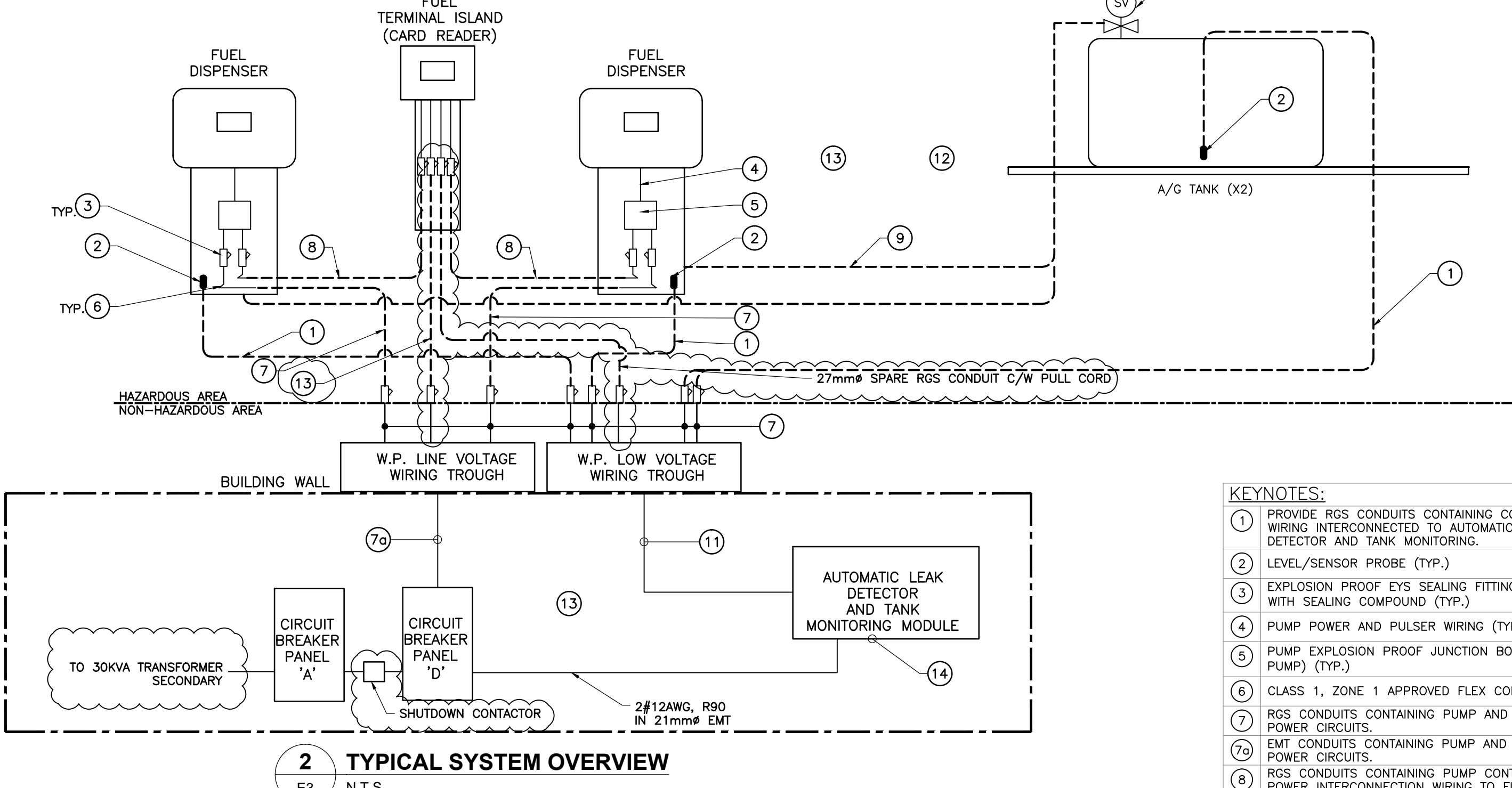


1 SINGLE LINE DIAGRAM
E3 N.T.S.

| PANEL D | | | | | | | | | | | |
|--|------------------------------------|-----------|-----------|---------------|-----------|--|-----|--|----------|-------------------------------|----------|
| MOUNTING: | SURFACE | VOLTAGE: | 120/208 V | BUS RATING: | 100A | FEEDER SIZE: 4C#8 AWG, Cu, R90 IN 21mmØ EMT | | | | | |
| FED FROM: | PANEL 'A' | PHASES: | 3 | MAIN BREAKER: | LUGS ONLY | | | | | | |
| PANEL LOC: | C-31GARAGE | WIRE: | 4 | INT. CAP.: | 10KAIC | | | | | | |
| | | CIRCUITS: | 18 | | | | | | | | |
| CCT. NO. | LOAD | | BKR SIZE | VA | | PHASE | VA | | BKR SIZE | LOAD | CCT. NO. |
| | DESCRIPTION | | | | | | | | | DESCRIPTION | |
| 1 | DISPENSER HEAD POWER (GAS) | | 15A-1P | 960 | | A | 960 | | 15A-1P | DISPENSER HEAD POWER (DIESEL) | 2 |
| 3 | *DISPENSER PUMP (GAS) | | | | | B | | | | *DISPENSER PUMP (DIESEL) | 4 |
| 5 | | | | | | C | | | | | 6 |
| 7 | CARD READER (FUEL ISLAND TERMINAL) | | 15A-1P | 200 | | A | | | | | 8 |
| 9 | **PROPANE PUMP STARTER | | | | | B | | | | | 10 |
| 11 | | | | | | C | | | | | 12 |
| 13 | | | | | | A | | | | | 14 |
| 15 | | | | | | B | | | | | 16 |
| 17 | | | | | | C | | | | | 18 |
| NOTE: * SIZE CIRCUIT BREAKER AS PER MANUFACTURER RECOMMENDATION. | | | | | | | | | | | |
| ** NOT INCLUDED IN CONTRACT | | | | | | | | | | | |

