| DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No | TOTAL SHEETS |
|---|---|---|---|---|---|
| 04 | SF | 80 | 13.2/13.9 | 386 R2 | 1204 |

Jens Erlingsson 12/19/02
REGISTERED ELECTRICAL ENGINEER DATE

12-6-04
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER JENS ERLINGSSON No. 8249 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

PB POWER, Inc.
A Parsons Brinckerhoff Company
303 Second St., Suite 700N
San Francisco, CA 94107-1317

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Caltrans Metric

| REQUEST FOR INFORMATION NOT ADDRESSED IN THIS CCO REMAIN IN FORCE | | | | | |
|---|---|---|---|---|---|
| 2 | 06/12/08 | SERVICE PLATFORM ELECTRICAL CHANGES | RR RY | RG MP | 55 |
| 1 | 03/04/08 | BARRIER MODIFICATIONS | JS BM | RG SE | 44 |
| MARK | DATE | DESCRIPTIONS | BY | CH'D | CCO# |
| | | REVISIONS | | | |

CONTRACT CHANGE ORDER NO._____
SHEET_____ OF_____

REGISTERED PROFESSIONAL ENGINEER FADI WALIEDDINE No. 11465 Exp. 12/31/2009 ELECTRICAL STATE OF CALIFORNIA

FOR REVISION ONLY

## CONDUIT DATA

| Conduit No | Reference | Size | Type | Total Fill (mm²) | Allowable Fill (mm²) | Included Cable No. | Conductor Type |
|---|---|---|---|---|---|---|---|
| 3702 | E-284, E-275 | 78 | RGS-PVC coated conduit | 436.32 | 1935.24 | UP210-1B-1B | 2 + 1 gnd #8,#10, 600 V, RHH/RHW insulation |
| | | | | | | UP210-1B-2 | 2 + 1 gnd #12,#12, 600 V, RHH/RHW insulation |
| | | | | | | Pull rope | Soft-Fiber Polyester |
| 3703 | E-284 | 53 | RGS-PVC coated conduit | 725.01 | 879.42 | UP210-1B-3 | 2 + 1 gnd #8,#10, 600 V, RHH/RHW insulation |
| | | | | | | UP210-1B-4 | 2 + 1 gnd #12,#12, 600 V, RHH/RHW insulation |
| | | | | | | Pull rope | Soft-Fiber Polyester |
| | | | | | | UP210-1B-3C | 2 + 1 gnd #8,#10, 600 V, RHH/RHW insulation |
| 3704 | E-284, E-285 | 53 | RGS-PVC coated conduit | 436.32 | 879.42 | UP210-1B-4 | 2 + 1 gnd #12,#12, 600 V, RHH/RHW insulation |
| | | | | | | UP210-1B-3C | 2 + 1 gnd #8,#10, 600 V, RHH/RHW insulation |
| | | | | | | UP210-1B-3A | 2 + 1 gnd #8,#10, 600 V, RHH/RHW insulation |
| | | | | | | Pull rope | Soft-Fiber Polyester |
| 3705 | E-284, E-275 | 53 | RGS-PVC coated conduit | 315.59 | 879.42 | UP210-1B-3B | 2 + 1 gnd #8,#10, 600 V, RHH/RHW insulation |
| | | | | | | UP210-1B-4 | 2 + 1 gnd #12,#12, 600 V, RHH/RHW insulation |
| | | | | | | Pull rope | Soft-Fiber Polyester |
| | | | | | | UP210-1B-3C | 2 + 1 gnd #8, #10, 600 V, RHH/RHW insulation |
| 3706 | E-284, E-275 | 53 | RGS-PVC coated conduit | 241.67 | 879.42 | UP210-1B-5 | 2 + 1 gnd #8, #10, 600 V, RHH/RHW insulation |
| | | | | | | UP210-1B-5C | 2 + 1 gnd #8, #10, 600 V, RHH/RHW insulation |
| | | | | | | UP210-1B-6 | 2 + 1 gnd #12, #12, 600 V, RHH/RHW insulation |
| 3707 | E-284, E-275 | 53 | RGS-PVC coated conduit | 241.67 | 879.42 | UP210-1B-6 | 2 + 1 gnd #12, #12 600 V, RHH/RHW insulation |
| | | | | | | UP210-1B-5A | 2 + 1 gnd #8, #10, 600 V, RHH/RHW insulation |
