



Daily Diary Report by Bid Item

Contract No.: 04-0120F4

Diary #: 525 Const Calendar Day: 913 Date: 09-Mar-2012 Friday
 Inspector Name: Bruce, Matt Title: Transportation Engineer
 Inspection Type: Continuous
 Shift Hours: 12:00 am 08:30 am Break: 00:30 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 40 - 50 12 PM 50 - 60 4PM 60 - 70
 Precipitation 0.00" Condition Partly cloudy

Working Day If no, explain:

Diary:

Dispute

Work description.

- Shot the suspender brackets along the E-line OBG and a few on the W-Line OBG with the assistance of Damon Brown. Preparation for the survey started at 10:00pm last night Thursday March 8th, and the survey went into the early morning today Friday March 9th. To reiterate the suspender brackets from panel point 12 to 110 were shot along the E-Line OBG as were panel points 64 and 84 along the W-Line OBG.

- Prepared for this mornings cable strand adjustments with Damon Brown.

- Myself and Damon began our shift today at 12:00am today and stopped at 8:30am (8hrs).

- 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 Adam Roebuck. 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 6:26am. The following measurements were taken of the relative sag from cable strand number 1 at the given times below:

// South Sidespan //

Time = 4:30am

Ambient Temperature = 46.6F

Condition = Partly cloudy

Wind = N @ 0mph

ABF Surveyor(s) = James Allen and Ken Woon

Caltrans Engineer(s) = Matt Bruce and Damon Brown



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Cable Strand (mm)	Steel Temperature (F)	O-O (#1) CT / ABF (mm)	Theor (mm)	CT Delta
1	48.2	Baseline or Zero	78	0
83	47.4	887 / 883	822	+ 65
83*	47.4	809 / 813	822	- 13
83*	47.4	813 / 819	822	- 9
84	48.7	247 (-58) = 189 / 200	287	- 98
84*	48.7	343 (-61) = 282 / 290	287	- 5
85	48.5	453 (-58) = 395 / 407, 393	354	+ 41
85*	48.5	430 (-61) = 369 / N/A	354	+ 15
85*	48.5	422 (-61) = 361 / 356	354	+ 7

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. Cable strand number 29 was used as the reference strand for the measurements above with a delta of -58 from cable strand number 29 to 1. The * denotes that the measurements were taken immediately after "Live Adjustments" were made by the ABF ironworkers. The ABF surveyors would first take measurements while Caltrans engineers would measure right after them to compare numbers and expedite the buy-off of cable strand sag adjustments.

// North Sidespan //

Time = 6:19am

Ambient Temperature = 46.1F

Condition = Sunny as the sun was rising at the start of these measurements

Wind = N @ 0mph

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	47.6	Baseline or Zero	78	0
83	46.9	814 / 817	815	- 1
84++	46.5	333, 295 / 300	300	- 5
85	46.7	366 / 362	365	+ 1

Comments: Cable strand numbers 83 and 85 were considered to be free-hanging at the time of measurement on the north sidespan. The ironworkers performed a "Live Adjustment" just prior to all of the measurements above. No "Preliminary" measurements were taken since ABF's plan wasn't clear as to which side they would begin the "Live Adjustments".

Cable strand number 84 was flagged w/++ since the measurement is deceiving. After cable strand number 84 was adjusted the first time the measurement was 333mm. Strand 86 was bearing directly on the strand below it after this adjustment. At this point the strand couldn't be adjusted further. ABF surveyors were then directed by ABF engineers to move cable strand number 74 to the north. I cautioned the surveyors that the cable strands were not per plan and to radio this message to the engineers. I told Alex of this situation while reciting the cable strand measurements to him.

I took all of the measurements while Damon assisted me with setting up the targets, being level, normal to cable, etc. As done on the south sidespan the ABF ironworkers performed a real time adjustments on the north sidespan cable strands prior to measuring.

// North West-Loop //

Time = 6:59am

Ambient Temperature = 50.1F

Condition = Partly cloudy



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Date: 09-Mar-2012 Friday

Wind = N @ 0mph

ABF Engineer(s) or Surveyor(s) = None at this time

Caltrans Engineer(s) = Matt Bruce and Damon Brown

Cable Strand (mm)	Steel Temperature (F)	O-O (#1Y) CT (mm)	Theor (mm)	CT Delta
1	50.1	Baseline or Zero	80	0
84	49.4	259 (-126) = 133	127	+ 6
85	50.0	363 (-126) = 237	221	+ 16
86	49.6	454 (-126) = 328	316	+ 12

Comments: All cable strands were considered to be free-hanging at the time of measurement on the north west-loop. I took all of the measurements while Damon assisted me with setting up the targets, being level, normal to cable, etc. The () denotes the fixed timber block (by ABF) to cable strand number 1 dimension in millimeters.

// South West-Loop //

Time = 7:10am

Ambient Temperature = 49.8F

Condition = Partly cloudy

Wind = N @ 0mph

ABF Engineer(s) or Surveyor(s) = None at this time

Caltrans Engineer(s) = Matt Bruce and Damon Brown

Cable Strand (mm)	Steel Temperature (F)	O-O (#1Y) CT (mm)	Theor (mm)	CT Delta
1	49.4	Baseline or Zero	80	0
84	49.2	246 (-121) = 125	127	- 2
85	50.0	358 (-121) = 237	221	+ 16
86	49.6	443 (-121) = 322	316	+ 6

Comments: All cable strands were considered to be free-hanging at the time of measurement on the south west-loop. I took all of the measurements while Damon assisted me with setting up the targets, being level, normal to cable, etc. The () denotes the fixed timber block (by ABF) to cable strand number 1 dimension in millimeters.

- All of the prescribed measurements were completed at 7:20am 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 4:00am 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.