



SAS Superstructure

Location: 04-SF-80-13.2 / 13.9

Client Name: CalTrans

Run date 21-Nov-14

Time 11:26 PM

Daily Diary Report by Bid Item

Contract No.: 04-0120F4

Diary #: 527 Const Calendar Day: 916 Date: 12-Mar-2012 Monday
 Inspector Name: Bruce, Matt Title: Transportation Engineer
 Inspection Type: Continuous
 Shift Hours: 03:30 am 12:00 am Break: 08:30 Over Time: 04:00
 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 0.12" Condition Cloudy w/steady to high winds and light drizzle

Working Day If no, explain:

Diary:

Dispute

Work description.

- Phil Latasa, Sami Dauok, Alex Schmitt, Damon Brown, and myself checked the out to out distance for the cable strands today as Damon's and my measurements are tabulated below. Damon and I were responsible for both the north/south sidespans today. Similarly Sami and Phil were responsible for checking the north/south mainspans. Damon assisted me with the measurements and tabulating the data as I took all of the measurements unless otherwise noted. I used the Maletic gauge (#1) to take the out to out measurements of the cable strands.

All measurements by both crews were reported to Alex who was stationed in the Caltrans conex recording and analyzing the data. When all of the measurements were completed, Alex was responsible for reviewing the measurements with ABF engineer Zach Lauria. See Alex's diary for more details related to the acceptance or rejection of cable strand sag adjustment.

The green dual function anemometer and digital thermometer was used to measure the ambient temperature and wind speeds. Wind speeds were also obtained from weather.com at the time of the measurements. The steel temperature measurements were taken with the digital thermometer placed on the outer cable strand wires.

The official sunrise time per weather.com for San Francisco today was at 7:25am. It should be noted that day-light savings time was implemented yesterday March 11th. The following measurements were taken of the relative sag from cable strand number 1 at the given times below:

// South Sidespan //

Time = 4:32am

Ambient Temperature = 47.6F

Condition = Fair

Wind = SSW @ 2mph

ABF Surveyor(s) = James Allen and Ken Woon

Caltrans Engineer(s) = Matt Bruce and Damon Brown

Cable Strand (mm)	Steel Temperature (F)	O-O (#1) CT / ABF (mm)	Theor (mm)	CT Delta
1	47.8	Baseline or Zero	78	0
89	46.7	732 (-61) = 671 / 677	622	+ 49
90	46.7	703 (-61) = 642 / 650	689	- 47
91	46.0	836 (-61) = 775 / 782	756	+ 19



Daily Diary Report by Bid Item

Job Name: 04-0120F4

Inspector Name Bruce, Matt

Diary #: 527

Date: 12-Mar-2012 Monday

Comments: All cable strands were considered to be free-hanging at the time of measurement on the south sidespan. I took all of the measurements while Damon assisted me with setting up the targets, being level, normal to cable, etc. A timber block was used on cable strand number 1 to obtain all of the measurements where the dimension is in () millimeters. It should be noted once again that at times the bottom blade of the calipers used by ABF surveyors was not bearing properly on the timber block varying the readings taken. The ABF rodman was not fully concentrating during many of measurements taken as this likely is the reason for discrepancies between the two groups. This issue was brought up with the ABF foreman surveyor yet again.

// North Sidespan //

Time = 4:57am

Ambient Temperature = 47.6F

Condition = Fair

Wind = SSW @ 2mph

ABF Surveyor(s) = James Allen and Ken Woon

Caltrans Engineer(s) = Matt Bruce and Damon Brown

Cable Strand (mm)	Steel Temperature (F)	O-O (#1) CT / ABF (mm)	Theor (mm)	CT Delta
1	46.9	Baseline or Zero	78	0
90	46.5	872 (-61) = 811 / 818	689	+ 122
90*	46.5	771 (-61) = 710 / 713	689	+ 21
90*	46.5	750 (-61) = 689 / 695	689	0
91	46.4	938 (-61) = 877 / 879	753	+ 124
91*	46.4	818 (-61) = 757 / 762	753	+ 4
91*	46.4	813 (-61) = 752 / 758	753	- 1

Comments: All cable strands were considered to be free-hanging at the time of measurement on the north sidespan. I took all of the measurements while Damon assisted me with setting up the targets, being level, normal to cable, etc. A timber block was used on cable strand number 1 to obtain measurements where the dimension is in () millimeters. The cable strands with an * next to the number denotes that the measurements were taken immediately after ABF ironworkers performed a real time adjustment on the cable strand. Once the cable strand was adjusted ABF surveyors would take a measurement followed by Caltrans engineers. Numbers amongst the two groups were compared to expedite final buy-off. The ABF ironworkers would not wait for myself and Damon to take measurements when removing the strand adjuster grips at the tower. This discourtesy made the strand that we were trying to measure excessively wobble. This issue was brought up to Alex who in turn discussed the issue with ABF engineer Zach Lauria who was at the top of the tower supervising these ironworkers.