| | | | | | | UP210-1B-5C | 2 + 1 gnd #8, #10, 600 V, RHH/RHW insulation |
| 3708 | E-284, E-275 | 53 | RGS-PVC coated conduit | 241.67 | 879.42 | UP210-1B-5B | 2 + 1 gnd #8, #10, 600 V, RHH/RHW insulation |
| | | | | | | UP210-1B-5C | 2 + 1 gnd #8, #10, 600 V, RHH/RHW insulation |
| | | | | | | UP210-1B-6 | 2 + 1 gnd #12, #12, 600 V, RHH/RHW insulation |
| 3800 | E-284, E-275 | 53 | RGS-PVC coated conduit | 387.11 | 879.42 | UP210-1B-8 | 2 + 1 gnd #12,#12, 600 V, RHH/RHW insulation |
| | | | | | | Pull rope | Soft-Fiber Polyester |
| | | | | | | UP210-1B-7 | 2 + 1 gnd #8,#10, 600 V, RHH/RHW insulation |
| | | | | | | UP210-1B-7C | 2 + 1 gnd #8,#10, 600 V, RHH/RHW insulation |
| 3801 | E-284 | 53 | RGS-PVC coated conduit | 483.34 | 879.42 | UP210-1B-8 | 2 + 1 gnd #12,#12, 600 V, RHH/RHW insulation |
| | | | | | | Pull rope | Soft-Fiber Polyester |
| | | | | | | UP210-1B-7A | 2 + 1 gnd #8,#10, 600 V, RHH/RHW insulation |
| | | | | | | UP210-1B-7C | 2 + 1 gnd #8,#10, 600 V, RHH/RHW insulation |
| 3802 | E-284, E-275 | 78 | RGS-PVC coated conduit | 436.32 | 1935.24 | Pull rope | Soft-Fiber Polyester |
| | | | | | | UP210-1B-8 | 2 + 1 gnd #12,#12, 600 V, RHH/RHW insulation |
| | | | | | | UP210-1B-7C | 2 + 1 gnd #8,#10, 600 V, RHH/RHW insulation |
| | | | | | | UP210-1B-7B | 2 + 1 gnd #8,#10, 600 V, RHH/RHW insulation |
| 3803 | E-284, E-275 | 53 | RGS-PVC coated conduit | 725.01 | 879.42 | UP210-1B-10 | 2 + 1 gnd #12,#12, 600 V, RHH/RHW insulation |
| | | | | | | Pull rope | Soft-Fiber Polyester |
| | | | | | | UP210-1B-9 | 2 + 1 gnd #8,#10, 600 V, RHH/RHW insulation |
| | | | | | | UP210-1B-9C | 2 + 1 gnd #8,#10, 600 V, RHH/RHW insulation |
| 3804 | E-284, E-285 | 78 | RGS-PVC coated conduit | 436.32 | 1935.24 | Pull rope | Soft-Fiber Polyester |
| | | | | | | UP210-1B-10 | 2 + 1 gnd #12,#12, 600 V, RHH/RHW insulation |
| | | | | | | UP210-1B-9A | 2 + 1 gnd #8,#10, 600 V, RHH/RHW insulation |
| | | | | | | UP210-1B-9C | 2 + 1 gnd #8,#10, 600 V, RHH/RHW insulation |
| 3805 | E-284, E-275 | 53 | RGS-PVC coated conduit | 337.90 | 879.42 | UP210-1B-10 | 2 + 1 gnd #12,#12, 600 V, RHH/RHW insulation |
| | | | | | | Pull rope | Soft-Fiber Polyester |
| | | | | | | UP210-1B-9B | 2 + 1 gnd #8,#10, 600 V, RHH/RHW insulation |
| | | | | | | UP210-1B-9C | 2 + 1 gnd #8,#10, 600 V, RHH/RHW insulation |
| 3806 | E-284, E-275 | 53 | RGS-PVC coated conduit | 241.67 | 879.42 | UP210-1B-12 | 2 + 1 gnd #12, #12, 600 V, RHH/RHW insulation |
| | | | | | | UP210-1B-11 | 2 + 1 gnd #8, #10, 600 V, RHH/RHW insulation |
| | | | | | | UP210-1B-11C | 2 + 1 gnd #8, #10, 600 V, RHH/RHW insulation |
| 3807 | E-284, E-275 | 53 | RGS-PVC coated conduit | 241.67 | 879.42 | UP210-1B-11A | 2 + 1 gnd #8, #10, 600 V, RHH/RHW insulation |
| | | | | | | UP210-1B-11C | 2 + 1 gnd #8, #10, 600 V, RHH/RHW insulation |
| | | | | | | UP210-1B-12 | 2 + 1 gnd #12, #12, 600 V, RHH/RHW insulation |

