

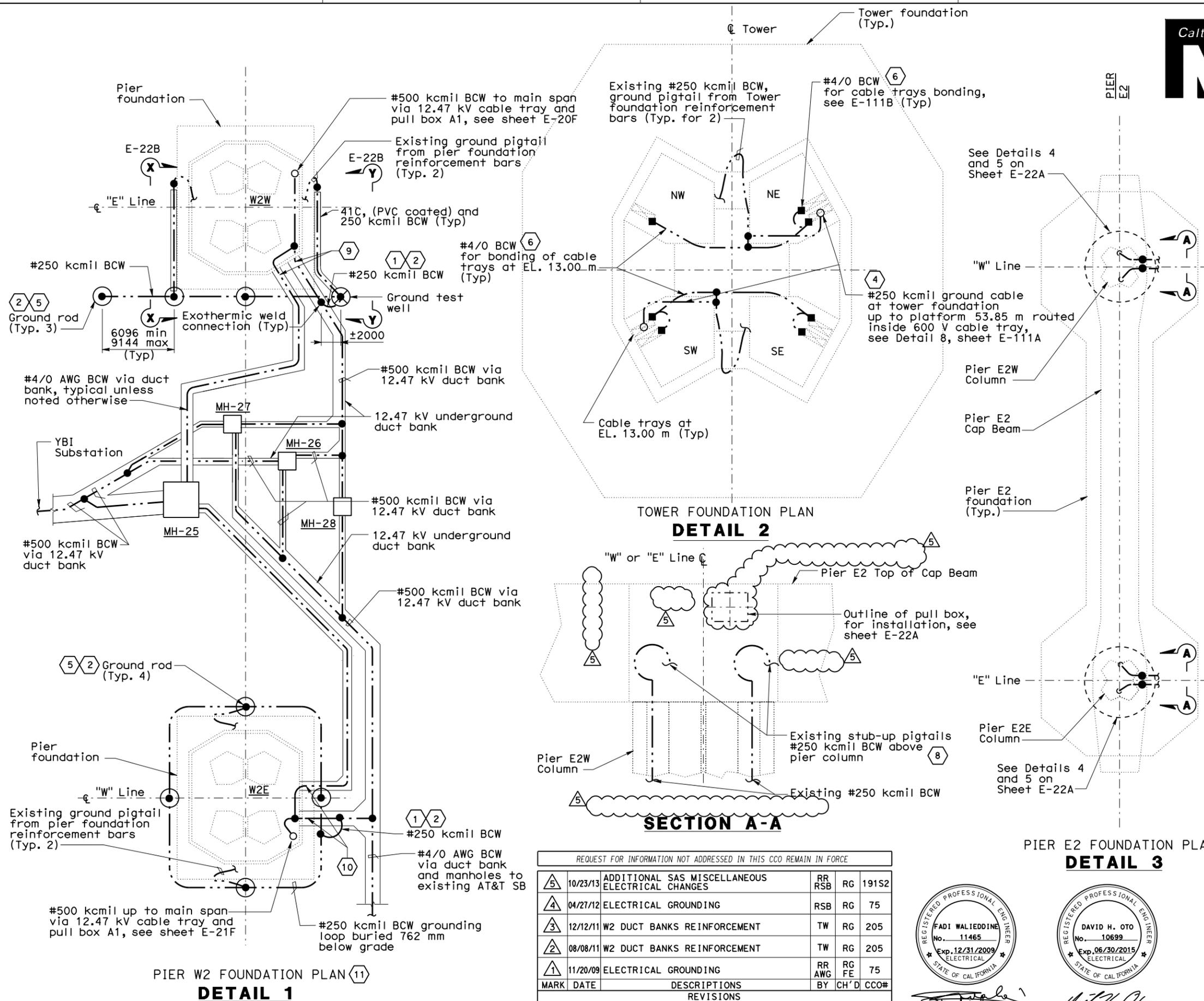
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DESIGN OVERSIGHT
 BEHZAD GOLEMOHAMMADI
 REVISIONS
 DATE REVISION BY DATE REVISION BY
 11/01 12/01
 KG PF
 CALCULATED/DESIGNED BY CHECKED BY
 BEHZAD GOLEMOHAMMADI

DIST	COUNTY	ROUTE	KILOMETER TOTAL PROJECT	POST PROJECT	SHEET No	TOTAL SHEETS
04	SF	80	13.2/13.9		105 R5	1204

REGISTERED ELECTRICAL ENGINEER DATE 12/19/02
 JENS ERLINGSSON No. 8249 Exp. 9/30/06
 PB AMERICAS, Inc.
 A Parsons Brinckerhoff Company
 303 Second St., Suite 700N
 San Francisco, CA 94107-1317

12-6-04
 PLANS APPROVAL DATE

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- SHEET NOTES:**
- 1 Tie the underground duct bank #500 kcmil Bare Copper Wire (BCW) system grounding conductor to the W2E and W2W pier foundations. See W2 contract 04-0120C4 for limited scope of work.
 - 2 Route the #250 kcmil grounding conductors around the W2W and connect to the new grounding rods. This grounding loop shall be exothermically connected to the #500 kcmil main ground conductor at the pier. This is typical for pier W2E.
 - 3 Not used.
 - 4 Main tower foundation ground conductors shall be routed vertically up to platform 53.85 m via 600V cable trays inside SW and NE tower quadrants and tied exothermically to the #500 kcmil main ground conductor.
 - 5 Ground rod shall be copper clad, 19 mm diameter and 3048 mm long.
 - 6 Bond all the cable trays to the ground loop at Tower elevation 13 m.
 - 7 Deleted
 - 8 For connection of stub-up #250 kcmil BCW to grounding plates, see sheet E-22A.
 - 9 See Detail 1, sheet E-22B for grounding installation through pier pit wall.
 - 10 See Detail 2, sheet E-22B for grounding installation through pier pit wall.
 - 11 Pier grounding system must be verified and tested for ground resistance prior to tie-in to #500 kcmil main ground conductor. Perform tests, by the fall-of-potential method according to IEEE-81. Contractor shall submit a test plan and procedure for Engineer's approval. Test results shall be submitted to the Engineer for evaluation and approval.

REQUEST FOR INFORMATION NOT ADDRESSED IN THIS CCO REMAIN IN FORCE

MARK	DATE	DESCRIPTIONS	BY	CH'D	CCO#
5	10/23/13	ADDITIONAL SAS MISCELLANEOUS ELECTRICAL CHANGES	RR RSB	RG	191S2
4	04/27/12	ELECTRICAL GROUNDING	RSB	RG	75
3	12/12/11	W2 DUCT BANKS REINFORCEMENT	TW	RG	205
2	08/08/11	W2 DUCT BANKS REINFORCEMENT	TW	RG	205
1	11/20/09	ELECTRICAL GROUNDING	RR AWG	RG FE	75

CONTRACT CHANGE ORDER NO. _____
 SHEET _____ OF _____

FOR REVISION ONLY FOR REVISION ONLY

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

REGISTERED PROFESSIONAL ENGINEER
 DAVID H. OTO
 No. 10699
 Exp. 06/30/2015
 ELECTRICAL
 STATE OF CALIFORNIA

ORIGINAL SHEET SUPERCEDED

**DETAILS
 UNDERGROUND
 FOUNDATION GROUNDING**
 NO SCALE

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN



DGN FILE => 04-0120f1_0105R05.dgn
 USERNAME => Llorico

DATE PLOTTED => 21-OCT-2013
 TIME PLOTTED => 16:51
 10-23-13