DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
04	SF	80	13.2/13.9	150 R2	1204

12/19/02
REGISTERED ELECTRICAL ENGINEER DATE

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

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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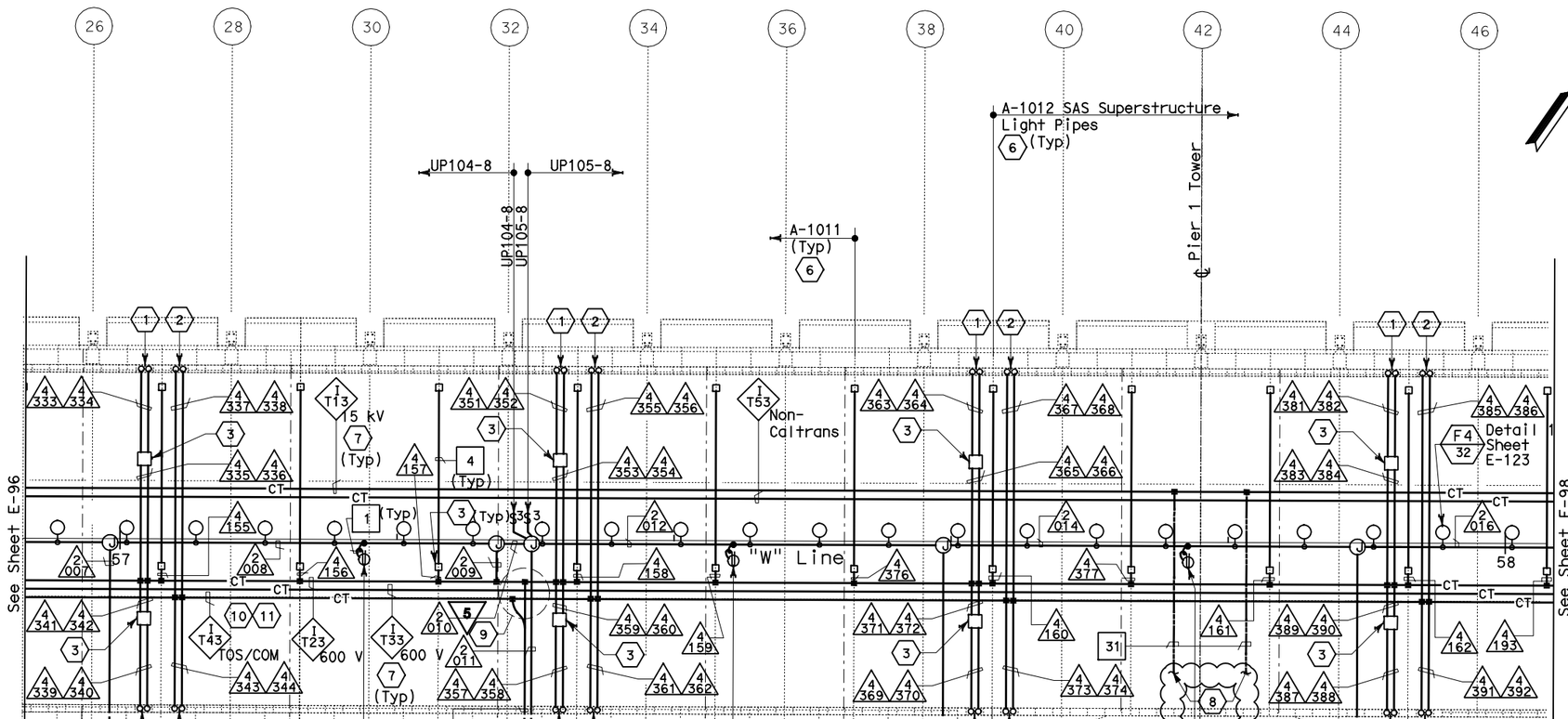

SHEET NOTES:

