



SAS Superstructure

Location: 04-SF-80-13.2 / 13.9

Client Name: CalTrans

Run date 22-Nov-14

Time 6:53 AM

Daily Diary Report by Bid Item

Contract No.: 04-0120F4

Diary #: 1214 Const Calendar Day: 787 Date: 31-Jul-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:



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 18 & 19. Crews at the Pier 7 warehouse are working an 8-hour shift 0600 through 1430. Working on the CCO operation today are Laborer Foreman Ignacio (Nacho) Garcia or Laborer Carlos (Pedro) Garcia for a few minutes in the morning and afternoon, Ironworker Foreman (temporary foreman for today) Jared Garrett (0600 to1430), Operator John Sabatino (~0630~0700, ~0800~0815, ~0915~1100, ~1200~1230 for a total of about 3 hours), and Operator Justin Garrett (~1000~1030). The non-CCO 314 operations elsewhere at the Pier 7 warehouse area at other times in the day are not covered by this diary. Note that several of ABF's ironworkers are working a nightshift tonight for work on the cable security gate (CCO 378), so there are fewer ironworkers than normal at the Pier 7 warehouse area to handle the other operations on site. This affects the availability of ironworkers for the CCO 314 test rig operations. This nightshift work is anticipated to last the remainder of the week.

In the morning, the ironworker starts by working on the neoprene shims supporting the couplers at TR's 18 & 19. Yesterday the neoprene shims were installed despite the risk that they could be kicked out when VGO turned the rods for their strain gauge work. Yesterday the rod/coupler was raised by a forklift to install the neoprene. However, since then, AE sensors have been installed by CT-METS on the top of the couplers and there is not much space between the top of the AE sensors and the top of the test rigs. In order to avoid hitting the top of the test rigs with the AE sensors, thereby possibly damaging the instruments, the rods/couplers are raised by a small hand pump jack which has more precise control than a forklift, the neoprene is adjusted, and the couplers are set back on the neoprene shims. This operation also involves slightly rotating each rod so that the top strain gauges are on top, shifting the rod/coupler to one side so it is centered horizontally, and pushing it in slightly so that the coupler is the proper depth back from the end plate. This work is done at both TR's 18 & 19 by 0620. I also do some work on the wires for the AE sensors - with the work in the test rig complete (no more moving of the rod and coupler), I adjust the wire runs from the AE sensors through the holes in the tops of the test rigs and tape the wires in several locations to secure them. This is necessary to do now because the wires were left loose for the neoprene work planned for this morning - now they need to be properly secured while also leaving some slack so that any accidental hitting of the wires will not pull off the sensor glued inside the test rig without any access for repairs. Note that the face/end of the couplers are about 1" to 1-1/4" from the inside face of the end plate to be installed - the per plan dimension is 20mm (~ 3/4") "clear" (which means minimum) and the similar dimensions in TR's 12 & 13 were slightly greater than 1" (or 1"+) to error on the side of more than the clear dimension.

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After the work on the neoprene, the ironworker with assistance from an operator with an extendable forklift erects the south end plates. First the TR 19 end plate is installed and the bolts installed without tightening, and then the TR 18 end plate is installed and the bolts installed without tightening. After completing the end plate installation work at both test rigs, the bolts at both test rigs are tensioned by the turn of the nut method (sung + 1/2 turn) with an impact gun run from an air compressor. This is complete about 0730 and then the compressor needs to be removed from the test rig site for work elsewhere at the Pier 7 warehouse area (CCO 376 PWS Anchor Rod Adjustment Boltight Load Verification Testing).

After 0800, the ironworker with operator assistance starts installation of the stainless steel slide plate and jacking beam at TR 18. First the test rod spherical nut and spherical washer are installed at the south end to hold the rod stable during the work on the north end where the jacking beam is being installed on the jacking rod. The stainless steel slide plate work includes the ironworker going to the warehouse to have a laborer (Laborer Foreman Ignacio (Nacho) Garcia or Laborer Carlos (Pedro) Garcia) cut some shims (few minutes of work) to adjust the height of the stainless steel slide plate. Work at TR 18 on the stainless steel slide plate and jacking beam is complete by about 0945. Then similar work starts at TR 19. Work at TR 19 on the stainless steel slide plate and jacking beam is complete by about 0955. Then the ironworker with operator assistance installs the guide angles at TR's 18 & 19. There are issues with threads on the threaded rods that extend up from the concrete slab, so not all of the nuts and washers are installed today on the guide angles. The stainless steel slide plates also need to be shifted transversely slightly. These steps are not completed today.

In the afternoon, the ironworker and operator install the jacks at TR's 18 & 19. The 300-ton jacks 3A and 3B are installed at TR 19, then the 300-ton jacks 4A and 4B are installed at TR 18. For the jack installation, the jacking beam is temporarily offset to the north to create extra room for the jacks to clear the end plate bolts, and then the jacking beam is pushed/pulled towards the jacks. The jacks are temporarily installed high on temporary timber blocking, and in the future the jacks will need to have their pistons extended out and then the jacks will need to be lowered to sit on the end plate and jacking beam lugs (without the jack pistons extended at least 1" there is not enough material to sit on the 1" deep lugs on the jacking beams). The jack installation work includes the ironworker going to the warehouse to have a laborer (Laborer Foreman Ignacio (Nacho) Garcia or Laborer Carlos (Pedro) Garcia) cut some blocking (few minutes of work) to support the jacks high. Work on the jack installation is complete by about 1300.

