



SAS Superstructure

Location: 04-SF-80-13.2 / 13.9

Client Name: CalTrans

Run date 22-Nov-14

Time 6:50 AM

Daily Diary Report by Bid Item

Contract No.: 04-0120F4

Diary #: 1242 Const Calendar Day: 815 Date: 28-Aug-2014 Thursday

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 overcast am, clear pm

Working Day [checked] If no, explain:

Diary:

Dispute

General Comments

CCO 314, SAMPLING AND TESTING A354 GRADE BD MATERIAL:

The status of the 2 test rigs in this current phase of the Townsend Test (Test IV) is as follows:

Rod 18 (Dry 2008 Rod, ID S1-A7, Bottom): Tensioned to 0.65 Fu Today

Rod 19 (Dry 2008 Rod, ID S2-H6, Bottom): Tensioned to 0.65 Fu Today

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

There is work in the field for the scheduled jacking step at TR's 18 & 19. Crews at the Pier 7 warehouse are working an 8-hour shift 0600 through 1430. Working on the CCO operation today are Ironworker Jared Garrett (~0915~0950 for ~1/2 hr) and Ironworker Foreman Obra Paulk (~0930~0950 for ~1/2 hr). The ABF timesheet rounds up the time to 1 hour for each ironworker, taking into consideration travel time from elsewhere at the Pier 7 warehouse area and disruption to the other scheduled operations. The start of the operation is with only 1 ironworker, with the second ironworker joining the operation part way through it. The non-CCO 314 operations elsewhere at the Pier 7 warehouse area at other times in the day are not covered by this diary.

VGO is on site today for the jacking step at TR's 18 & 19. From VGO, Dave Van Dyke starts work on site at ~0800. He works on the morning data reports before this morning's scheduled tensioning step. VGO is present for live data display during the jacking step at the test rigs. Then, VGO works on the data reports from the jacking step at the test rigs. VGO leaves the site ~1030. Dave flies from the Bay Area to Oregon this afternoon. Remotely, at the end of the day, VGO produces and sends the pm data reports.

For the jacking step at the 2 test rigs, present from the DJV is Luis Funes. Present from CT-METS for AE are Elijah Turner and Saied Khan (communicate with Mistras personnel offsite). Two ABF ironworkers are present to operate the hydraulic pump, tighten the nut, and deal with any issues that may come up during the jacking operation, with VGO present to monitor the loads being used to guide the operations.

Test Rig #18 (Dry 2008 Rod, ID S1-A7, Bottom) Jacking Step:

This is the 6th jacking step and the rod is being jacked to 0.65 Fu. The post-seating of the nut target is 543.270 +10/-0 kips. The expected hydraulic pressure at this locked off force is 3,900 psi. Based on the previous jacking step (8/26/2014 - 0.60 Fu), the expected seating loss is at least 38 kips (plus some expected bleed loss during AE check), so the initial jacking target is ~585~595 kips. The tension on the rod at the start of the operation is 499 kips (the 0.60 Fu load left on the rod 2 days ago was 503 kips for a delta of -4 kips, with this tension difference possibly due to thermal differences between 8/26/2014 and today). Jacking is started at 0922. At 3,900 psi hydraulic pressure per the dial gauge, the primary strain



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Job Name: 04-0120F4

Inspector Name Brignano, Bob

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gauges give a force of 535 kips. The hydraulic pressure is increased to 4,500 psi and the primary strain gauges give a force of 591 kips. The AE is checked with the ok given at 0926. The nut is tightened. Prior to bleeding off the jacks, the primary strain gauges give a force of 589 kips (bleed loss = 2 kips). After bleeding off the jacks, the primary strain gauges give a force of 548 kips (seating loss = 41 kips). The force is within the specified tolerance.

Test Rig #19 (Dry 2008 Rod, ID S2-H6, Bottom) Jacking Step:

This is the 6th jacking step and the rod is being jacked to 0.65 Fu. The post-seating of the nut target is 543.270 +10/-0 kips. The expected hydraulic pressure at this locked off force is 3,900 psi. Based on the previous jacking step (8/26/2014 - 0.60 Fu), the expected seating loss is at least 38 kips (plus some expected bleed loss during AE check), so the initial jacking target is ~585~595 kips. The tension on the rod at the start of the operation is 499 kips (the 0.60 Fu load left on the rod 2 days ago was 504 kips for a delta of -5 kips, with this tension difference possibly due to thermal differences between 8/26/2014 and today). Jacking is started at 0929. At 3,900 psi hydraulic pressure per the dial gauge, the primary strain gauges give a force of 528 kips. The hydraulic pressure is increased to 4,500 psi and the primary strain gauges give a force of 586 kips. The AE is checked with the ok given at 0935. The nut is tightened. Prior to bleeding off the jacks, the primary strain gauges give a force of 583 kips (bleed loss = 3 kips). After bleeding off the jacks, the primary strain gauges give a force of 541 kips (seating loss = 42 kips). This is not within tolerance – force is low by ~2 kips from the minimum target, so another jacking step is needed. At 4,500+ psi hydraulic pressure per the dial gauge, the primary strain gauges give a force of 595 kips (9 kips higher). The AE is checked with the ok given at 0939. The nut is tightened. Prior to bleeding off the jacks, the primary strain gauges give a force of 593 kips (bleed loss = 2 kips). After bleeding off the jacks, the primary strain gauges give a force of 551 kips (seating loss = 42 kips). The increase of 10 kips is from 9 kips higher jacking force, 1 kip less bleed loss, and no change to the seating loss. The force is within the specified tolerance.

A 40kW generator – MQ Power 40 – ABF ID 002051 is used briefly for the jacking operations and is on idle/standby at the test rig work area the remainder of the day. A Hydraulic Pump for running the jacks is used briefly for the jacking operations and is on idle/standby at the test rig work area the remainder of the day. A Kubota Cart is used by the ironworkers.

Note that there is k-rail at this work area. All the remaining k-rail at the CCO 314 test rig site is State owned. There are 20 pieces of 10' bought k-rail. Of the 20 pieces, 16 are installed in test rigs and 4 are spare/extra k-rail that are set aside.

To elevate k-rail and sandbags, crane mats (built from 12x12's) and timber blocking (12x12's) are used.

The crane mat and 12x12's quantities are as follows:

1 each 4'x20' crane mat (1 x 80 LF)  
1 each 5'x19' crane mat (1 x 95 LF)  
2 each 5'x20' crane mats (2 x 100 LF)  
2 each 5'x16' crane mat (2 x 80 LF)  
~64 LF additional 12x12's  
Total 12x12's quantity = 599 LF ~ 600 LF

The agreed extra work with ABF is as follows:

Ironworker Jared Garrett - 1 hr  
Ironworker Foreman Obra Paulk - 1 hr  
Engineer Kelvin Chen - 0.5 hrs  
40 kW Generator - 0.5 hr  
12x12 timber - 600 LF

See the attached Extra Work Order - Signed with ABF for CCO 314 work