1. Conduit up to PB-LTG located in barrier, see sheet E-47.
2. Conduit up to PB-COM located in barrier, see sheet E-47.
3. PB-2A locate on top of floor.
4. For cable tray run and lighting inside crossbeam, see sheet E-115.
5. For lighting inside crossbeam, see sheet E-119.
6. PB-2L with circuit for future light pipes. See sheet E-121 for installation details and E-130 for lighting schedule.
7. For cable tray & ground bar support, refer to sheet E-125.
8. 250 kcmil copper grounding conductor exothermically welded ~~to 500 kcmil system grounding conductor~~. Route 250kcmil BCW in 2 - 2" liquidtight flexible metal conduit. For continuation, see sheet E-111A.
9. For fiber splice tray detail, refer to sheet E-355.
10. Furnish and install 1-25.4 mm innerduct per BASE fiber optic cable in TOS/COM cable tray.
11. Furnish and install BASE fiber optic cable in innerduct. See sheet E-1100.

41C

NOTES:

1. References:
   - TOS equipment is shown for conduit routing only. For typical details of TOS controller and devices, see sheets E-344 through E-357.
   - For types of pull boxes, splice boxes and enclosures, see sheet E-83.
   - For bridge grounding plan, see sheet E-111.
   - For circuit and conduit/cable tray schedules, see sheets starting at E-401.
2. For other related work not shown on this sheet, see Electrical Special Provisions.
3. The girder lighting fixtures are shown diagrammatically. Contractor shall install fixtures at railing posts with a maximum of 8000 mm between fixtures. For types and typical lighting fixture installation details, see sheet E-123.
4. The cable trays are shown diagrammatically. For typical girder cable tray plans and sections, see sheets E-124 and E-125.

SK-RFI3244R00-E97
Adil M. 4/3/13

SAS SUPERSTRUCTURE - CONDUIT AND CABLE TRAY PLAN

SAS SUPERSTRUCTURE GIRDER WESTBOUND
LIGHTING AND ELECTRICAL SYSTEMS

SCALE 1:200

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

FOR REVISION ONLY
1

REGISTERED PROFESSIONAL ENGINEER
DAVID H. OTO
No. 10699
Exp. 06/30/2013
ELECTRICAL
STATE OF CALIFORNIA

FOR REVISION ONLY
2

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

REQUEST FOR INFORMATION NOT ADDRESSED IN THIS CCO REMAIN IN FORCE					
2	04/27/12	ELECTRICAL GROUNDING	RSB RM	RG	75
1	03/01/11	BASE INTEGRATION	RSB	WB	150
MARK	DATE	DESCRIPTIONS REVISIONS	BY	CH'D	CCO#

CONTRACT CHANGE ORDER NO._____
SHEET_____ OF _____

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E-97

DRAFT 1 (03/01/11)
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Caltrans
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BEHZAD GOLEMOHAMMADI
CALCULATED/DESIGNED BY
CHECKED BY
DATE 8/02 REVISED BY
FK
IAH 8/02 DATE REVISED

LAST REVISION 00-00-00
DATE PLOTTED => 25-APR-2012
TIME PLOTTED => 16:58

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CU 04251
EA 0120F1

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
04	SF	80	13.2/13.9	165 S1R3	1204

