



SAS Superstructure

Location: 04-SF-80-13.2 / 13.9

Client Name: CalTrans

Run date 22-Nov-14

Time 6:57 AM

Daily Diary Report by Bid Item

Contract No.: 04-0120F4

Diary #: 1149 Const Calendar Day: 722 Date: 27-May-2014 Tuesday

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. Ironworker Jared Garrett works all day on CCO 314. Ironworker Jonathan Canites works at the CCO 314 site for portions of the morning and afternoon, adding up to about 6 hours (~0700~1230 & ~1330~1430), with the non-CCO 314 operations elsewhere at the Pier 7 warehouse area at other times in the day (~0600~0700 & ~1230~1330) not covered by this diary. Laborer Carlos (Pedro) Garcia works briefly (less than half hour) at the CCO 314 site to cut wood shims for the ironworkers, with the non-CCO 314 operations elsewhere at the Pier 7 warehouse area at other times in the day not covered by this diary.

For the TR 7 test rod for which testing was completed in February, lab testing is now scheduled to begin soon to pull it to failure (couldn't pull to failure in February due to failure of the jacks). The DJV and CT-METS have requested the removal of the cylindrical sleeve that was located at the diaphragm between the wet chamber and the dry chamber, but previous attempts at the removal in the last few weeks have been unsuccessful. Between 0600 and 0900 today, the ironworkers are working on the removal of the cylindrical sleeve again. Previously ABF was able to move the cylindrical sleeve only a few inches in either direction but never completely off the area where it had been installed with thread sealant. ABF continued last week's work of moving the cylindrical sleeve back and forth and cleaning (wire wheel brush, hand brush, brake cleaner) thread sealant from the rod where the cylindrical sleeve had been located. This operation is repeated a few times, with the cylindrical sleeve getting a little farther each time. Eventually the cylindrical sleeve gets to a portion of the rod which had been completely cleaned - no longer on the area where it had been installed with thread sealant. Then the cylindrical sleeve still gets stuck and will not advance past a certain point, presumably because of hardened thread sealant traveling in the cylindrical sleeve threads. At this point, I give the ok to use a weed burner to heat up the cylindrical sleeve to expand the cylindrical sleeve and soften the thread sealant (permission given by DJV for this operation). This heating operation starts about 0800. This heating operation gets the cylindrical sleeve advanced farther than it got before, but it still does not get all the way off the test rod. At some point, it appears that the cylindrical sleeve expands enough and the sleeve is moved such that the cylindrical sleeve becomes cross threaded on the rod (peak of the cylindrical sleeve threads are on the peak of the rod threads). At this point, I give the ok to cut off the cylindrical sleeve with 2 longitudinal cuts (permission given by DJV for this operation). Starting about 0830, a disk grinder with a cutting disk is used to make the 2 longitudinal cuts to remove the cylindrical sleeve in 2 halves. Note that this operation does impact the rod threads - some of the rod threads are hit by the cutting disk, but the damage to the rod is only in

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the peaks of the threads and does not go below the root of the threads. Work on the TR 7 rod and cylindrical sleeve is done by 0900. More work is still needed at a later date to do more cleaning of the rod to get it to the point where the heat treater will accept it – the heat tinting at the heat treater is scheduled for Monday next week and the cleaning will be completed by then.

While one ironworker works on the TR 7 rod, the other ironworker gets the jacking rods and couplers for TR's 14 and 15 from the warehouse at about 0830. After the morning break, installation of the jacking rods and couplers at TR's 14 and 15 starts about 0920. The first step is applying Rector Seal No. 5 on the test rods where the couplers will engage – this is requested by CT-METS AE for signal transmission from the test rod to the coupler where one of the AE sensors will be located. The couplers were previously installed on the jacking rods (8" engagement for the 4" diameter jacking rods), so today's operation involves threading the couplers (with the jacking rods out the back) onto the test rods. The couplers are installed on 6" (6" engagement for the 3" diameter test rods) of the 6-1/8" stickout beyond the nuts, leaving a 1/8" gap between the nuts and couplers. This operation is between about 0920 and 0935 at TR 14S. Then it is between about 0935 and 0950 at TR 15S.

