



### SAS Superstructure

Location: 04-SF-80-13.2 / 13.9

Client Name: CalTrans

Run date 21-Nov-14

Time 11:28 PM

## Daily Diary Report by Bid Item

Contract No.: 04-0120F4

Diary #: 513 Const Calendar Day: 901 Date: 26-Feb-2012 Sunday

Inspector Name: Bruce, Matt Title: Transportation Engineer

Inspection Type: Continuous

Shift Hours: 02:30 am 11:00 am Break: 00:30 Over Time: 08:00

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 Partly Cloudy with moderate winds

Working Day  If no, explain:

### Diary:

Dispute

#### Work description.

- Phil Latasa, Sami Dauok, Alex Schmitt, Daryoush Bahar, and myself checked the out to out distance for the cable strands today as Sami's and my measurements are tabulated below. Sami and I were responsible for both the north/south mainspans today. Similarly Daryoush and Phil were responsible for checking the north/south sidespans and the west-loop. Sami 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 Connex 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.

Ambient temperatures were taken with the red temperature gauge. Wind speeds were 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 6:46am. The following measurements were taken of the relative sag from cable strand number 1 at the given times below:

// South Sidespan //

Time = 2:45am

Ambient Temperature = 43.2F

Condition = Partly Cloudy

Wind = N @ 9mph

ABF Surveyor(s) = None at this time

Caltrans Engineer(s) = Matt Bruce and Sami Daouk

Cable Strand	Steel Temperature (F)	O-O (#1) CT (mm)	Theor (mm)	CT Delta (mm)
1	45.1	Baseline or Zero	78	0
49	45.2	405 (-61), 401 (-61) = 342	351	- 9
50	45.5	453 (-61), 456 (-61) = 394	418	- 24
55	44.9	216 (-61), 218 (-61) = 156	151	+ 5
56	45.1	274 (-61), 269 (-61) = 211	218	- 7
57	45.2	319 (-61) = 258	285	- 17
58	45.1	455 (-61) = 394	352	+ 42
59	45.0	519 (-61) = 458	419	+ 39



## Daily Diary Report by Bid Item

Job Name: 04-0120F4    Inspector Name Bruce, Matt    Diary #: 513    Date: 26-Feb-2012    Sunday

60	44.8	540 (-61) = 479	486	- 7
61	44.3	711 (-61) = 650	553	+ 97
62	44.0	759 (-61) = 698	619	+ 79

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 Sami assisted me with setting up the targets, being level, normal to cable, etc. Cable strand number 63 was floated overhead. 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 that these measurements were taken prior to ABF ironworkers adjusting any of the cable strands on the span. We wanted to obtain measurements at this location before any cable strands were buried by adjusting operations.

- I relayed the numbers to Alex at 3:30am conveying that cable strand free hang needed to be checked at/near the tower by Saman when he arrived to the jobsite. Sami and myself decided to proceed to the north mainspan since the bulk of the adjustments were being done on that side of the bridge.

// North Mainspan //

Time = 3:41am

Ambient Temperature = 43.1F

Condition = Partly Cloudy

Wind = NNE @ 8mph

ABF Surveyor(s) = Terry Denis and Mike Bonidici

Caltrans Engineer(s) = Matt Bruce and Sami Dauok

Cable Strand	Steel Temperature (F)	O-O (#1) CT (mm)	Theor (mm)	CT Delta (mm)
1	44.6	Baseline or Zero	75	0
49	44.0	362, 360 - Ave = 361	356	+ 5
50	43.8	410	413	- 3
51	43.4	584 (-120) = 464	470	- 6
52	43.3	576 (-52) = 524	527	- 3
53	43.3	582	584	- 2
54	43.0	649	641	+ 8
55	43.0	177*, 191	195	-18, - 4
56	43.5	251*, 250* - Ave = 251*, 239	252	- 1, -13
57	42.5	312*, 301	308	+ 4, -7
58	42.8	482*, 355	365	+117, - 10
59	43.0	576	422	+ 154
60	43.0	542	479	+ 63
61	42.9	621	536	+ 85

