DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
04	SF	80	13.2/13.9	103 S2R3	1204

REGISTERED ELECTRICAL ENGINEER — DATE 2/22/08

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER S. A. ESTOQUE, JR. No. E-10151 Exp. 12/31/2008 STATE OF CALIFORNIA

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

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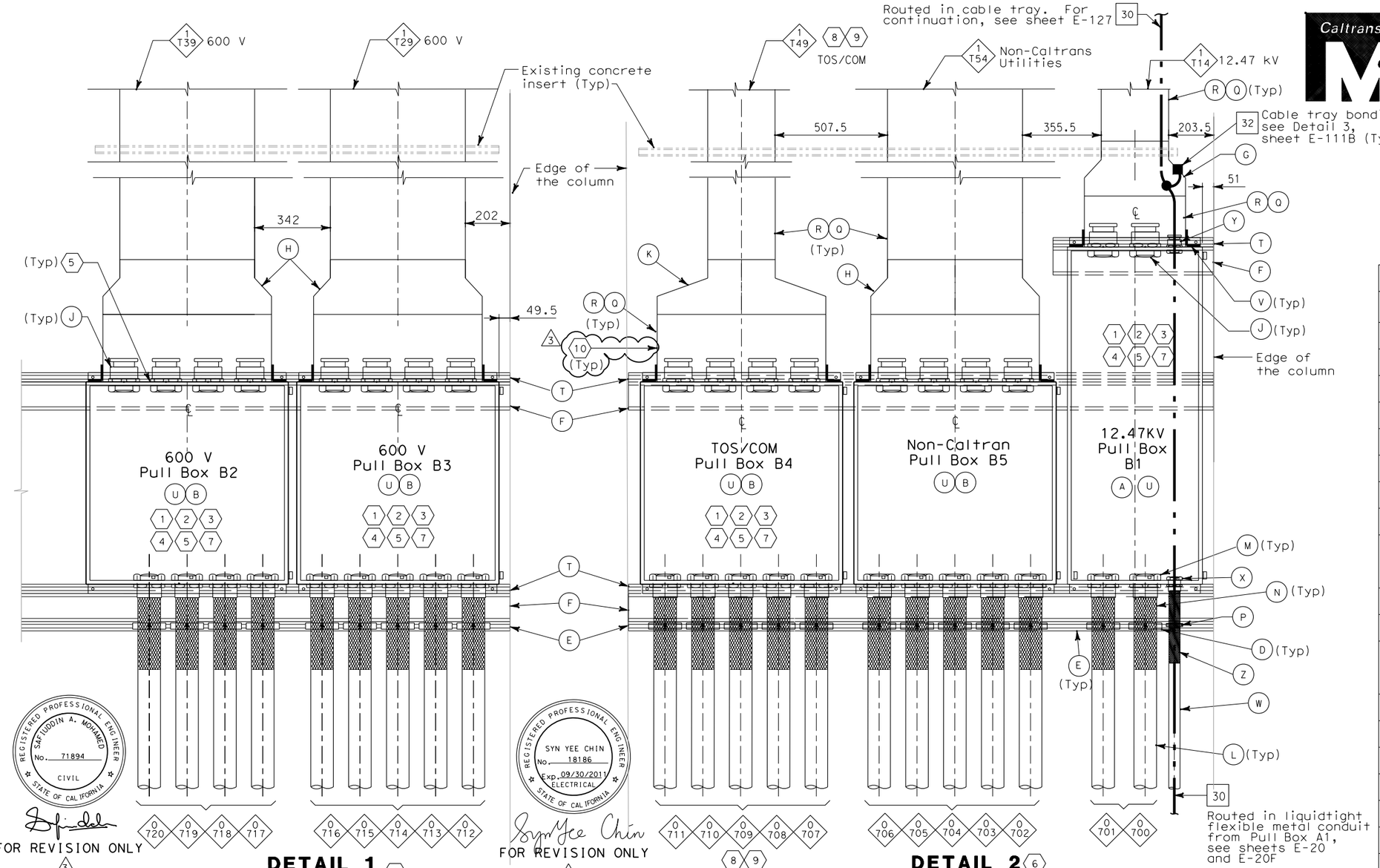