VGO continues work on site today. From VGO, Dave Van Dyke, Rob Rutledge, and Mattea start work on site at 0800. VGO takes lunch between 1200 and 1230. When VGO starts work on site today, ABF is doing work at TR's 18 & 19, which includes working overhead (extendable forklift boom, rigging, test rig components) at the locations where VGO needs to do work to connect the wire runs to the strain gauges. As a result of the overhead safety issue, VGO does not work at the test rigs in the morning, and instead VGO works to clean out their trailer. They pull out the wire runs and instrumentation from the previous testing phase (TR's 14-17), saving certain components and trashing other components. After the VGO lunch break, ABF is no longer doing overhead work at the test rigs, so VGO resumes wiring work. By the end of the shift the connections between the strain gauges and the wire run are complete at TR 18 and almost complete at TR 19 (3 of 8 remain). Note that VGO is doing QC checks on the strain gauges as they make the connections. VGO leaves the site at 1630.

Between ~1330 and ~1400, CT-METS Elijah Turner and Scott Croff work on the wire runs for the AE sensors at TR's 18 & 19. Late yesterday, the AE sensors were epoxied on the couplers and the 2 wires roughly/preliminarily run back to the data logger. Today, 2 additional wires are added for the AE sensors to be installed in the future on the stickout ends of the test rods and the wire runs are finalized, including installing in timber protection segments previously fabricated by ABF, taping the wires down, and securing the wires and timber with sandbags. Note that the 2 AE sensors to be epoxied on the stickout ends of the 2 test rods could be installed today since the end plates were installed by ABF this morning, but this work is not done today and is scheduled to be done tomorrow when there is less activity anticipated in the area.

A 7kW generator – Whisperwatt 7000 – ABF ID 002343 is used briefly and is on idle/standby at the test rig work area the remainder of the day. A 40kW generator – MQ Power 40 – ABF ID 002051 is on



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idle/standby at the test rig work area. A Hydraulic Pump for running the jacks is on idle/standby at the test rig work area. An oxyacetylene torch is on idle/standby at the test rig work area. Various forklifts are used at the test rigs at different times – ABF's Hyster 155 forklift (ABF ID 002375), Hyster 80 forklift (ABF ID 002306), and extendable forklift (Gradall 544D - ABF ID 002005). A Kubota Cart is used by the ironworker at the test rig work area. A compressor - IR 185 ABF ID 002039 - was used for the nightshift CCO 378 cable security gate last night, is brought to the test rig site ~0600 where it is used for about an hour, and is removed from the test rig site ~0730 for CCO 376 PWS Anchor Rod Adjustment Boltight Load Verification Testing – this is the only working compressor at the Pier 7 warehouse area and it is needed at multiple locations for different work.

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. Only some of this k-rail is currently in a test rig setup (8 pieces installed) with the remaining k-rail at the test rig site awaiting use (8 pieces) in the new test rigs (TR's 18 & 19) or will be spare/extra k-rail (4 pieces).

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)
~4x2x4 = 32 LF additional 12x12's
Total 12x12's quantity = 407 LF

The agreed extra work with ABF is as follows:

Ironworker Foreman Jared Garrett - 8 hrs
Operator John Sabatino - 3 hrs
Hyster 80 Forklift - 2 hrs
Extendable Forklift - 4 hrs
185 CFM Compressor - 1 hr
Impact Gun - 1 hr
12x12 timber - 380 LF
See the attached Extra Work Order - Signed with ABF for CCO 314 work

CCO 376 PWS ANCHOR ROD ADJUSTMENT – BOLTIGHT LOAD VERIFICATION TESTING:

There is work in the warehouse today on the Boltight load verification with Translab. From Translab Erin McCrory and Eric Jacobson arrive on site approximately 0730, and I direct them to the warehouse where the work will happen later in the morning. The load verification work starts after 0800. Ironworker Ricky Damboise is working on this operation. Ironworker Jared Garrett was scheduled to assist on this operation today, but Ricky handles the work and Jared is able to spend the day on CCO 314 instead. The air compressor used for CCO 376 was also needed earlier for CCO 314 work, but work on CCO 314 with the air compressor is complete and the compressor returned for CCO 376 work at about 0730, before the CCO 376 work starts. The CCO 376 work is inspected by others.

INSPECTOR OT REMARK:

Field and Office 2 hours: ABF's shift is 0600 to 1430. VGO's shift is 0800 to 1630. I am in the field for ABF's work most of the time between 0600 and 1430. I am also in the field later in the day when VGO is working. I am also assisting CT-METS and the DJV with various requested info on A354 Grade BD bolts and rods late in the day. My shift is 0600 to 1630, with the OT between 1430 and 1630.