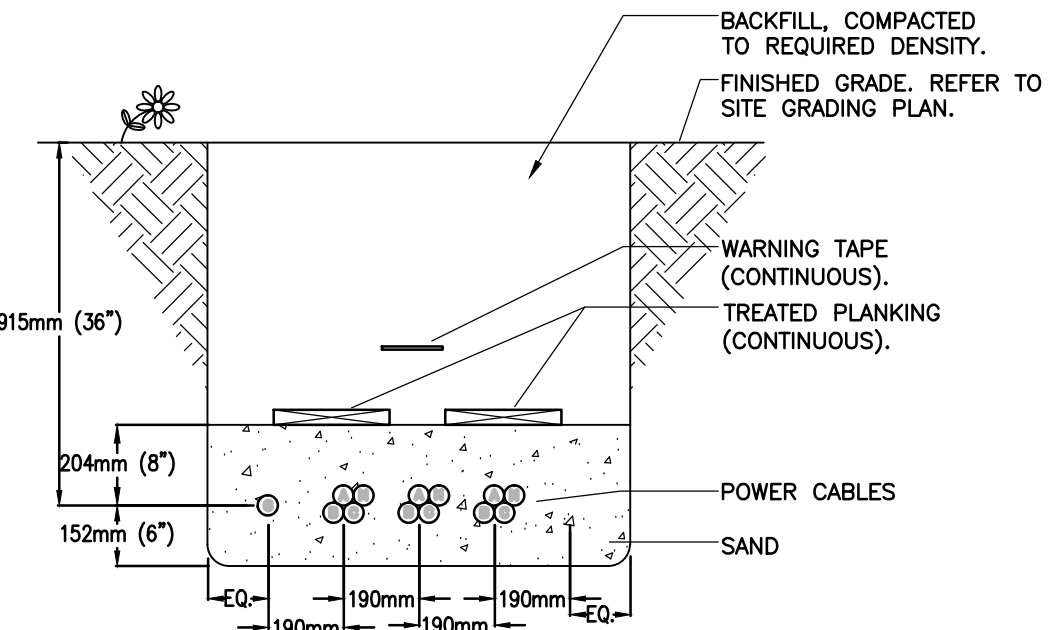
| PANEL A | | | | | | | | | | | | |
|---|---------------------|--------------------|-----|-------------------------|--|--|----|-----|---------|--|-------------|----------|
| MOUNTING: SURFACE | | VOLTAGE: 120/208 V | | BUS RATING: 225 | | FEEDER SIZE: 4C#2 AWG, Cu, R90 PLUS GROUND IN 35mmø EMT | | | | | | |
| FED FROM: EXISTING CDP THRU TRANSFORMER | | PHASES: 3 | | MAIN BREAKER: LUGS ONLY | | | | | | | | |
| PANEL LOC: C-31GARAGE | | WIRE: 4 | | INT. CAP.: 10KAIC | | | | | | | | |
| | | CIRCUITS: 30 | | | | | | | | | | |
| CCT.No | LOAD | BKR SIZE | VA | | | PHASE | VA | | | BKR SIZE | LOAD | CCT. NO. |
| | DESCRIPTION | | | | | | | | | | DESCRIPTION | |
| 1 | LIGHTING DISPENSERS | 15A-1P | 400 | | | A | | | 15A-1P* | LIGHTING PROPANE* | 2 | |
| 3 | SPARE | 15A-1P | 100 | | | B | | 200 | 15A-1P | AUTOMATIC LEAK DETECTOR AND TANK MONITOR | 4 | |
| 5 | SPARE | 15A-1P | | | | C | | | 15A-1P | SPARE | 6 | |
| 7 | SPARE | 15A-1P | | | | A | | | 15A-1P | SPARE | 8 | |
| 9 | SPARE | 15A-1P | | | | B | | | 15A-1P | SPARE | 10 | |
| 11 | SPARE | 15A-1P | | | | C | | | 15A-1P | SPARE | 12 | |
| 13 | SPARE | 15A-1P | | | | A | | | 15A-1P | SPARE | 14 | |
| 15 | SPARE | 15A-1P | | | | B | | | 15A-1P | SPARE | 16 | |
| 17 | SPARE | 15A-1P | | | | C | | | 15A-1P | SPARE | 18 | |
| 19 | | | | | | A | | | | | 20 | |
| 21 | | | | | | B | | | | | 22 | |
| 23 | | | | | | C | | | | | 24 | |
| 25 | | | | | | A | | | | | 26 | |
| 27 | | | | | | B | | | 40A-3P | PANEL 'D' | 28 | |
| 29 | | | | | | C | | | | | 30 | |
| NOTE: * NOT INCLUDED IN CONTRACT | | | | | | | | | | | | |

| LUMINAIRE SCHEDULE | |
|--------------------|---|
| TYPE | DESCRIPTION |
| A | LED AREA LIGHTING C/W 60 LED'S, TYPE II OPTIC, 120V, 4300K COLOR TEMPERATURE, COLOR BLACK FINISH AND BUILT-IN PHOTOCCELL. MOUNTING SHALL BE DIRECT ARM. MOUNTING POLE SHALL BE 6.1m X 102mm X 3mm, SINGLE DIRECT MOUNT. 10 YEAR WARRANTY ON LED SYSTEM. |