The next operation for ABF is to set and adjust the elevation of the stainless steel slide plate and jacking beam at TR 14. This operation includes removing and reattaching the guide angles. Note that the nuts anchoring the guide angles do not come off easily by hand, so an impact gun is used to remove the nuts and reinstall them. Also note that different thickness wood shims are needed under the stainless steel slide plate and the laborer is called to the test rig area to cut shims (few minutes of work on CCO). The stainless steel slide plate, jacking beam, and guide angle work is complete by the 1100 lunch break. I then notice that the height of the guide angles are such that they do not extend above the horizontal stiffener on the jacking beam and there is a vertical plate at the end of the jacking beam that result in the possibility of the jacking beam hitting the end of a guide angle with enough jacking if the jacking beam goes at a slight angle. That would stop the jacking operation at some point with no easy solution given that the test rod would be at a high load and access would be very limited with the traffic plates in place. After the lunch break, the ironworkers remove the guide angles, shim up the guide angles, and chamfer the end of the guide angles. The guide angles are shimmed up with plate washers taken from TR's 5 to 13. A disk grinder is used to chamfer the end of the guide angles so that if they do hit the vertical plate at the end of the jacking beam, there is an opportunity for the jacking beam to push past the guide angles. With these changes, the work on the guide angles is complete about 1330.

The DJV is on site at the test rigs today to etch the intentional holiday at the dead end of the galvanized test rods in TR's 14 & 15. From the DJV are Doug Williams and Hayat Tazir between about 1130 and 1230 for this operation. The intentional holiday is etched with a diamond saw (diamond impregnated string) over 360-degrees for 3 thread roots in the area of the first thread engagement of the dead end nut with the test rod. I assist with measurements to determine the location of the first thread engagement of the nut with the test rod. This measurement is taken from one direction by measuring the expected stickout and nut height. Then it is measured as a check from the other direction by going from the end plate plus the spherical washer height.

Because the intentional holiday was etched at the dead end of TR's 14 & 15 today, ABF begins work on the test rod nut and washer at TR 14N. This work starts about 1330. At TR14N, Teflon plumbers tape is added by the ironworkers to the test rod in the area of the back half of the nut – wrap 2 times, for 1.5" of the 3" tall nut, keeping away from the area of the first thread of the nut engagement with the rod. Note that the rod is slightly rotated from where it is supposed to be – the top mark is just off the top. This is not corrected today and will be corrected in the future.

VGO travels from Oregon to the Bay Area today. From VGO are Rob Rutledge, Nick Buck, and Pamela Wallace. They are driving the VGO truck from Oregon to the Bay Area. They arrive on site sometime in the afternoon today, drop off some materials/equipment, and then go to the hotel. Work on site for VGO will not start until tomorrow.

A material delivery for the test rigs arrives today. At some time today, a pallet with tents/canopies arrives and is unloaded by an ironworker or operator at the warehouse. These are 4 additional tents/canopies for

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use with 2 test rigs, with enough tents/canopies on site for the other 2 test rigs.

A 7kW generator – Whisperwatt 7000 – ABF ID 002343 is used in the morning to run a wire wheel brush and disk grinder at the TR 7 rod today. A 40kW generator – MQ Power 40 – ABF ID 002051 is used briefly to power a disk grinder at TR 14. A Hydraulic Pump for running the jacks is on idle/standby at the test rig work area. An oxyacetylene torch is used to run a weed burner at the TR 7 rod today. A compressor – IR P185 ABF ID 000002 is used to run an air gun at TR 14. An extendable forklift (Gradall 544D – ABF ID 002005) and Hyster 155 forklift (ABF ID 002375) are used at different times at the TR's. A Kubota Cart is used at times by the ironworkers at the test rig work area when they are not using the forklifts.

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 - 1 hr

Ironworker Jared Garrett - 8 hrs

Ironworker Jonathan Canites - 6 hrs

Radios (2 radios) - 14 hrs

Extendable Forklift - 4 hrs

185 CFM Compressor - 2 hrs

Impact Gun - 2 hrs

7kW Generator - 4 hrs

40kW Generator - 1 hr

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