NEW PANEL 'GP'

TYPE: SIEMENS OR EQUAL
SERVICE: 208/ 120 V, 3ph, 4w
POLES: 24
LOCATION: WALL
SURFACE X FLUSH

BUS AMPACITY: 100A
MAINS: 60A MCB
NEUTRAL: FULL
AIC: 14,000
NEMA 1 X NEMA 3R

UNLESS OTHERWISE NOTED, SIZE CONDUITS PER NEC, BASE ON TYPE THWN/XHHW

CKT. KVA A	CKT. KVA B	CKT. KVA C	CB TRIP	COND	WIRE	LOAD NAME	POLE
0.5			15/1	3/4	#12	EXIST VEEDER ROOT	1
	0.5		20/1			EXIST GAS BOY	3
		1.6				DIESEL PUMP P001	5
1.6						UNLEADED PUMP P002	7
	0.5					CONTACTOR	9
		0.5				NEW GASBOY	11
0.2						RECEPT	13
						SPARE	15
							17
							19
						SPACE	21
							23
2.3	1.0	2.1	TOTAL CONNECTED KVA				

POLE	LOAD NAME	WIRE	COND	CB TRIP	CKT. KVA A	CKT. KVA B	CKT. KVA C
2	LIGHTING EXTERIOR	#12	3/4	20/1	0.3		
4	DISPENSER D-002	#10		30/1		1.9	
6	DISPENSER D-003						1.9
8	DISPENSER D-001				1.9		
10	DISPENSER D-004					1.9	
12	SPACE						
14							
16							
18							
20							
22							
24							
					2.2	3.8	1.9

Load Summary Per NEC Art 220	A	B	C
Continuous KVA @ 125%	0.38	0.00	0.00
Non-Continuous KVAD (DF@Right)	4.18	4.80	2.40
Motor KVA @ 25%	0.00	0.00	2.00
Total Phase KVA Per NEC	4.56	4.80	4.40
Total Phase Amps Per NEC	38	40	37
Total KVA Load Per NEC	13.76		

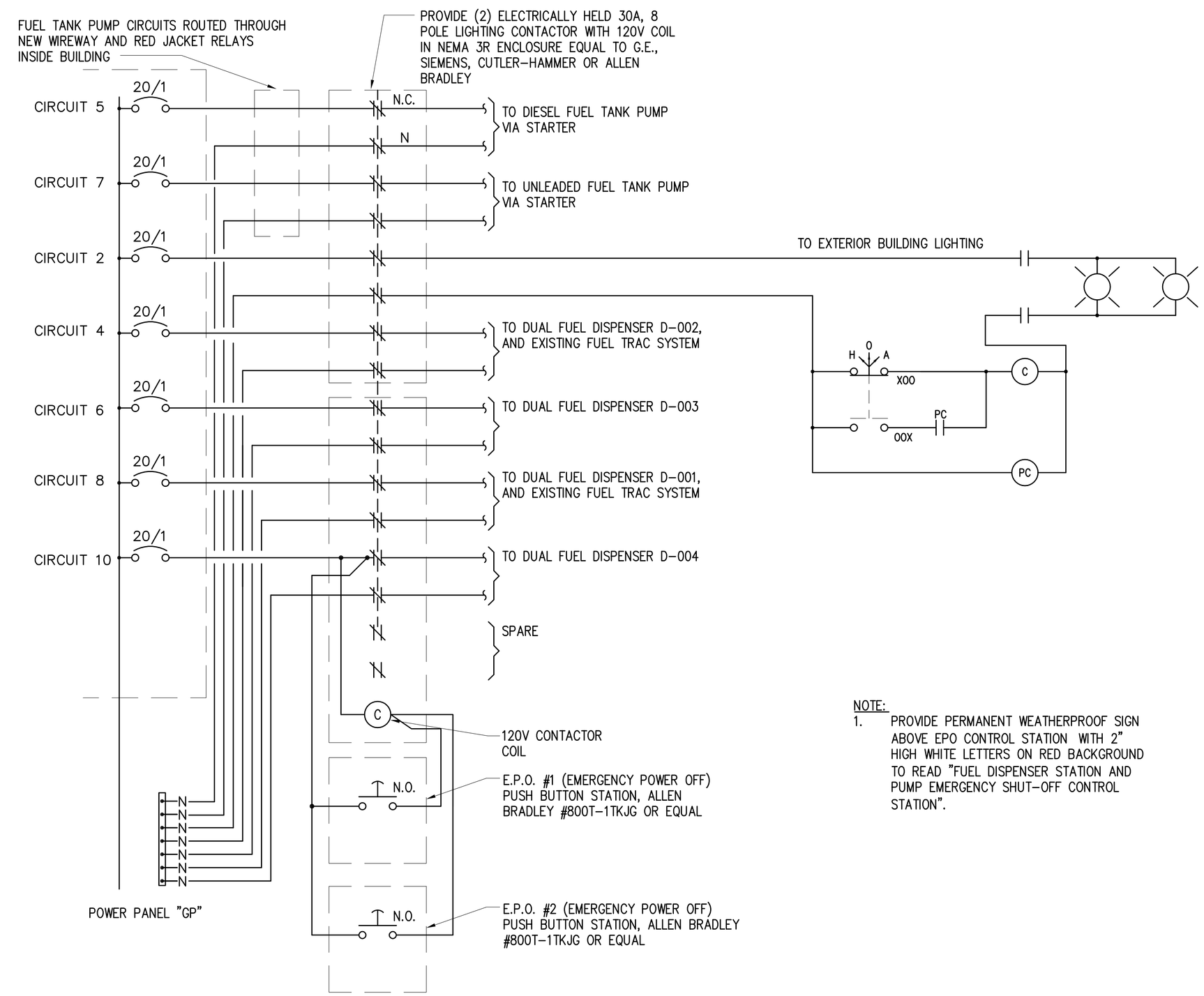
DEMAND FACTORS AS NOTED
1. 220-11 (Lighting)
2. 220-13 (Recept)
3. 220-15 (Heat)
4. 220-20 (Kitchens)
5. 220-21 (Non-Coincident)
6. 220-34 (Schools)
7. 220-35 (Exist. Bldg.)
8. 550-22 (Mobile Park)
9. 551-44 (RV Parks)
10. 630-11 (Welders)

