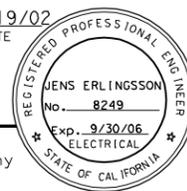




DIST	COUNTY	ROUTE	KILOMETER TOTAL PROJECT	POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
04	SF	80	13.2/13.9		91R2	1204

12/19/02
 REGISTERED ELECTRICAL ENGINEER DATE



12-6-04
 PLANS APPROVAL DATE
 PB POWER, Inc.
 A Parsons Brinckerhoff Company
 303 Second St., Suite 700N
 San Francisco, CA 94107-1317

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 Caltrans now has a web site! To get to the web site, go to <http://www.dot.ca.gov>

SYMBOLS

(See ES-1A and ES-1B for Additional Standard Symbols)

LAYOUT PLAN

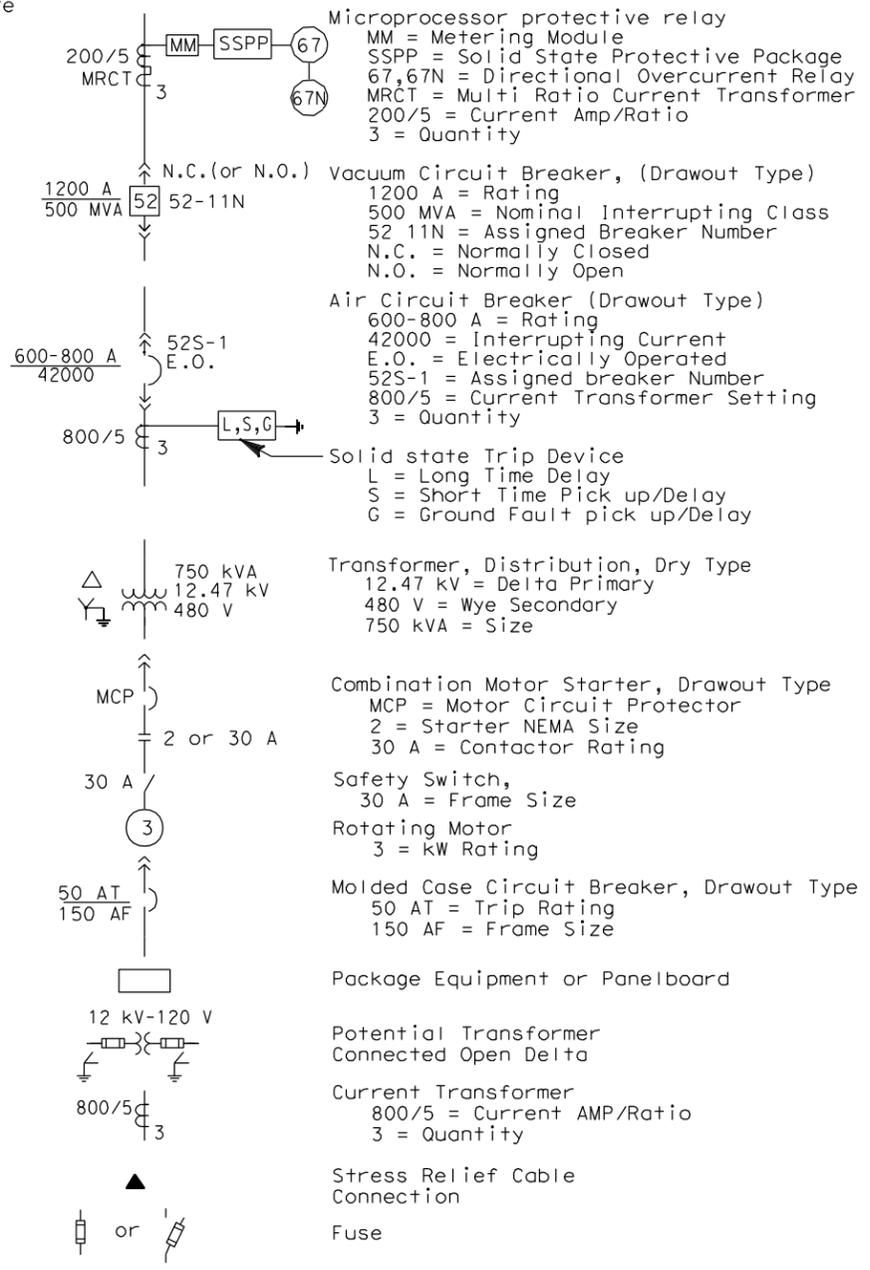
- Barrier Pull Box, for type and size, see Pull Box Schedule
- Pull Box PB-2A for type and size, see Pull Box Schedule
- Conduit Coupling
- Equipment or Material Designation
A=Sequential description
- Sheet Notes, applicable only to the Drawing
1=Sequential number
- Project Notes, Applicable for all Drawings
1=sequential number
- Junction Box, Conduit Fitting
- Electrical Equipment or Indicated on Plan Drawings
- Pole Mounted Lighting Fixture- See Lighting Pole Schedule for Type and Quantity
- Fluorescent Lighting Fixture
- Compact Fluorescent Lighting Fixture, Ceiling Mounted or main cable and suspender base metal halide lighting fixture
- Compact Fluorescent Lighting Fixture Wall Mounted
- Soffit Lighting Fixture or tower marker light
- Navigation Channel Marker Light - Green Color
- Navigation Pier Marker Light - Red Color
- Aviation Lighting
- Fog Detector
- Fog Horn
- Pole Flood Light
- Single Receptacle, 20 A, 125 V, Straight blade, with deep single gang weatherproof and threaded cap
- Duplex Receptacle, 125 V, 20 A
MH=450 mm above floor unless noted
GFCI=Ground Fault Circuit Interrupter
WP=Weatherproof
- Single Pole Switch, 120/277 V, 20 A
a - indicates Fixtures controlled
WP - Weatherproof Cover
MH - 1400 mm unless noted
- Three-way switch, 120/277 V, 20 A or 30 A
a - indicates Fixtures controlled
WP - indicates Weatherproof Cover
MH - 1400 mm unless noted
- Four-way switch, 120/277 V, 20 A
a - indicates Fixtures controlled
WP - indicates Weatherproof Cover
MH - 1400 mm unless noted
- Disconnect Switch
30 A-Frame size
- Conduit turned up
- Conduit turned down
- Conduit or Cable run, exposed
- Conduit run concealed in wall, concrete barrier, slab or routed underground duct bank
- Combination Expansion - Deflection fittings
- Flexible Conduit
- Cable Tray
- Cables or Conduit down to Equipment (see plan for conduit number)

