 4 | | SUMP PUMP TUNNEL |
| COMPRESSOR | 5 | 6 | | SUMP PUMP TUNNEL |
| FORCED FLOW SW RM. W. | 7 | 8 | | PLUGS SWITCH RM. |
| EMERG. LIGHTS GEN. RM. | 9 | 10 | | PLUGS SW. RM + TNL |
| BATTERY CHARGER | 11 | 12 | | OUTSIDE REC. |
| FIRE ALARM | 13 | 14 | | ENGINE ECERSIZE/CTRL. |
| FORCED FLOW SW RM. E. | 15 | 16 | | SW. BOARD LIGHTS |
| AIR COMPRESSOR #2 | 17 | 18 | | CONTROLS |
| TOOL GRID | 19 | 20 | | CABLE TV |
| GEN. REC. O/S REC. | 21 | 22 | | AIR COMPRESSOR #1 |
| ELEC. RM. NORTH LIGHTS | 23 | 24 | | SPARE I.V. PLUG |
| GEN LIGHTS | 25 | 26 | 20A | MS CNTRL. PNL. FMS-1 |
| GEN LIGHTS | 27 | 28 | 20A | MS CNTRL. PNL. FMS-1 |
| GEN LIGHTS | 29 | 30 | | |
| | 31 | 32 | | |
| | 33 | 34 | | |
| | 35 | 36 | | |
| | 37 | 38 | | |
| | 39 | 40 | | |
| | 41 | 42 | | |

IDENTIFICATION: H = Heating, G = Ground Fault Breaker, R = Receptacle, V = Water Heater, MS = Miscellaneous, S = Spare, E = Space (Extra), X = Existing, L = Lighting, N = Motor, K = Locked Breaker, C = Multipole



2 ALARM BEACON - WIRING DIAGRAM
 SCALE: N.T.S.



3 PANEL 'ES' - PARTIAL SINGLE LINE DIAGRAM
 SCALE: N.T.S.

4 PANEL 'ES' - PANEL SCHEDULE
 SCALE: N.T.S.