ELECTRICAL CALCULATIONS

FUEL DISPENSERS X 100%	=	4.0 KVA
FUEL PUMPS X 100%	=	3.2
LIGHTING X 125%	=	0.5
FUEL MANAGEMENT X 100%	=	1.0
VEEDER ROOT X 100%	=	0.5
SPARE CAPACITY 25%	=	2.3
TOTAL LOAD	=	11.5 KVA

11.5kVA / 208V-3 PHASE = 31.9 AMPS

PROVIDE NEW 40 AMP SERVICE FOR FUEL TANK INSTALLATION

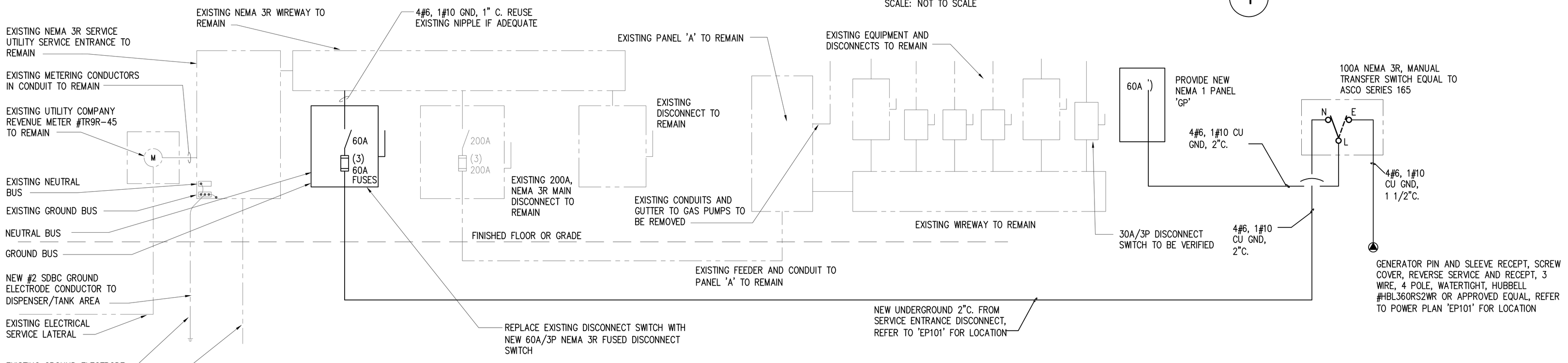


NOTE:
1. PROVIDE PERMANENT WEATHERPROOF SIGN ABOVE EPO CONTROL STATION WITH 2" HIGH WHITE LETTERS ON RED BACKGROUND TO READ "FUEL DISPENSER STATION AND PUMP EMERGENCY SHUT-OFF CONTROL STATION".

E.P.O. STATION WIRING SCHEMATIC

SCALE: NOT TO SCALE

1



ELECTRICAL ONE LINE DIAGRAM

NOT TO SCALE

RICHEY BLVD. FUEL TANK REPLACEMENT

PIMA COUNTY
FACILITIES MANAGEMENT
150 WEST CONGRESS, 5TH FL.
TUCSON, AZ 85701

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ARCHITECTURE
ENGINEERING
CONSTRUCTION MANAGEMENT

Revisions

Description	Date
1	
2	
3	
4	
5	
6	

Drawn: RLA
Checked: –
Issue Date: 12-17-2010

Drawing Title
ELECTRICAL ONE LINE, SCHEMATIC & PANEL

Sheet Number
EP701

M3PN 100100

Last Update: 7.1.2011

File: P:\2010\100100\Reference\Bim\100100 EP701.dwg LAST UPDATE:7/1/2011 11:12 AM BY: AN1761
File: P:\2010\100100\Electrical\Drawings\100100 EP701.dwg LAST UPDATE: DEC 20, 2010 @ 9:14 AM BY: ro47 LAST REV: PLOT SCALE: 1:1