REGISTERED ELECTRICAL ENGINEER — 8/11/08 DATE

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

PLANS APPROVAL DATE

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

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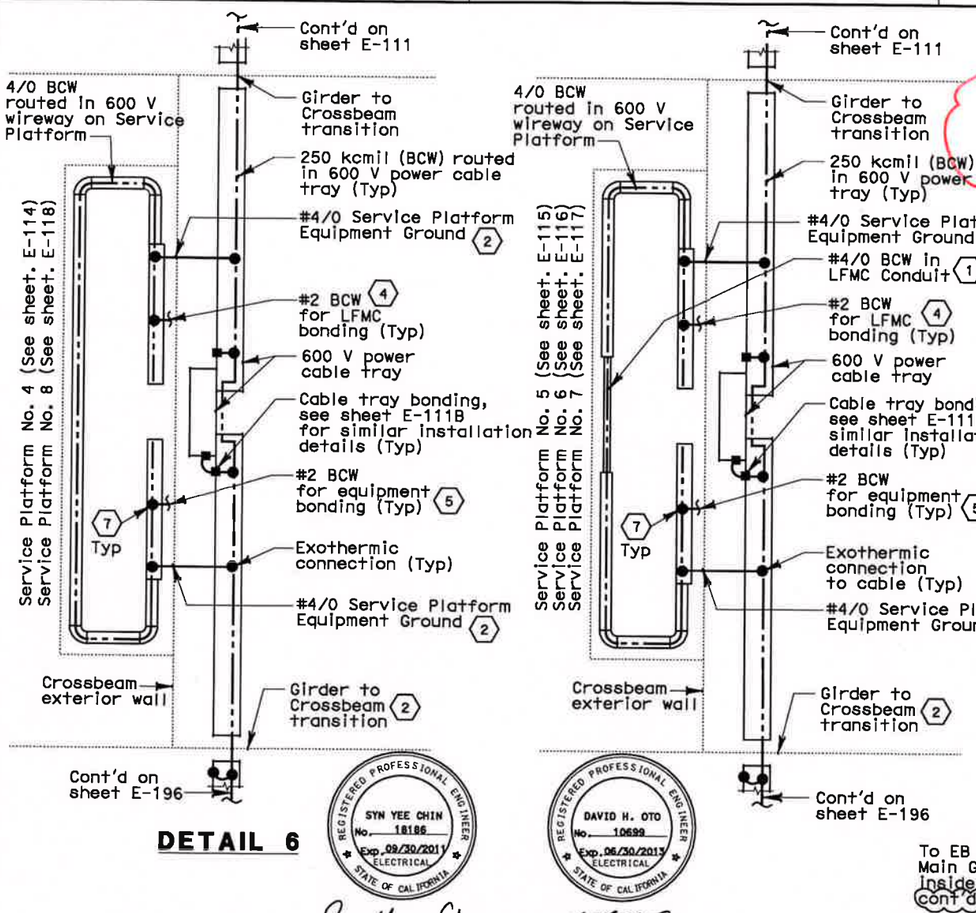
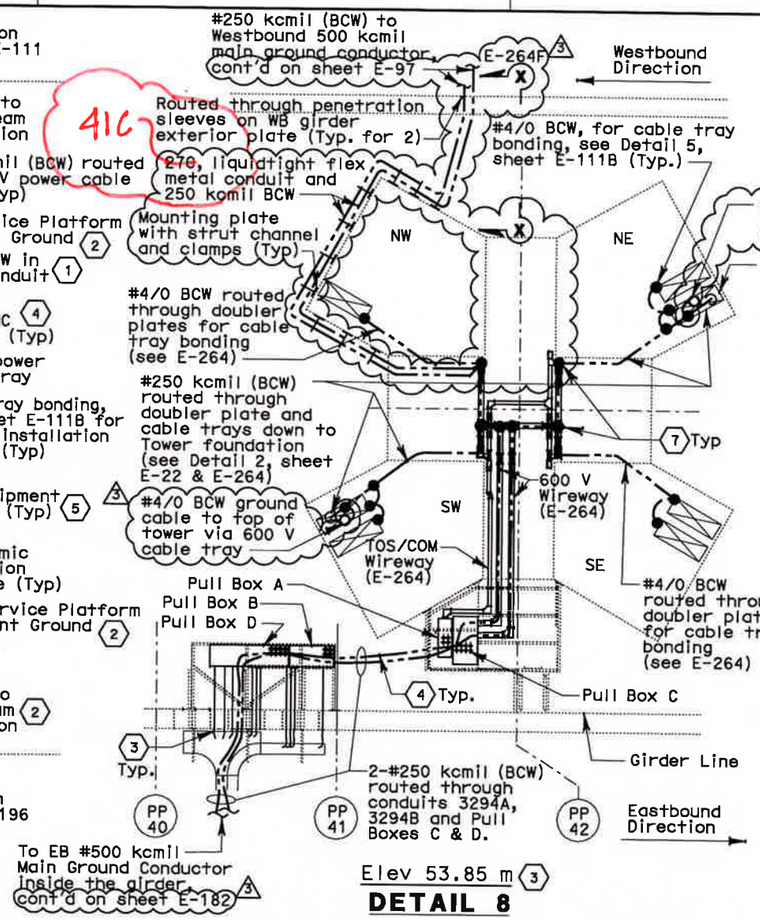
CHECKED BY			