// South Sidespan //

Time = 5:51am

Ambient Temperature = 45.3F

Condition = Fair

Wind = SSE @ 1mph

ABF Surveyor(s) = James Allen and Ken Woon

Caltrans Engineer(s) = Matt Bruce and Damon Brown

Cable Strand (mm)	Steel Temperature (F)	O-O (#1) CT / ABF (mm)	Theor (mm)	CT Delta
1	47.3	Baseline or Zero	78	0
89*	46.0	687 (-61) = 626 / 619	622	+ 4
90*	46.0	759 (-61) = 698 / 701	689	+ 9
90*	46.0	756 (-61) = 695 / 698	689	+ 6
90*	46.0	754 (-61) = 693 / 695	689	+ 4
91*	46.4	812 (-61) = 751 / 753	756	- 5



Daily Diary Report by Bid Item

Job Name: 04-0120F4

Inspector Name Bruce, Matt

Diary #: 527

Date: 12-Mar-2012 Monday

Comments: All cable strands were considered to be free-hanging at the time of measurement on the south sidespan except for cable strand 89 which was bearing on 79 after the adjustment. I took all of the measurements while Damon assisted me with setting up the targets, being level, normal to cable, etc. A timber block was used on cable strand number 1 to obtain all of the measurements where the dimension is in () millimeters. The cable strands with an * next to the number denotes that the measurements were taken immediately after ABF ironworkers performed a real time adjustment on the cable strand. Once again ABF ironworkers would not let us complete our measurement prior to removing the strand adjuster grips.

- All of the prescribed measurements were completed at 6:30am and conveyed to Alex. As mentioned in the comments section of the measurement tabulations, live adjustments were performed by ABF ironworkers. An adjustment would be made and then ABF surveyors and Caltrans engineers would measure the cable strand to verify the correct sag adjustment was done before moving on to adjusting another strand. The ironworkers began their shift at 5:00am at the tower saddle and at the east anchorages. See Roman Granados's diary for comments, labor, and equipment at the tower saddle. See Bob Brignano's diary for comments, labor, and equipment at the east anchorage.

- Completed filling out the daily cable strand sag adjustment sheet.

- Shot the X,Y, & Z coordinates of the first two rows of points on the YBITS W-Line bridge to confirm the tie-down geometry after jacking operations last week with the assistance of Damon Brown. The automatic level was used for the elevations or Z-coordinate, and the total station was used for the X & Y coordinates shot from TWL270. It should be noted that the ABF prism was used when backsighting control point E2.

- Shot the elevations using the automatic level at the request of Paul Jefferson for the bikepath panel cross-slope with the assistance of Damon Brown. The data would be used for the polyester overlay corrections as the panels will have shims to ensure proper bearing on the OBG bracket. The center railing section in between the bikepath panel joints were shot on the outer most corner. The bikepath panels shot were from panel point 23 to 41. Began to reduce the measurements taken of this level run.

- Began to prepare for surveying the W-Line suspender brackets tonight/early tomorrow morning.

- Shot the W-Line suspender brackets using the total station with the assistance of Sami Daouk and Damon Brown. Preparation for the survey started at 9:00pm tonight March 12th, and the survey went into the early morning tomorrow Tuesday March 13th. The suspender brackets from panel point 12 to 110 were shot along the W-Line OBG along with a few check shots over to the E-Line suspender brackets to tie-in the two surveys. The wind was steady through the night/early morning and wind speeds reached 20mph according to weather.com. However the winds were coming from the south and we were shooting the W-Line suspender brackets on the north side of the bridge. The locations where the total station was set up was fairly protected from the moderate to high winds as obstructions diverted and dissipated the wind. Also the corner cube was used for most of the shots essentially eliminating plumbness of the target out of the equation. The survey was completed at or around 2:30am on Tuesday March 13th.

- Prepared for this mornings cable strand adjustments after surveying the W-Line suspender brackets.

- Myself and Damon began our shift today at 3:30am and stopped at 1:00pm with a 30minute break in between (9hrs), then resumed our shift at 9:00pm until 12:00am (3hrs) for a total of 12hrs.