

1 SINGLE LINE DIAGRAM
E3 N.T.S.

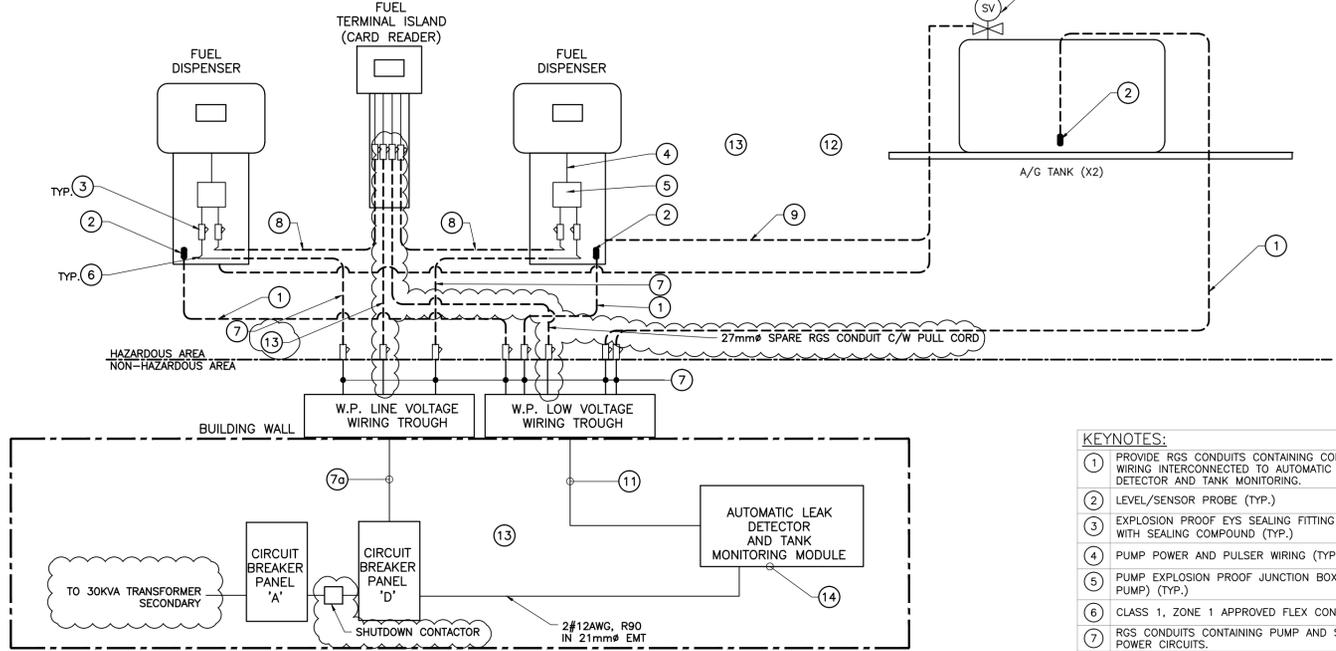
PANEL D									
MOUNTING:	SURFACE	VOLTAGE:	120/208 V	BUS RATING:	100A	FEEDER SIZE:	4C#8 AWG, Cu, R90 IN 21mm# EMT		
FED FROM:	PANEL 'A'	PHASES:	3	MAIN BREAKER:	LUGS ONLY				
PANEL LOC:	C-31GARAGE	WIRE:	4	INT. CAP.:	10KAIC				
		CIRCUITS:	18						
CCT. No.	LOAD DESCRIPTION	BKR SIZE	VA	PHASE	VA	BKR SIZE	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:	225 LUGS ONLY	FEEDER SIZE:	4C#2 AWG, Cu, R90 PLUS GROUND IN 35mm# 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 DESCRIPTION	BKR SIZE	VA	PHASE	VA	BKR SIZE	LOAD DESCRIPTION	CCT. NO.	
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	

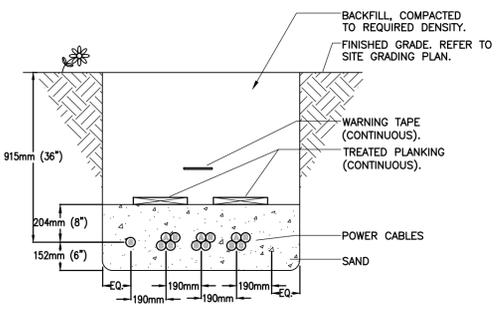
NOTE: * NOT INCLUDED IN CONTRACT

LUMINAIRE SCHEDULE DESCRIPTION	
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.

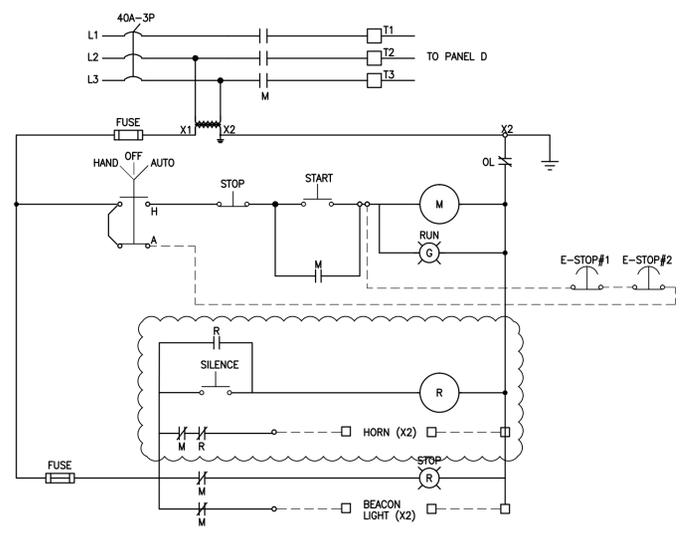


2 TYPICAL SYSTEM OVERVIEW
E3 N.T.S.

- 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.

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

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

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Drawn by/Dessiné par
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Drawing title/Titre du dessin

SINGLE LINE DIAGRAM AND EQUIPMENT AND PANEL SCHEDULES

Project No./No. du projet R.059705.001	Sheet/Feuille E3	Revision no./Lo Révision no. 2
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