DESIGN OVERSIGHT — BEHZAD GOLEMOHAMMADI

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans





SHEET NOTES:

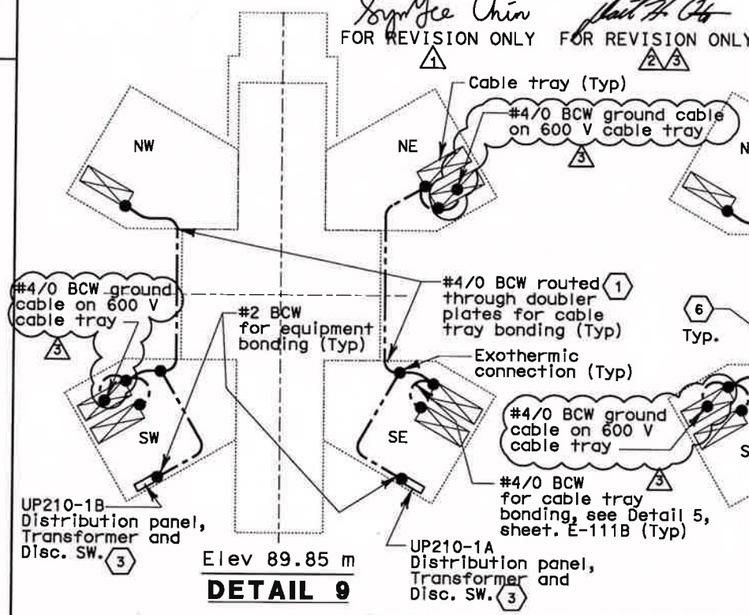
1. (1) Ground conductor shall be protected from damage when exposed outside the structures. Route ground cable in liquidtight flexible metal conduit (LFMC) for protection, unless routed in cable tray or wireway unless noted otherwise.
2. (2) Route #4/0 BCW through crossbeam exterior wall in liquidtight flexible metal conduit via conduit sleeves, see sheets E-114, E-115, E-116, E-117 and E-118.
3. (3) Install #2 BCW grounding conductors to grounding bushing for bonding conduits to cable tray.
4. (4) Install #2 BCW inside each liquidtight flex metal conduit and connect between the grounding wire and the conduit grounding bushing, see Detail 7 on sheet E-111B for similar installation.
5. (5) Ground conductor for equipment bonding shall be routed in the same conduit connected to equipment, see sheets E-71A, E-72A, E-73A, E-74A, E-75A, E-114, E-115, E-116, E-117 and E-118 for equipment arrangement.
6. (6) Grounding wire splices exposed outside the structures shall be enclosed with NEMA 4X pull box for protection. Where required, mechanical connection using Burndy Versitap Type QPX clamps or equal may be used for splices inside the box in lieu of exothermic weld. Pull box shall be 457 x 305 x 152D or size as required.
7. (7) Where exothermic weld connection is not feasible inside the wireway, compression type connectors may be used.

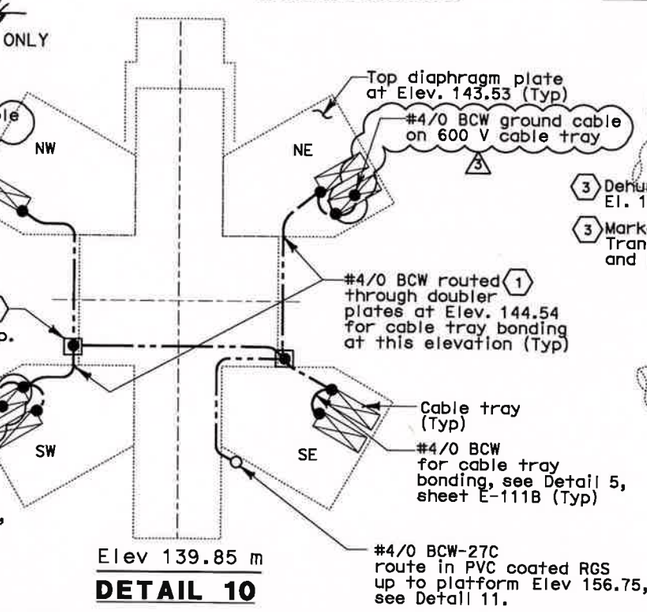
NOTES:

