



SAS Superstructure

Location: 04-SF-80-13.2 / 13.9

Client Name: CalTrans

Run date 22-Nov-14

Time 8:05 AM

Daily Diary Report by Bid Item

Contract No.: 04-0120F4

Diary #: 756 Const Calendar Day: 219 Date: 09-Jan-2013 Wednesday

Inspector Name: Bruce, Matt Title: Transportation Engineer

Inspection Type: Continuous

Shift Hours: 07:00 am 05:30 pm Break: 00:30 Over Time: 02:00

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 40 - 50 12 PM 50 - 60 4PM 50 - 60

Precipitation 0.00" Condition Cloudy

Working Day [ ] If no, explain:

Diary:

Dispute

Work description.

- Checked the three Hinge A pipe beams that had been moved yesterday into the correct longitudinal offset from Diaphragm A/B. The local measurements were done from 7:00am to 7:15am. The top deck steel temperature measured 40F which was taken at 7:15am near EPP127CL under cloudy conditions. The following are the measurements taken on the E/W-Line Hinge A pipe beams longitudinal position today:

Table with 3 columns: Pipe Beam, Length from Diaphragm A, Change from Yesterday. Rows include AW-N, AW-S, AE-N, AE-S.

The ABF ironworkers spent most of the morning positioning the restraint brackets on the pipe beams. Around 10:00am the ironworkers in both the E/W Line SAS OBGs had finished positioning a total of 5 restraint brackets. The following restraint brackets were positioned and approved at this time:

Table with 3 columns: Pipe Beam, Diaphragm (East/West face), Top/Bottom. Rows include AE-North, AE-South, AW-North, AW-North, AW-North.

Once the bracket was positioned by the ironworkers I ensured that the 14mm gap between the diaphragm sleeve pipe and bracket neoprene was maintained. Also top and bottom dead center of the pipe was compared to the center of the restraint bracket. The worst case delta was approximately 25mm between the restraint bracket and diaphragm pipe sleeve. However the main focus on positioning the restraint



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brackets is to try and eliminate gaps between bracket and the pipe beam. The worst case gap that was found on the approved location of the restraint brackets was 5mm.

Once the bracket position on the pipe beam was approved, the ironworkers proceeded to center punch, mark, and then drill holes for bolt placement. Prior to any centerpunching or marking the pipe beam, the longitudinal position was checked to make sure the pipe didn't move. The ironworkers working on Hinge pipe beam AW-North placed three additional restraint brackets and center punched first two without approval on the following restraint brackets:

Pipe Beam	Diaphragm (East/West face)	Top/Bottom
AW-North	B-West	Bottom
AW-North	A-East	Top
*AW-North	A-East	Bottom

The restraint bracket denoted with an \* was placed but had an excessive gap between the pipe and the bracket of 10mm. I had the ironworkers remove the bracket so that I could inspect the pipe beam. There was a slight depression on the pipe surface near the west side of the bracket which was caused the 10mm gap. I spoke with ABF engineer Andre Makaranian and Paul Jefferson about the issue and decided that the DJV needed to get involved before center punching and drilling commence at this location.

Finally the ironworkers didn't attempt to move the AW-South Hinge A pipe beam due to cloudy conditions all day. It should be noted that the geometric inspection of this work is intermittent. However at this time I am currently assigned and responsible for 4 tasks on the project which are the following:

- 1.) Shear Key/Bearing survey prior to grouting
- 2.) W2 transverse tendon CBT 1-10 duct cleaning, strand placement, stressing, and grouting
- 3.) Hinge A geometry prior to connecting restraint brackets
- 4.) Miscellaneous cable work (i.e. Extensometer, Handrope/messenger cable, deviation saddle bird stop, etc)

I informed Paul that I can't provide continuous structural inspection on this work since I have many items to focus on already.

- Checked on the progress of the Shear Key and Bearing survey prior to grouting operations. ABF engineers Zach Lauria and Levi Gatsos were in the process of surveying the Shear Keys and Bearings with a high precision laser level which I briefly observed. According to Zach the grouting operation is scheduled for approximately 2 weeks from today due to preparations for grouting.

Also went to check on the W2 transverse tendon cleaning, strand placement, stressing, and grouting operations where neither ABF or SDI was working.

- Met with Brian Boal to discuss taking measurements at the west deviation saddle between the top cover plate and the side cover plate bolt configuration. This is being done to potentially add a steel plate to prevent birds from entering this area. I proposed using a net or a steel grating instead of fabricating a steel plate.

- Used the Caltrans CT-2 Extensometer to measure bolt elongations for the following cable bands:

112N, 114N, 116N, 112S, 114S, 116S

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The measurements were taken by myself and John Lyons at the request of Warren Collins. John took all of readings on the analog dial and recorded the number. I positioned/handled the Extensometer on the cable band bolts. Measurements were taken from approximately 3:00pm to 5:00pm. Thermal effects were inconsequential due to the fact that the conditions were cloudy all day long. At 1:50pm the steel temperature was 57F on the W-Line Skyway and the ambient temperature was 52F under cloudy conditions. It should be noted that this Extensometer hadn't been used in awhile. While using Extensometer No. 2 it was discovered that the plunger had to be used to zero out the analog dial. John and myself were diligent about these measurements since the cable band bolts were in the vertical position, the Extensometer hadn't been used in awhile, and the analog (opposed to digital) gauge had to be read.

### Attachment



A 5mm gap was measured between the top of the South E-Line pipe beam, east of diaphragm B.



Punched and marked holes for the restraint bracket for the E-Line North pipe beam east of diaphragm B before drilling operations begin.



Comealongs anchored to the adjacent W-Line Skyway diaphragm on the South side where the top flange may be bent as a result of moving the pipe beam.



A 10mm gap (worst case) was measured between the bottom of the North W-Line pipe beam, east of diaphragm A.

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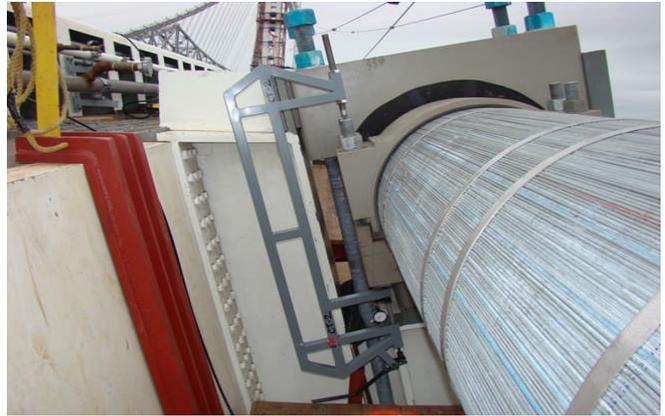
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The first holes drilled in the top of the North E-Line pipe beam, east of diaphragm B.



Orientation of the Extensometer number 2 placed on the easternmost inboard bolt at panel point 116 along the W-Line.