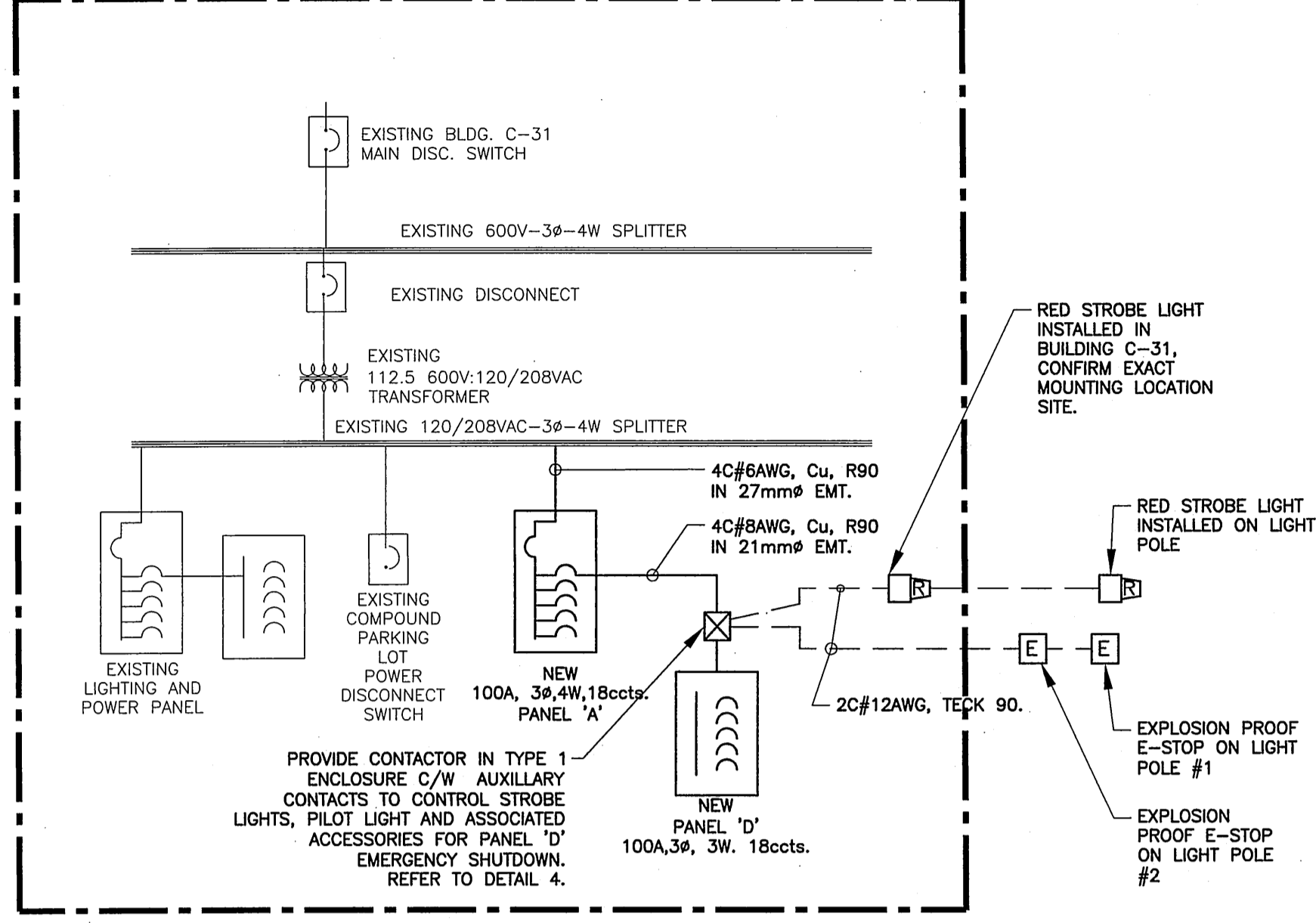
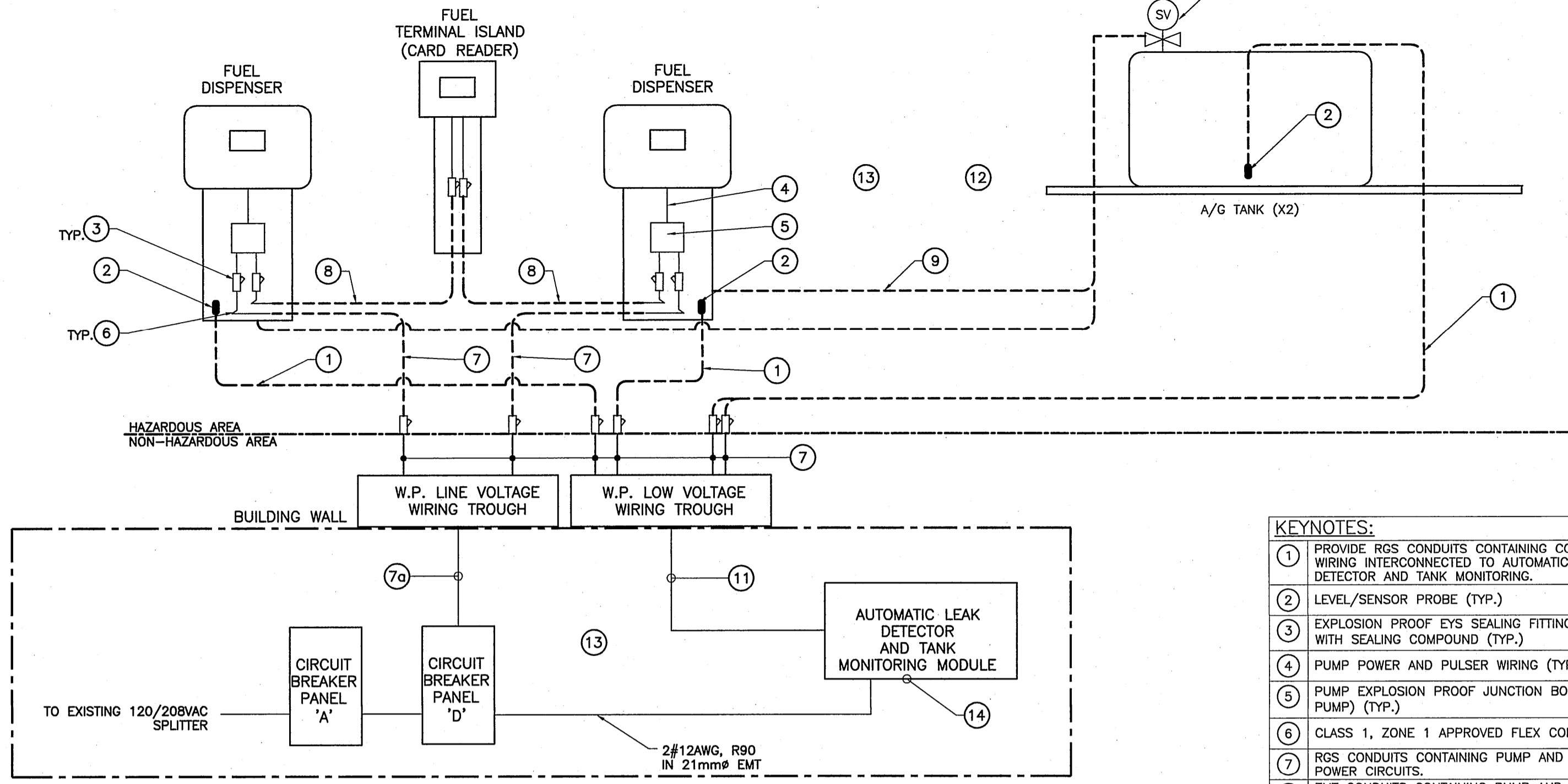