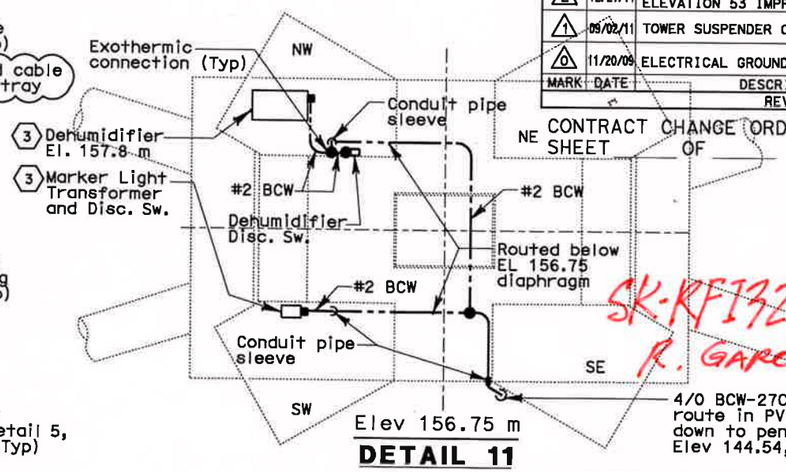
1. See sheet E-111 for additional notes and sheet notes.
2. The contractor shall install pull box/JB(s) along conduit runs to limit bends to be three (3) 90 degrees or fewer.

REQUEST FOR INFORMATION NOT ADDRESSED IN THIS CCO REMAIN IN FORCE					
MARK	DATE	REVISIONS DESCRIPTIONS	BY	CH'D	CCO#
3	04/27/12	ELECTRICAL GROUNDING	RSB RM	RG	75
2	12/21/11	ELECTRICAL CHANGE FOR ELEVATION 53 IMPROVEMENTS	TW	RG	190
1	09/02/11	TOWER SUSPENDER CABLE & ELEVATOR	RM	TW	2035S1
0	11/20/09	ELECTRICAL GROUNDING	AG RR	RG	75

CONTRACT CHANGE ORDER NO. _____
SHEET _____ OF _____







SK-RFI3244R00-E111A
R. GARCIA 4/3/13

DETAILS
SAS SUPERSTRUCTURE GIRDER WESTBOUND GROUNDING DETAILS
NO SCALE

E-111A

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CU 04251

EA 0120F1

LAST REVISION 12-21-11
DATE PLOTTED => 25-APR-2012
TIME PLOTTED => 16:58

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
04	SF	80	13.2/13.9	271 S5R2	1204

REGISTERED ELECTRICAL ENGINEER DATE

PLANS APPROVAL DATE

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

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

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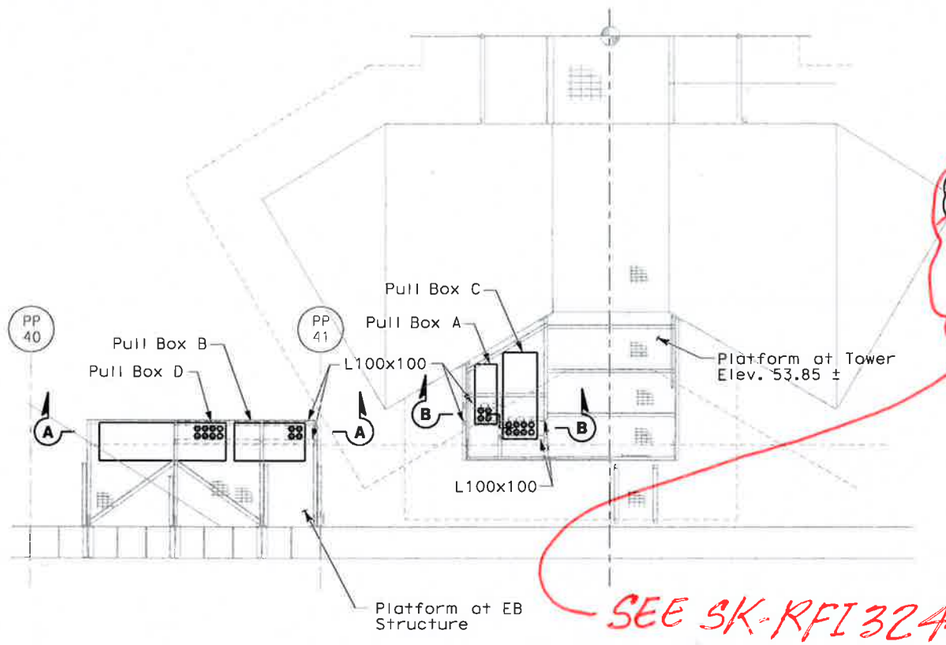
NOTES:

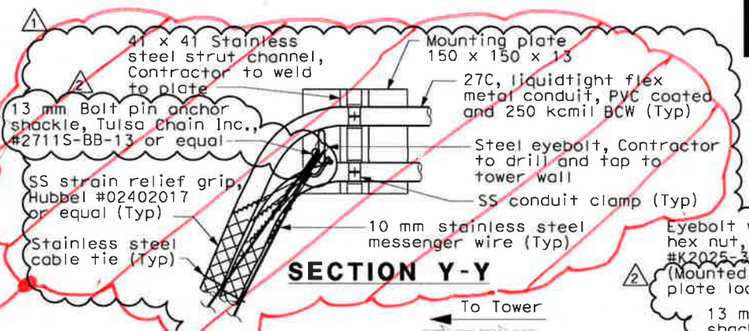
1. For reference drawing see Sheet E-264A.



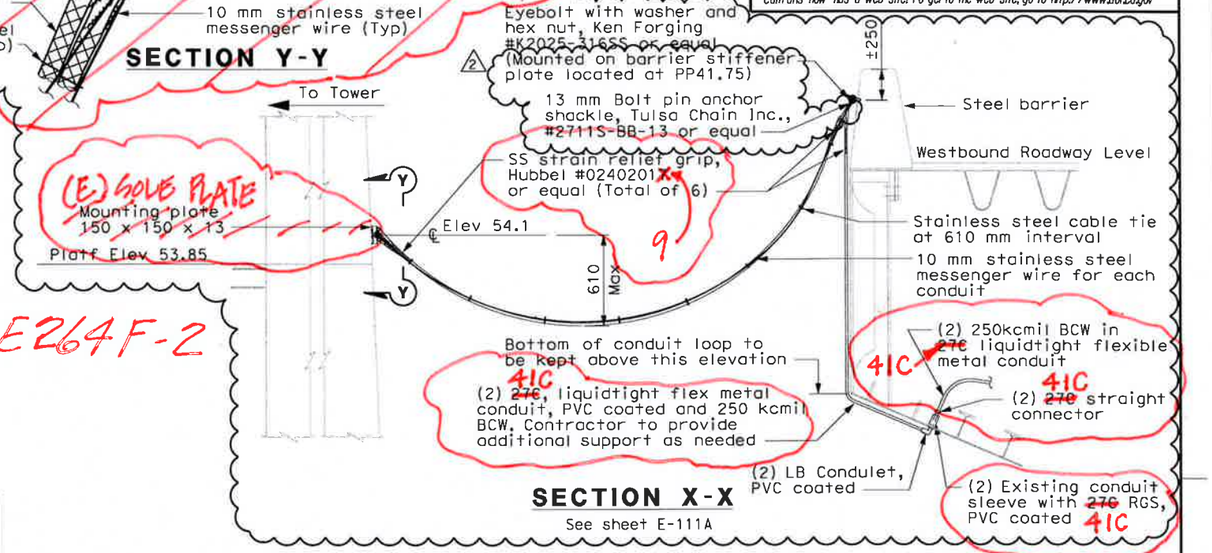
SEE SK-RFI3244K00-E264F-2

PLAN-PLATFORM AT ELEV 53.85

NO SCALE

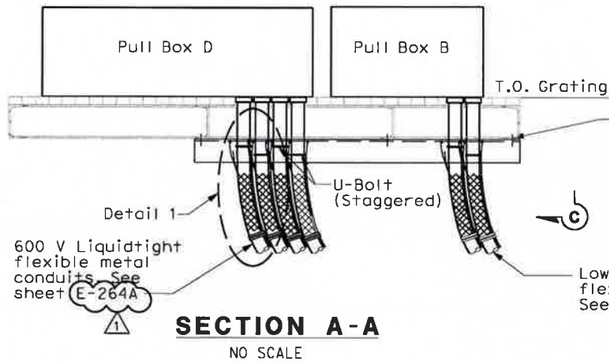


SECTION Y-Y



SECTION X-X

See sheet E-111A



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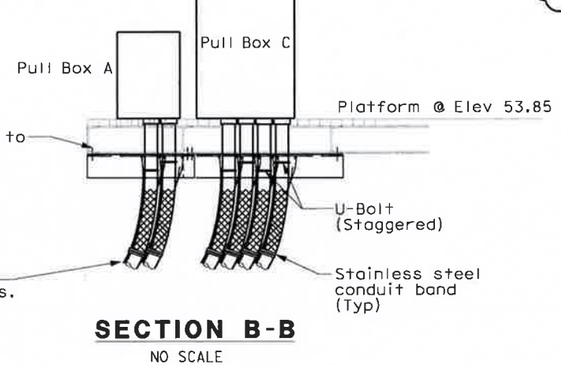

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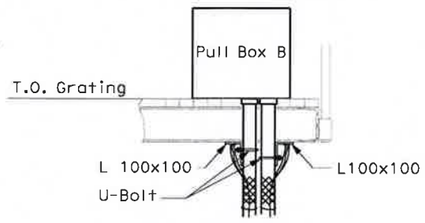