- Call Box, State furnished
- Ground Bare Copper Wire, Stranded
- Cable To Cable Exothermic Type Ground Connections
- Cable Ground Connection to Equipment, Compression Type
- Cable with Pigtail Ground Connections (see plan for length)

TRAFFIC OPERATIONS SYSTEMS (TOS)

- CCTV Camera (Mounted at Lighting Pole)
- Changeable Message Sign
- Preformed Loops
- Microwave Vehicle Detection Sensor (Mounted at Lighting Pole)
- Ramp Meter Signal

SINGLE LINE DIAGRAM



REQUEST FOR INFORMATION NOT ADDRESSED IN THIS CCO REMAIN IN FORCE

MARK	DATE	DESCRIPTIONS	BY	CH'D	CCO#
2	09/18/09	TOWER UTILITY PANELS	JS	FW	70
1	02/19/08	ELECTRICAL MODIFICATIONS	MP	RR	42

CONTRACT CHANGE ORDER NO. _____
 SHEET _____ OF _____

ELEMENTARY/CONNECTION DIAGRAMS

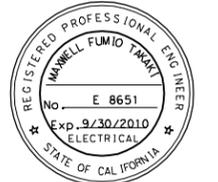
- Signal Cable with Shield
- Contact, Normally open
- Contact, Normally Closed
- Relay, Mechanical
M = Motor
C = Contactor
42 = Running Circuit Breaker
X or Y = Auxiliary
R = Industrial
TD = Time Delay
PEC = Photo Electric Control
- Motor Starter Overload Relay Thermal Bimetallic Element (OL-Overload)
- ON/OFF Switch
- DC Batteries
- AC/DC Inverter (Battery Charger/Rectifier)
- End Resistor and Capacitor
- Photoelectric Sensor
- Communication Cable Noise Suppressor
- Terminal Block
- Duplex Receptacle
- Cabinet Fluorescent Light

DEVICE NUMBER DEFINITIONS

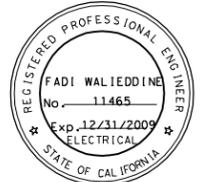
- 27B 12.47 kV Bus Undervoltage Relay
- 27D DC Undervoltage Relay
- 27F Feeder Undervoltage Relay
- 27UV 480 V Bus Undervoltage Relay
- 42 Running Circuit Breaker
- 43/R Manual Transfer / Remote
- 43/L Manual Transfer / Local
- 49 Thermal Relay
- 50 Instantaneous Overcurrent Relay
- 51 AC Time Overcurrent Relay
- 51/51N Phase and Ground Fault Time Overcurrent Relay
- 52 AC Circuit Breaker
- 67 AC Directional Overcurrent Relay
- 67N AC Directional Ground Overcurrent Relay
- 86 Lock-Out Relay
- 88 Auxiliary Motor

ELECTRICAL SYMBOLS

NO SCALE



FOR REVISION ONLY



FOR REVISION ONLY

REVISIONS: 01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100
 DESIGNED BY: BEHZAD GOLEMOHAMMADI
 CHECKED BY: _____
 DESIGN OVERSIGHT: _____
 STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 Caltrans

FOR REDUCED PLANS ORIGINAL SCALE 15 IN MILLIMETERS