SIMPSON GUMPERTZ & HEGER
Engineering of Structures
and Building Enclosures

23 April 2014

Mr. Eric Dausman
General Manager
Sutro Tower Inc.
1 La Avanzada
San Francisco, CA 94131-1124

Project 067199 – Sutro Tower Structural Engineering Services

Re: 2013 Annual Inspection and Maintenance Program

Dear Eric:

Since 1999, Sutro Tower has retained a special inspection firm to perform annual condition surveys of the tower framing in accordance with a City-approved protocol. Each annual survey consists of visual observation of structural framing and connections, as well as attachments of antenna and other appurtenances on one tower face, at all elevations and in one tower leg. These surveys are performed on a rotating basis such that the entire tower is inspected on a three-year cycle, one third of the tower per year. When these surveys have revealed deterioration of the structure due to weather exposure or other causes, we have assisted you in designating appropriate structural repair and preservation items.

In the past, CEL Consulting Engineers provided the inspection service. In 2013, you elected to retain Tower Consultants Inc. (TCI) to perform this service. TCI specializes in communication tower structures and has the capability to rig the structure with drop scaffolding and similar access devices that permit observation of conditions that had previously been inaccessible.

In 2013, TCI performed a routine annual inspection of Leg B, the east face trusses and strands, and Stack B located above the 6th level. In addition, TCI rigged scaffolding beneath the Level 2 trusses, removed siding on these trusses and performed comprehensive surveys of the condition of framing that had hitherto been obscured from inspection. TCI's surveys of this included caliper measurements of member section loss, where this occurred, and detailed photography of observed conditions. As TCI performed these surveys, SGH performed calculations to determine whether corrosion has compromised the structure's integrity. We determined that all of the members retain adequate capacity. However, where corrosion was found, we directed removal of oxidized material, and treatment with preservative coating. In addition, a number of bolts with significant corrosion were replaced at this level.

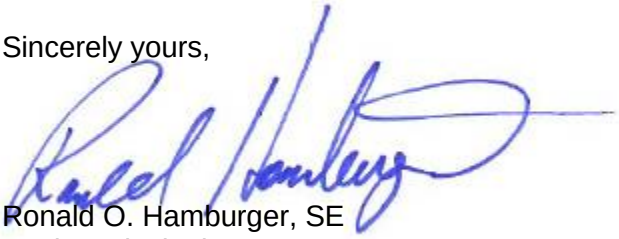
The findings of TCI's annual inspections of Leg B, Stack B and the east tower face are documented in a TCI letter report dated 16 December 2013. As noted in this report, TCI observed several conditions requiring attention including additional corroded fasteners, a few corroded gusset plates, and two bent members. In addition, we identified that some corrosion was occurring as a result of the way siding attachments to the structure are detailed, permitting pockets of water to form, and also that weep holes intentionally placed in horizontal framing are

initiation points for corrosion. Working with TCI we have developed improved details for these conditions which should minimize such corrosion in the future.

We understand that TCI and repair crews will be mobilizing to the site shortly to implement repairs of conditions discovered during the 2013 inspections, and also to perform the 2014 annual inspections. We will continue to work with TCI to develop repair actions for deteriorated conditions, as they are discovered.

Please feel free to contact us if you have any questions on the above.

Sincerely yours,



Ronald O. Hamburger, SE
Senior Principal
CA License S-2951 (Structural)
I:\SF\Projects\2006\067199.11-COND\WP\004ROHamburger-L-067199.11.jdi_Maintenance Completion.docx

December 16, 2013

Sutro Tower, Inc.
1 La Avanzada Street
San Francisco, CA 94131-1124

Attention: Mr. Eric Dausman

Re: **Field Evaluation of Existing**
977-Foot Self-Support Tower
San Francisco, California
TCI Project Number 13.082.001

Dear Mr. Dausman,

We are pleased to submit our report on the field observation of the above referenced self-support tower.