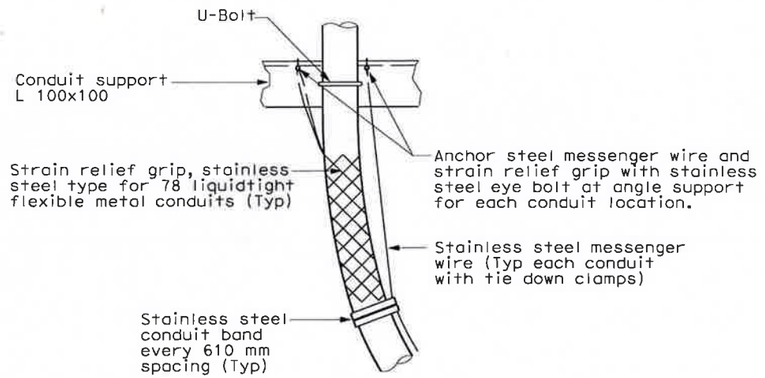


SECTION C-C

NO SCALE



DETAIL 1

(TYPICAL)

REGISTERED PROFESSIONAL ENGINEER — DAVID H. OTO No. 10699 Exp. 06/30/2013 ELECTRICAL — STATE OF CALIFORNIA

FOR REVISION ONLY

1 2

REQUEST FOR INFORMATION NOT ADDRESSED IN THIS CCO REMAIN IN FORCE					
2	07/31/12	ELECTRICAL GROUNDING	RSB	RG	75
1	04/27/12	ELECTRICAL GROUNDING	RSB RM	RG	75
0	03/30/09	SERVICE PLATFORM ELECTRICAL CHANGES	RR RY	RG FW	55
MARK	DATE	DESCRIPTIONS	BY	CH'D	CCO#
REVISIONS					