EXISTING BLDG. C-31 ELECTRICAL ROOM



1 SINGLE LINE DIAGRAM
E3 N.T.S.

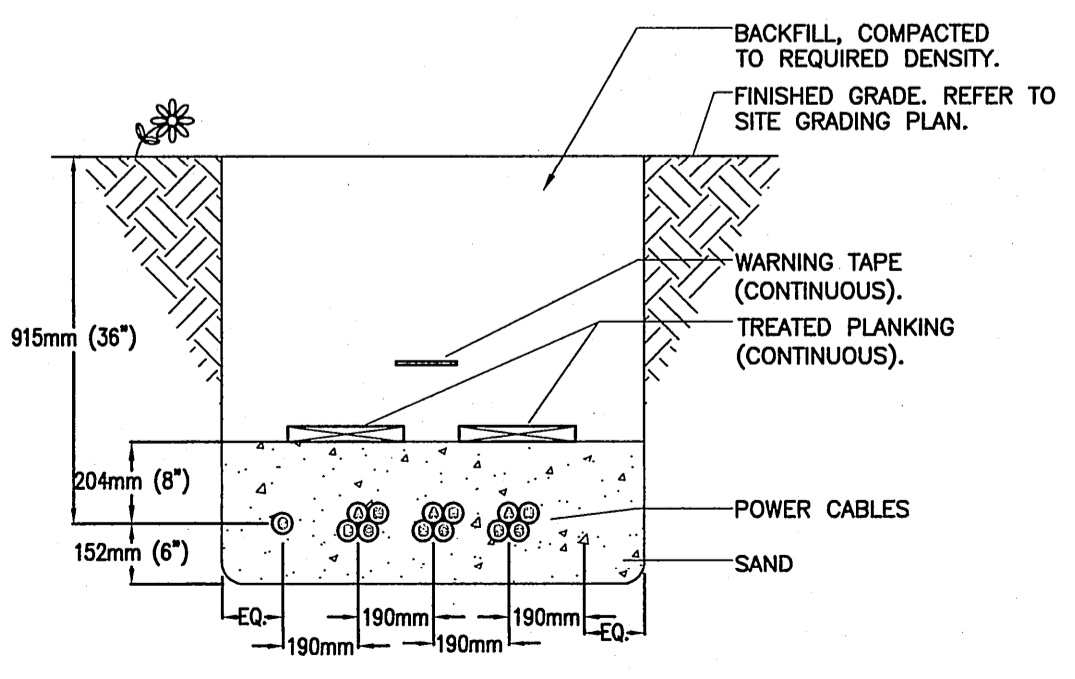


2 TYPICAL SYSTEM OVERVIEW
E3 N.T.S.

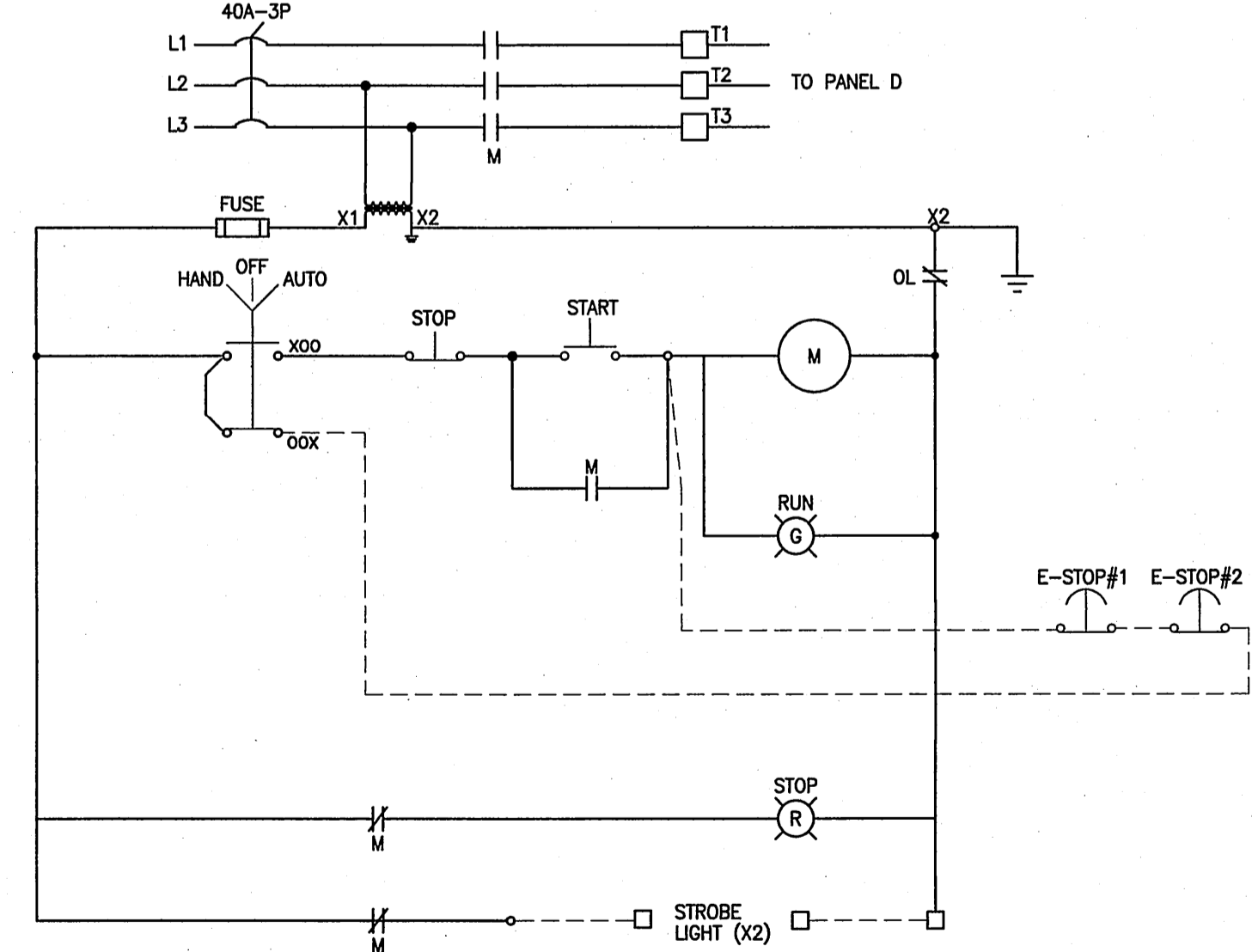
- KEYNOTES:**
- 1 PROVIDE RGS CONDUITS CONTAINING CONTROL WIRING INTERCONNECTED TO AUTOMATIC LEAK DETECTOR AND TANK MONITORING.
 - 2 LEVEL/SENSOR PROBE (TYP.)
 - 3 EXPLOSION PROOF EYS SEALING FITTING FILLED WITH SEALING COMPOUND (TYP.)
 - 4 PUMP POWER AND PULSER WIRING (TYP.)
 - 5 PUMP EXPLOSION PROOF JUNCTION BOX (UNDER PUMP) (TYP.)
 - 6 CLASS 1, ZONE 1 APPROVED FLEX CONDUIT (TYP.)
 - 7 RGS CONDUITS CONTAINING PUMP AND SYSTEM POWER CIRCUITS.
 - 8 EMT CONDUITS CONTAINING PUMP AND SYSTEM POWER CIRCUITS.
 - 9 RGS CONDUITS CONTAINING PUMP CONTROL AND POWER INTERCONNECTION WIRING TO FUEL ISLAND TERMINAL (CARD READER).
 - 10 PROVIDE CONDUITS CONTAINING CONTROL WIRING INTERCONNECTED TO PUMP DISPENSER.
 - 11 SOLENOID VALVE
 - 12 LOW VOLTAGE WIRING IN EMT CONDUITS. PROVIDE WIRING AS MANUFACTURER'S RECOMMENDATION.
 - 13 ALL WIRING IN HAZARDOUS AREA TO BE RGS.
 - 14 PROVIDE WIRING AS PER MANUFACTURER RECOMMENDATION.
 - 15 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.