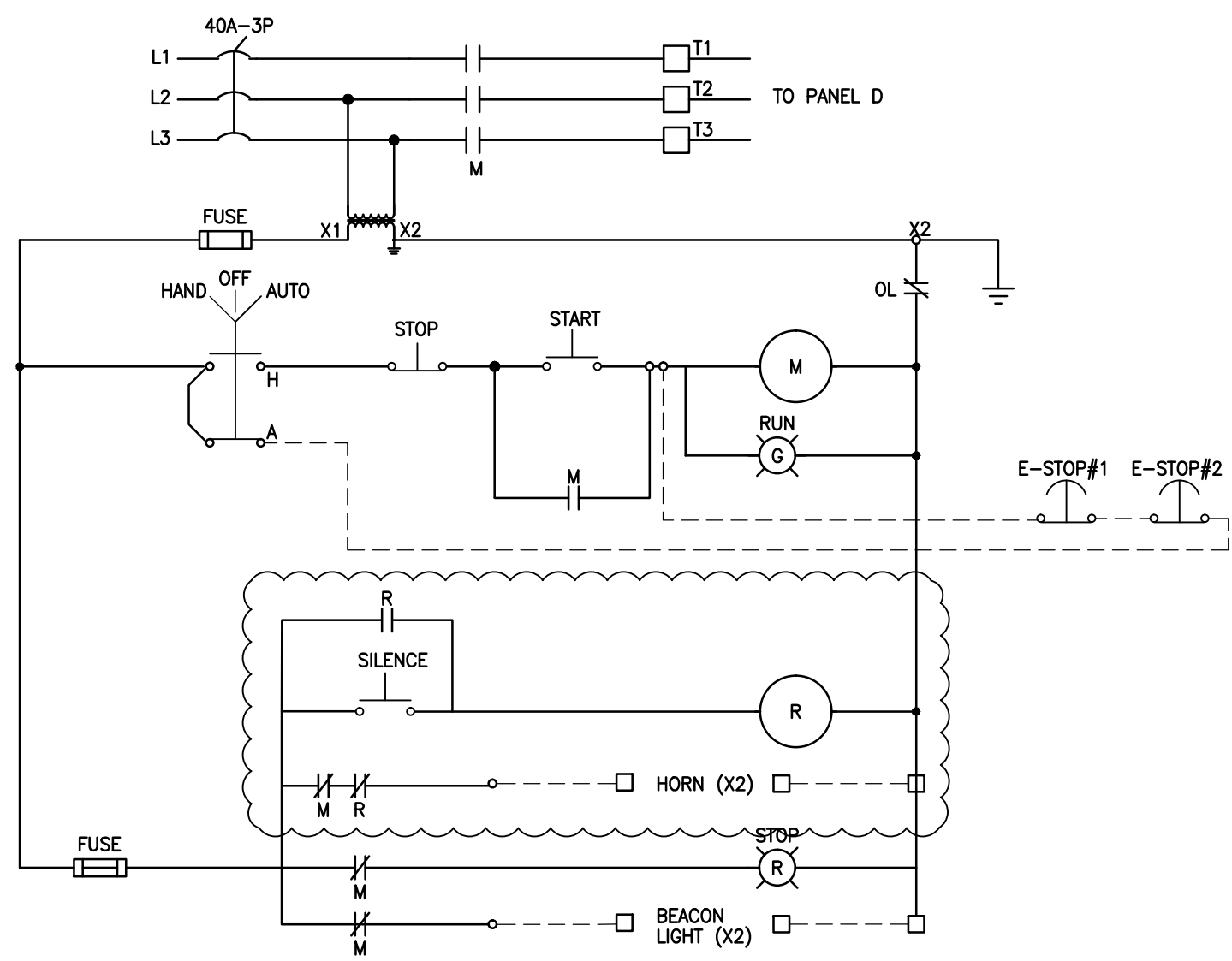


2 TYPICAL SYSTEM OVERVIEW
E3 N.T.S.

- KEYNOTES:**
- PROVIDE RGS CONDUITS CONTAINING CONTROL WIRING INTERCONNECTED TO AUTOMATIC LEAK DETECTOR AND TANK MONITORING.
 - LEVEL/SENSOR PROBE (TYP.)
 - EXPLOSION PROOF EYS SEALING FITTING FILLED WITH SEALING COMPOUND (TYP.)
 - PUMP POWER AND PULSER WIRING (TYP.)
 - PUMP EXPLOSION PROOF JUNCTION BOX (UNDER PUMP) (TYP.)
 - CLASS 1, ZONE 1 APPROVED FLEX CONDUIT (TYP.)
 - RGS CONDUITS CONTAINING PUMP AND SYSTEM POWER CIRCUITS.
 - EMT CONDUITS CONTAINING PUMP AND SYSTEM POWER CIRCUITS.
 - RGS CONDUITS CONTAINING PUMP CONTROL AND POWER INTERCONNECTION WIRING TO FUEL ISLAND TERMINAL (CARD READER).
 - PROVIDE CONDUITS CONTAINING CONTROL WIRING INTERCONNECTED TO PUMP DISPENSER.
 - SOLENOID VALVE
 - LOW VOLTAGE WIRING IN EMT CONDUITS. PROVIDE WIRING AS MANUFACTURER'S RECOMMENDATION.
 - ALL WIRING IN HAZARDOUS AREA TO BE RGS.
 - PROVIDE WIRING AS PER MANUFACTURER RECOMMENDATION.
 - CONTRACTOR TO SUPPLY AND INSTALL COMPONENTS TO INCORPORATE INDIVIDUAL EQUIPMENT SHUTDOWN CONTROL IN THE LEAK MONITORING SYSTEM. ON DETECTION OF LEAKAGE IN DISPENSER SUMPS ONLY THOSE DISPENSER SHALL BE SHUTDOWN. DISPENSERS WHERE NO LEAKAGE IS DETECTED SHALL REMAIN IN OPERATIONAL.



3 TYPICAL TRENCHING DETAIL
E3 N.T.S.



- SHUTDOWN SEQUENCE OF OPERATION:**
- WHEN EMERGENCY PUSHBUTTON IS PUSHED, THE MAGNETIC CONTACTOR 'M' WILL DE-ENERGIZED, THE PANEL 'D' WILL SHUTDOWN AND THE BEACON LIGHT BEGINS FLASHING.
 - PULL PUSHBUTTON TO RESUME TO NORMAL OPERATION.

4 TYPICAL E-STOP SHUTDOWN SCHEMATIC
E3 N.T.S.

