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RFI Response

To: Caltrans

Attn: Bill Shedd, Martin Chandrawinata, Stanley Ku

Project: 04-0120F4 - SAS

RFI Date: 06/05/2013

RFI No: 1462R01

Subject: **Pier E2: Existing Ground Cables**

Background:

Contractor states that the response to preceding RFI 1462R00 called for installation of grounding plates on East face of the Pier E2 Cap Beam. The ongoing E2 Shear Key retrofit work requires removal of the concrete around the grounding plates. The grounding plates and the grounding conductors were maintained intact during the E2 Shear Key retrofit work. Contractor is proposing to extend the grounding conductors to the edge of the E2 Shear Key retrofit concrete limits ("Concrete Jacket Wall") and provide a 610mm (2 ft.) long pigtail, which will be trimmed and cald-welded at a later date.

Response:

PB recommends the following course of action to route the grounding conductors from the current grounding plate locations at the East face of Pier E2 Cap Beam:

1) Contractor shall cut and remove the existing grounding plates to enable the installation of an in-line exothermic mold. New 250kcmil BCW grounding pigtails shall be exothermically spliced with the existing grounding conductors that were exposed during the E2 Shear Key retrofit work using an appropriate cald-weld method.

2) Contractor shall route the new 250kcmil BCW grounding pigtails behind the E2 Shear Key saddle assembly and extend out of the Concrete Jacket Wall at locations shown in attached sketch SK- RFI1462R01-E22A. The grounding pigtails shall not interfere with E2 Shear Key saddle assembly or PT ducts to be installed in this location. A minimum of 1524mm (5 ft.) extension for the new 250kcmil BCW grounding pigtails shall be provided beyond the face of the Concrete Jacket Wall. Contractor has an option to provide longer extension to suit field conditions.

3) Contractor shall install one (1) 53C RGS conduit stub and 53C RGS threaded coupler embedded in the Concrete Jacket Wall each at the North and South end of the East face of Pier E2 Cap Beam as shown in the attached SK-RFI1462R01-E22A to enclose the grounding pigtails. The conduit stub and threaded coupler shall be located to avoid any interference with the reinforcement.

4) Upon completion of E2 Shear Key retrofit work, contractor shall route the new 250kcmil BCW grounding pigtails inside 53C RGS conduits to the pull box mounted on the East face of the Concrete Jacket Wall as shown in attached sketch SK-RFI1462R01-E22A. The conduits shall be connected to the 53C RGS threaded coupler noted in step 3. Conduits and pull boxes shall be attached to the face of Pier E2 Cap Beam Concrete Jacket Wall per response to RFI 3351R00.

5) Contractor shall route 250kcmil BCW grounding conductors inside LTFM conduits from the pull box up to the existing 500kcmil main grounding conductor located inside the Westbound and Eastbound OBGs to make the final connection.

Referenced Document(s):

- Contract Plan Sheet(s): 105R4, 105S1, 165R3, 225R2/1204.
- Response to RFI 1462R00

Potential Design/Cost Impact from this RFI:

☐ No Change.
☐ Change with no cost.
☒ Change with cost.
☐ Change with Credit.
☐ Change, but cost cannot be determined at this time.

Date: 07/02/2013	**Respondent:**	Rocky Garcia	**Phone No.:**	415 243 4735
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