REGISTERED PROFESSIONAL ENGINEER SAFIUDDIN A. MOHAMED No. 71894 CIVIL STATE OF CALIFORNIA

FOR REVISION ONLY 3

DETAIL 1 (6)
NO SCALE

REGISTERED PROFESSIONAL ENGINEER SYN YEE CHIN No. 18186 Exp. 09/30/2011 ELECTRICAL STATE OF CALIFORNIA

FOR REVISION ONLY 2

DETAIL 2 (6)
NO SCALE

MATERIAL LIST

Item No.	Description
A	Pull Box, Nema 4X 1524 mm x 610 mm x 406 mm
B	Pull Box, Nema 4X 914 mm x 914 mm x 305 mm
C	Not used
D	Strut channel conduit clamp for 103 mm
E	Double strut channel 41 mm x 124 mm
F	Channel C130x10
G	Cable tray straight reducer (547 mm to 305 mm)
H	Cable tray straight reducer (762 mm to 610 mm)
J	103 mm conduit hub, 53 mm long nipple and insulated bushing
K	Cable tray straight reducer (762 mm to 305 mm)
L	Liquidtight flexible metal conduit, 103 mm
M	Liquidtight Insulated flexible metal conduit connector with insulated grounding bushing for 103 mm conduit
N	Strain relief grips for flexible conduit, 103 mm
P	Strut channel conduit clamp for 53 mm
Q	Cable tray, ladder type 3
R	Cable tray solid flanged cover and cover clamp
T	Strut channel 41 mm x 41 mm
U	Breather and Drain Hole
V	Tray to box connector plates
W	Liquidtight flexible metal conduit, 53 mm
X	Liquidtight Insulated flexible metal conduit connector with insulated grounding bushing for 53 mm conduit
Y	53 mm conduit hub, 53 mm long nipple and insulated bushing
Z	Strain relief grips for flexible conduit, 53 mm

SHEET NOTES:

1. For Pull Boxes location see E-20.
2. For Pull Box sizes and opening see E-20C.
3. For Pull Box mounting and support see E-20A.
4. Contractor shall verify all the dimensions prior to start the work.
5. To prevent moisture and water from entering enclosures, Contractor to provide sealant after all cables are pulled. Conduits and nipples without cables shall be capped for future use.
6. Detail 1 & Detail 2 see sheet E-20.
7. All liquidtight flexible metal conduit (LFMC) shall have #2 AWG bare copper wire inside that bonded to the grounding bushing whether shown on the drawings or not. Bond conduit bushings together and to the metallic enclosures. For similar bonding jumpers, see Details 6 and 7, sheet E-111B.
8. Furnish and install 4-25.4 mm innerducts inside TOS/COM conduit (0709) and 1-25.4 mm innerduct per BASE fiber optic cable in TOS/COM cable tray.
9. Furnish and install BASE fiber optic cable in innerduct inside TOS/COM conduit and cable tray. See sheet E-1100.
10. For vertical cable tray not flush with the pier column wall, Contractor shall provide solid flanged cover on top and bottom of cable tray with approved heavy duty cover clamps. (3)

NOTE:

1. All cable/cables entering the liquidtight conduits from the pull box shall be provided with strain relief cable/cables grips attached from the vertical cable tray rungs.

REQUEST FOR INFORMATION NOT ADDRESSED IN THIS CCO REMAIN IN FORCE

MARK	DATE	DESCRIPTIONS	BY	CH'D	CCO#
3	02/17/12	CABLE TRAY COVER AT W2	RSB	RG	234
2	03/01/11	BASE INTEGRATION	RSB	WB	150
1	11/20/09	ELECTRICAL GROUNDING	RR AWG	RG FW	75
0	02/25/08	CABLE TRAY CHANGES	TW	RG SE	42S1

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 1

DETAILS
UNDERGROUND
PIER W2W PLANS AND SECTIONS
SCALE AS NOTED

E-20B

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.

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

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USERNAME =>garciar

CU 04251 | EA 0120F1

LAST REVISION 00-00-00 | DATE PLOTTED => 2/16/2012 TIME PLOTTED => 10:52:19 AM

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

DESIGN OVERSIGHT BEHZAD GOLEMOHAMMADI

CALCULATED/DESIGNED BY TW DATE 7/07 REVISED BY
CHECKED BY EJL 7/07 DATE REVISED