## CONDUIT DATA

| Conduit No | Reference | Size | Type | Total Fill (mm²) | Allowable Fill (mm²) | Included Cable No. | Conductor Type |
|---|---|---|---|---|---|---|---|
| 3808 | E-284, E-275 | 53 | RGS-PVC coated conduit | 241.67 | 879.42 | UP210-1B-12 | 2 + 1 gnd #12, #12, 600 V, RHH/RHW insulation |
| | | | | | | UP210-1B-11B | 2 + 1 gnd #8, #10, 600 V, RHH/RHW insulation |
| | | | | | | UP210-1B-11C | 2 + 1 gnd #8, #10, 600 V, RHH/RHW insulation |
| 4007 | E-114 | 53 | RGS-PVC coated conduit | 150.44 | 879.42 | Pull rope | Soft-Fiber Polyester |
| | | | | | | MVDSW02A | MVDS DLC |
| 4009 | E-71A 2 | 53 | RGS-PVC coated conduit | 60.80 | 879.42 | Pull rope | Soft-Fiber Polyester |
| | | | | | | UP104-5 | 2 + 1 gnd #10,#10, 600 V, RHH/RHW insulation |
| 4010 | E-71A | 53 | RGS-PVC coated conduit | 98.42 | 879.42 | UP104-12 | 2 + 1 gnd #12,#12, 600 V, RHH/RHW insulation |
| | | | | | | Pull rope | Soft-Fiber Polyester |
| | | | | | | UP104-10 | 2 + 1 gnd #12,#12, 600 V, RHH/RHW insulation |
| 4011 | E-71A | 53 | RGS-PVC coated conduit | 0.00 | 879.42 | Pull rope | Soft-Fiber Polyester |
| 4029 | E-72A | 78 | RGS-PVC coated conduit | 1217.21 | 1935.24 | 1201-5 | 1-3/C #14,600 V, EPR insulation |
| | | | | | | UP105-15 | 1-2/C + gnd #8,600 V, EPR insulation |
| | | | | | | Pull rope | Soft-Fiber Polyester |
| | | | | | | 1201-4 | 1-9/C #16,600 V, EPR insulation |
| | | | | | | 1201-3 | 1-3/C #14,600 V, EPR insulation |
| | | | | | | 1201-1 | 1-2/C + gnd #8,600 V, EPR insulation |
| | | | | | | 1201-6 | 1-2/C + gnd #8,600 V, EPR insulation |
| | | | | | | 1201-2 | 1-2/C + gnd #8,600 V, EPR insulation |
| 4032 | E-115 | 78 | RGS-PVC coated conduit | 317.80 | 1935.24 | Pull rope | Soft-Fiber Polyester |
| | | | | | | 1474-5B | 1 - 6 pair, shielded #18 with overall shield , 300 V, PVC jacket |
| | | | | | | 1474-5A | 1 - 6 pair, shielded #18 with overall shield , 300 V, PVC jacket |
| 4033 | E-72A 2 | 53 | RGS-PVC coated conduit | 481.89 | 879.42 | Pull rope | Soft-Fiber Polyester |
| | | | | | | UP105-5 | 2 + 1 gnd #12,#12, 600 V, RHH/RHW insulation |
| | | | | | | UP105-13 | 1-2/C + gnd #12,600 V, EPR insulation |
| | | | | | | UP105-11 | 1-2/C + gnd #12,600 V, EPR insulation |
| | | | | | | UP105-15 | 1-2/C + gnd #8,600 V, EPR insulation |
| 4034 | E-72A | 53 | RGS-PVC coated conduit | 0.00 | 879.42 | Pull rope | Soft-Fiber Polyester |
| 4035 | E-72A | 53 | RGS-PVC coated conduit | 0.00 | 879.42 | Pull rope | Soft-Fiber Polyester |
| 4036 | E-73A | 53 | RGS-PVC coated conduit | 276.67 | 879.42 | UP106-5 | 2 + 1 gnd #12,#12, 600 V, RHH/RHW insulation |
| | | | | | | UP106-15 | 1-2/C + gnd #8,600 V, EPR insulation |
| | | | | | | Pull rope | Soft-Fiber Polyester |

For continuation, see next sheet.

# CONDUIT AND TRAY SCHEDULE

E-431

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

DESIGN OVERSIGHT
BEHZAD GOLEMOHAMMADI

CALCULATED/DESIGNED BY PBP
CHECKED BY AB
DATE 8/02 8/02
REVISED BY DATE REVISED

LAST REVISION 00-00-00
DATE PLOTTED => 6/12/2008
TIME PLOTTED => 4:11:36 PM

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS 0 20 40 60 80

DGN FILE =>T:\13103\MS\pse\SAS Struc\CCO\SAS CCO55\04-0120f1_0386R02.dgn
USERNAME =>llorico

CU 04251 EA 0120F1