Comments: All cable strands were considered to be free-hanging at the time of measurement on the north mainspan. I took all of the measurements while Sami assisted me with setting up the targets, being level, normal to cable, etc. Cable strand number 62 was floated overhead. Measurements at this location were done in conjunction with ABF surveyors. Numbers were verbally exchanged but not recorded since most of them were close. Measurements with an \* denote that a preliminary measurement was taken prior to ABF ironworkers adjusting the cable strand sag from either the tower or the east end anchorage. I was in constant communication with Bob Brignano, Alex, and ABF surveyors as to when an adjustment was made to expedite the cable strand sag measurements. The Maletic gauge (#1) was inverted for measurements on cable strand numbers 49, 50, 51, 52, and 53. For cable strand numbers 51 and 52 which were buried in the strand bundle a second reference strand was used. The target was placed on cable strand number 1 and from the second reference strand and the inverted gauge flat plate a measurement was taken with a stainless steel ruler to the top of the measured strand.

- All of the initial measurements prior to adjustment at this location were completed by 5:12am and the second set of measurements which were completed at 5:42am. This is the time when I conveyed the information to Alex.

## Daily Diary Report by Bid Item

Job Name: 04-0120F4

Inspector Name Bruce, Matt

Diary #: 513

Date: 26-Feb-2012 Sunday

// South Mainspan //

Time = 5:47am

Ambient Temperature = 43.2F

Condition = Partly Cloudy

Wind = N @ 6mph

ABF Surveyor(s) = Terry Denis and Mike Bonidici

Caltrans Engineer(s) = Matt Bruce and Sami Dauok

Cable Strand	Steel Temperature (F)	O-O (#1) CT (mm)	Theor (mm)	CT Delta (mm)
1	43.3	Baseline or Zero	76	0
47	43.0	325 (-90) = 235	239	- 4
49	43.2	464 (-37) = 427*, 360	356	+71, + 4
50	44.0	621(-238) = 383*, 416	415	-32, + 1
51	43.3	693 (-186) = 507*, 700 (-216) = 484	474	+33, + 10
52	42.9	693 (-137) = 556*, 700 (-158) = 542	532	+14, + 10
53	42.6	693 (-123) = 570*, 700 (-182) = 518	591	-21, - 73
54	42.7		655 650	+ 5
55	43.4	272*, 188	188	+84, 0
56	43.0		254 247	+ 7
57	43.0		488 306	+ 182
58	42.7		503 364	+ 139

Comments: All cable strands were considered to be free-hanging at the time of measurement on the south mainspan. I took all of the measurements while Sami assisted me with setting up the targets, being level, normal to cable, etc. Cable strand numbers 59 and above were not measured by ABF therefore we abandoned measuring these cable strands. Measurements at this location were done in conjunction with ABF surveyors. Numbers were verbally exchanged but not recorded since most of them were close. Measurements with an \* denote that a preliminary measurement was taken prior to ABF ironworkers adjusting the cable strand sag from either the tower or the east end anchorage. I was in constant communication with Bob Brignano, Alex, and ABF surveyors as to when an adjustment was made to expedite the cable strand sag measurements. The Maletic gauge (#1) was inverted for measurements on cable strand numbers 47, 49, 50, 51, 52, 53, and 54. For these cable strands which were buried in the strand bundle a second reference strand was used. The target was placed on cable strand number 1 and from the second reference strand and the inverted gauge flat plate a measurement was taken with a stainless steel ruler to the top of the measured strand.

- All measurements at this location were completed by 6:55am which is when I conveyed the information to Alex. After all the measurements were completed, both crews awaited any arbitrary measurements that possibly could be taken. See Bob Brignano and Saman Soheilifard's comments at the east anchorage and tower saddles for comments related to the adjustment, equipment, and labor.

- Continued to write yesterdays and began to write todays diaries which will be important documentation given the circumstances and possible ramifications from the events that took place.

- Began to compile all my measurements taken today on the daily cable strand sag adjustment sheets.

Attachment



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Job Name: 04-0120F4

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Sunday



Cable strand number 63 on the SSS was close to bearing on the cable strand bundle which almost effected measurements on required strand measurements.



The south sidespan cable strand bundle where there were buried strands.