CONTRACT CHANGE ORDER NO._____

SHEET_____ OF _____

DETAILS
TOWER AND SUSPENSION CABLE

NO SCALE

SK-RFI3244K00-E264F-1
R. GARCIA 4/2/13

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E-264F

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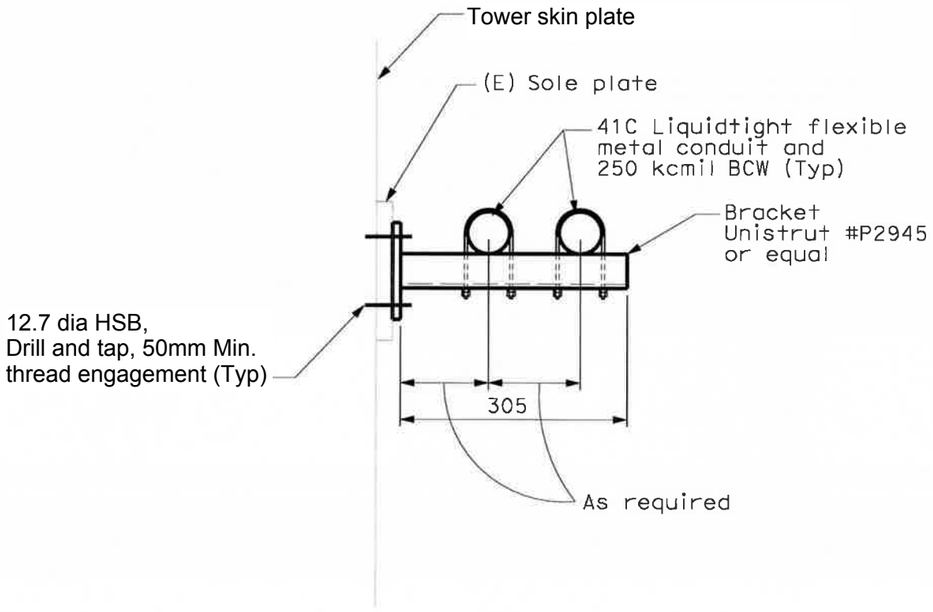
CU 04251 — EA 0120F1



SECTION D-D

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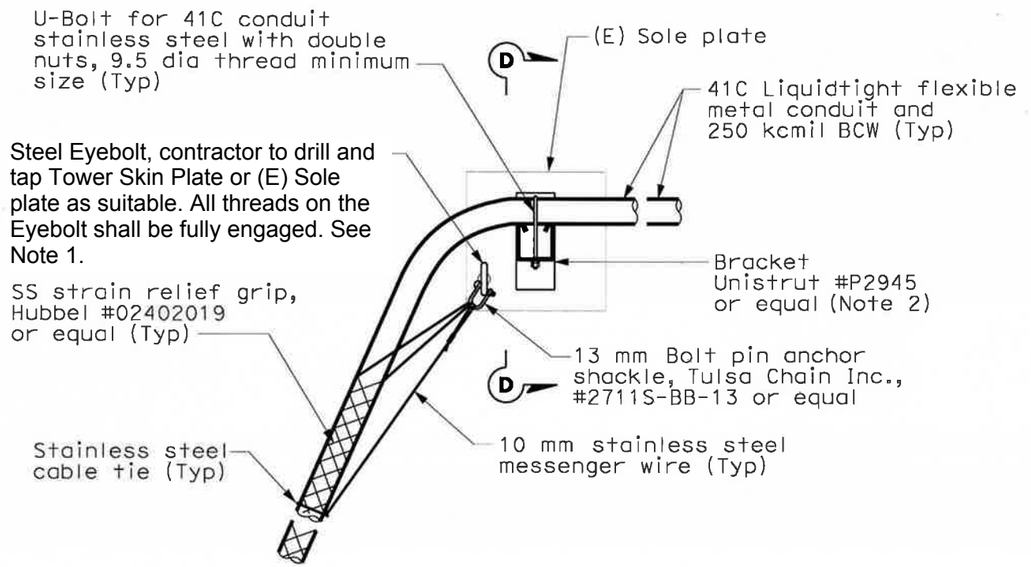

SECTION Y-Y

NO SCALE

NOTES:

1. Eyebolt location to suit field condition.
2. Bracket may be rotated 180 degree if U-bolt is not available with longer thread length. Conduit shall be placed on top of channel strut.

SK-RFI3244R00-E264F-2

R. GARCIA **APRIL 02, 2013**