



SAS Superstructure

Location: 04-SF-80-13.2 / 13.9

Client Name: CalTrans

Run date 22-Nov-14

Time 6:58 AM

Daily Diary Report by Bid Item

Contract No.: 04-0120F4

Diary #: 1136 Const Calendar Day: 709 Date: 14-May-2014 Wednesday

Inspector Name: Brignano, Bob Title: Transportation Engineer

Inspection Type:

Shift Hours: Break: Over Time:

Federal ID:

Location:

Reviewer: Schmitt, Alex Approved Date: Status: Submit

04-0120F4
04-SF-80-13.2/13.9
Self-Anchored
Suspension Bridge

Weather

Temperature 7 AM 12 PM 4PM
Precipitation Condition clear

Working Day [checked] If no, explain:

Diary:

Dispute

General Comments

CCO 314, SAMPLING AND TESTING A354 GRADE BD MATERIAL:



ABF Engineer Kelvin Chen is working part time in the field and office on CCO 314.

There is work in the field on setup of TR's 14-17. Crews at the Pier 7 warehouse area are working an 8-hour shift 0600 through 1430. Laborer Carlos (Pedro) Garcia works all day on CCO 314. Ironworker Jared Garrett works all day on CCO 314. Ironworker Jonathan Canites works part of today (couple hours in the morning) on CCO 314, with the non-CCO 314 operations elsewhere at the Pier 7 warehouse area not covered by this diary. Operators Justin Garrett and Ryan Oku each work a couple of hours at different times today on CCO 314, with the non-CCO 314 operations elsewhere at the Pier 7 warehouse area not covered by this diary. Ryan Oku's work is in the early part of the morning, and Justin Garrett's work is later in the morning and in the afternoon.

Laborer Carlos (Pedro) Garcia starts the day by using Permatex Ultra Black Maximum Oil Resistance RTV Silicone Gasket Maker (product approved by the DJV for use in the wet chamber) to caulk abandoned holes in the wet chambers at TR's 14-17. These are the drill and tap holes in TR's 1-4 used to hold the reinforcing washer over the grommet. These holes were painted with epoxy paint by CCC over the last 2 days, and this caulking is an added layer of protection. Note that some of these drill and tap holes are blind holes and some were drilled through holes. In the morning, he only completes this work at TR's 14 & 15, before going to other operations needed more urgently.

First thing in the morning, the operator brings the 2 galvanized test rods from the warehouse to the test rig area. The plan is to install the test rods in the test rigs today.

Before installing rods in the test rigs, the ironworkers drill holes in the flanges of the silicone bellows/flashing product where they will be bolted to the interior diaphragms between wet chambers and dry chambers. The holes are drilled to match the holes in the plate washers that will hold the flanges of the silicone bellows/flashing product. This hole drilling is between approximately 0600 and 0645. Then, they cut the hole in the bellows/flashing product for the 3" diameter test rod. After this work is completed later in the morning, the laborer cleans the silicone bellows/flashing product. This involves compressed air and water/rags. The main thing that needs to be cleaned is the aluminum dust from the reinforcement on the flange of the silicone bellows/flashing product.

As requested by the ironworkers, the laborer cuts blocking for the support of the test rods as they are installed by the ironworkers and operators in the test rigs. The blocking is needed to support the rod in several places as it is advanced through the test rigs.

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After 0800, the laborer resumes caulking in the test rigs. He is using Permatex Ultra Black Maximum Oil Resistance RTV Silicone Gasket Maker (product approved by the DJV for use in the wet chamber) to caulk abandoned holes in the wet chambers at TR's 14-17. Earlier in the morning, he completed work at TR's 14 & 15, and now he completes work at TR's 16 & 17. He is complete with caulking by about 0900. Two small tubes of this caulk are used for this caulking today.

While the laborer is cutting blocking and when an operator is not available this morning, the ironworkers continue yesterday's work exercising the 300-ton jacks. Yesterday, 6 of 10 jacks were exercised. Note that 8 of the jacks will be needed in TR's 14-17 and the other 2 jacks are spares. This is to check for leaks, to bleed out any air or water, and determine if there are any issues with any of the jacks that require the use of spare jacks. The jacks that were previously flipped upside down are cycled at least 3 times to the 4,000 to 5,000 psi range. Some of the jacks had water that came out during the exercising. The jacks without water coming out are cycled 3 times and the jacks with water coming out are cycled a few extra times to ensure they are cleared out. The work also includes cleaning the hydraulic fittings. This morning, 3 of the 4 jacks are exercised. The jacks completed this morning are 1A, 1B, and 6D, with jack 6C remaining to be exercised later. Then in the afternoon, the ironworker exercises the last jack (6C) and is complete with exercising all 10 jacks by approximately 1330. All 10 jacks are ok to use in the TR's.

The first test rod is installed in TR 14 between ~0730 and ~0830. This involves 2 ironworkers and 1 operator in the extendable forklift. The rod is advanced slowly, set on timber blocking, the rigging is adjusted to different support points on the rod through different handholes in the test rigs, and the rod is continued to be advanced into the test rig. Note that the installation of the rod chips some of the epoxy paint in the diaphragm hole (between wet chamber and dry chamber) for the rod, and this area will need touchup paint later.