Public Works and Government Services Canada

Travaux publics et Services gouvernementaux Canada

REAL PROPERTY SERVICES
Western Region
SERVICES IMMOBILIERS
Région de l'ouest

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Association of Professional Engineers & Geoscientists of Saskatchewan

CERTIFICATE OF AUTHORIZATION
WSP CANADA INC.
Number C0868

Permission to Consult held by:

Discipline: ELECTRICAL St. Reg. No. 7577 Signature: _____

DO NOT SCALE DRAWINGS

| Revision/ | Description/Description | Date/Date |
|-----------|--------------------------|------------|
| 2 | ISSUED FOR ADDENDUM NO.1 | 2014/12/15 |
| 1 | ISSUED FOR TENDER | 2014/10/28 |
| 0 | ISSUED FOR TENDER | 2014/09/23 |

Client/client

PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

125-32ND STREET WEST
PRINCE ALBERT, SASKATCHEWAN

Project title/Titre du projet
SASKATCHEWAN PENITENTIARY
15TH STREET WEST
PRINCE ALBERT, SASKATCHEWAN

NEW FUEL TANKS AT SASKATCHEWAN PENITENTIARY

Approved by/Approuvé par
H.P.

Designed by/Concept par
D.G.

Drawn by/Dessiné par
O.N./D.G.

PWGSC Project Manager/Administrateur de Projets TPSCG
LINDA E. KAMINSKI

PWGSC, Architectural and Engineering Resources Manager/
Ressources Architectural et de Directeur d'Ingénierie, TPSCG

Client/client
PWGSC

Drawing title/Titre du dessin

SINGLE LINE DIAGRAM AND EQUIPMENT AND PANEL SCHEDULES

| Project No./No. du projet | Sheet/Feuille | Revision no./La Révision no. |
|---------------------------|---------------|------------------------------|
| R.059705.001 | E3 | 2 |

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