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-31		WIRE:		4		INT. CAP.:		10KAIC					
				CIRCUITS:		18									
LOAD															
CCT.No	DESCRIPTION					BKR SIZE	VA		PHASE		VA		BKR SIZE	LOAD DESCRIPTION	CCT. NO.
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:		100A		FEEDER SIZE:		4C#6 AWG, Cu, R90 IN	
FED FROM:		EXISTING SPLITTER		PHASES:		3		MAIN BREAKER:		60A-3P					
PANEL LOC:		BUILDING C-31		WIRE:		4		INT. CAP.:		10KAIC					
				CIRCUITS:		18									
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	E-STOP CIRCUIT		15A-1P		100	B		200	15A-1P	AUTOMATIC LEAK DETECTOR AND TANK MONITOR		4			
5	RED BEACON CIRCUIT		15A-1P		100	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						14			
15	SPARE		15A-1P			B			40A-3P	PANEL 'D'		16			
17	SPARE		15A-1P			C						18			
NOTE: * NOT INCLUDED IN CONTRACT															



3 TYPICAL TRENCHING DETAIL
E3 N.T.S.



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

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

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 PHOTOCELL. MOUNTING SHALL BE DIRECT ARM. MOUNTING POLE SHALL BE 6.1m X 102mm X 3mm, SINGLE DIRECT MOUNT. 10 YEAR WARRANTY ON LED SYSTEM.

ISSUED FOR
TENDER ONLY
NOT FOR CONSTRUCTION

DO NOT SCALE DRAWINGS

1	ISSUED FOR TENDER	2014/10/28
0	ISSUED FOR TENDER	2014/09/28
Revision/	Description/Description	Date/Date

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 TPSSC
LINDA E. KAMINSKI

PWGSC Architectural and Engineering Resources Manager/
Ressources Architectural et de Directeur d'ingénierie, TPSSC

Client/client
PWGSC

Drawing title/Titre du dessin

**SINGLE LINE DIAGRAM AND
EQUIPMENT
AND PANEL SCHEDULES**