Note that during the installation of the rod, the bellows/flashing product and the plate washers are installed on the test rod. After the rod advances past the first diaphragm, one flashing product and one washer are installed on the rod and then as the rod is advanced, the flashing and washer are moved down the rod. Then just before the rod goes through the second diaphragm, the second flashing product and washer are added to the rod. Also, a pair of rubber bands are added to each end of the rod near the flashing product so that they can be used in the future by CT-METS to hold the AE sensors while the epoxy cures. This process is used at each of the 4 test rods installed today.

About 0830, ABF starts to install the test rod in TR 15, but the operator is called to another operation. Meanwhile the laborer adjusts the height of the previously cut timber blocking for this test rig. Then, after approximately 0930, the laborer cuts more blocking for use in TR's 16 & 17. Then the laborer does general site cleanup at the TR work area. After approximately 0930, an operator with the extendable forklift is back at the TR area, and the TR 15 test rod is installed by 1 ironworker and 1 operator. The installation is complete about 1015. Note that in order to protect the epoxy paint in the diaphragm hole (between wet chamber and dry chamber) for the rod, masking tape is applied but this tape comes off when the rod is installed and the paint is chipped (will need touchup paint later).

Then the operator goes to the warehouse to bring the 2 ungalvanized test rods from the warehouse to the test rig area. The TR 16 test rod is installed in the test rig starting about 1040. By the 1100 lunch break, the rod is about half installed. The rod is installed the rest of the way between 1130 and approximately 1200. This work is with 1 ironworker and 1 operator. Then the TR 17 test rod is installed in the test rig between approximately 1200 and approximately 1245.

After installation of the last rod, the ironworker resumes work exercising the 300-ton jacks started earlier today (and also yesterday). Then he puts the jacks on pallets to take to the south end of the test rigs where they will be installed at a later date.

At the end of the day, after spending time on general site cleanup, the laborer tapes visqueen over the test rig ends (test rod sticks out beyond the end of the TR's) and adds plywood covers over the TR handholes at TR's 16 & 17. These are the ungalvanized test rods and these protection methods are used to minimize

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the forming of rust that will need to be cleaned later prior to the installation of the end plates and bolting of the flashing to seal the wet chambers.

After yesterday's blasting and painting (zinc primer) by CCC of the 4 washers needed for use with the 2 galvanized test rods in TR's 14 & 15, the completed washers are given to ABF by CCC this morning.

CT-METS Elijah Turner and Scott Croff work in the morning to test again (also tested yesterday afternoon) previously recovered AE sensors and wires from older instrumentation projects on the bridge to see if they can be used for TR's 14-17. The results of the tests are that these AE sensors cannot be used at the new TR's 14-17.

A 7kW generator – Whisperwatt 7000 – ABF ID 002343 is used at the test rig work area for most of the day by the laborer and ironworkers – drill holes, cut blocking, vacuum cleanup. A 40kW generator – MQ Power 40 – ABF ID 002051 is used for part of today to run the hydraulic pump. A Hydraulic Pump for running the jacks is used for part of today. An oxyacetylene torch is on idle/standby at the test rig work area. A compressor – IR P185 ABF ID 000002 is used briefly at the test rig work area – clean bellows/flashing. Two Kubota Carts are in use today by the laborer and ironworkers. An extendable forklift and small (CAT) forklift are used at different times today.

Note that there is k-rail at this work area. Some of the k-rail is rented and addressed by the rental agreement. Some of the k-rail is ABF's k-rail used on site and paid as rented from ABF on a daily basis. To elevate the k-rail, crane mats and timber blocking (12x12's) are in use. The k-rail quantities are as follows:

10' bought k-rail = 20 pieces
20' rented k-rail = 10 pieces
20' ABF k-rail = 6 pieces

The tabulation of the 20' ABF k-rail is as follows:
Two (2) 20' ABF k-rail at the north end of TR 17.
Two (2) 20' ABF k-rail at the north end of TR 16.
One (1) 20' ABF k-rail at TR 15 (longitudinal running).
One (1) 20' ABF k-rail at TR 14 (longitudinal running).

The agreed extra work with ABF is as follows:

Engineer Kelvin Chen - 3 hrs
Laborer Carlos (Pedro) Garcia - 8 hrs
Ironworker Jared Garrett - 8 hrs
Ironworker Jonathan Canites - 2 hrs
Operator Ryan Oku - 2 hrs
Operator Justin Garrett - 2 hrs
Radios (5 radios) - 22 hrs
7kW Generator - 8 hrs
40kW Generator - 2 hrs
Kubota Carts (2 each) - 16 hrs
Small Forklift - 1 hr
Extendable Forklift - 4 hrs
k-rail: 6 pcs @20'
Crane Mats (12x12 - 5'x16') - 2 pcs
Crane Mats (12x12 - 5'x7') - 8 pcs
See the attached Extra Work Order - Signed with ABF for CCO 314 work