Authorization / Purpose:

Tower Consultants Incorporated was retained by Sutro Tower Company to conduct a field observation of the 977-foot self-support tower.

The purpose of the field observation was to visually evaluate the condition and structural integrity of the tower. A routine inspection was performed of leg B, the east face trusses, the strands and the leg B base and stack B above the 6th level.

The tower is located in San Francisco, California. J. Altmyer, P.E. & Y. Kabatski performed the site observations between the dates of September 27th through November 12th, 2013.

Field Observations:

The inspection consisted of a tower climb and visual examination of the tower members, connections, antennas, feed lines and mounting hardware. Only those members that could be seen with binoculars and the naked eye were inspected. There are some areas on the faces and legs that were covered by skin and could not be inspected.

The structural elements of the tower appear to be in fair condition, with only a few bent members, loose bolts, short bolts or other deficiencies. There are areas of the tower where rust has formed on the tower member surfaces. In the open areas of the tower faces on levels 5 and 6 there are just a few small areas of minor corrosion on the tower members. At level 2, rust was found where the skin was attached to the main beams leading to varying degrees of

East Coast: 15 Surrey Court, Columbia, South Carolina 29212 Phone: (803) 407-8489 Fax: (803) 407-8691
West Coast: 19711 64th Avenue W., Suite A, Lynnwood, Washington 98036 Phone: (425) 778-5169 Fax: (425) 778-5103

material loss. A few gusset plates showed serious degradation due to corrosion in leg B between levels 1 and 2. There are many corroded fasteners throughout the tower height and some are corroded to the point where steel layers have flaked off leading to rounding of the nut which is a condition that requires bolt replacement. The tower skin showed no distress.

The strands are in fair condition; however, the strand wires between levels 1 and 2 and levels 3 and 4 had bulging strands. Between levels 4 and 5 there is a strand end connection that has shown movement in the end connection socket. There is a gap in the socket that has to be filled with sealant in order to prevent water retention which will lead to corrosion. Minor rust was seen on strands between levels 5 and 6. The strand wires appeared to be tensioned properly. Minor rust was seen on the strand connection hardware. The wires for the antenna B stack were vibrating. The vibrations created gaps in the sealant at the end connections that need to be resealed to prevent water accumulation.

The base of leg B is in satisfactory condition; however, minor rust was observed on the leg, leg gussets, base plates and base plate welds. The exposed surfaces of the concrete foundation at the tower base are in good condition. The tower base is properly grounded.

The climbing facilities and platforms were secure and appear to be in good condition with some minor exceptions. The following items were noted:

- Some climb ladder connection bolts are rusted.
- The safety cable connection inside leg B had rusted hardware.
- There is an improper top safety climb connection inside leg B at level 6.
- The grating support at level 6 has short bolts and bolts that are missing nuts.

The tower lighting system appears to be in good condition with some minor exceptions. All of the lighting levels are operational and synchronized. The following items were noted:

- The lighting conduits and conduit hardware are typically rusted throughout the tower height.
- There is a cut and abandoned conduit on the tower.
- Two conduit connectors are broken.
- One of the junction boxes is open.
- There is a broken connector for one of the beacon flex lines.

The antennas, transmission lines and associated mounting hardware appear to be in fair condition. The following items were noted:

- Some rigid lines had broken spring hangers.
- Many rigid lines have rusted spring hangers.
- There are cut and abandoned lines in some locations.
- Some line support rails are rusted.

East Coast: 15 Surrey Court, Columbia, South Carolina 29212 Phone: (803) 407-8489 Fax: (803) 407-8691
West Coast: 19711 64th Avenue W., Suite A, Lynnwood, Washington 98036 Phone: (425) 778-5169 Fax: (425) 778-5103

- There are many loose feed lines that are poorly connected to the tower.
- A frame connection between levels 5 and 6 is missing bolts and nuts.

For detailed information see the attached inspection data sheets and photo logs.

Should you have any questions or wish to discuss any aspect of this report, please do not hesitate to contact the undersigned.

Sincerely,

Digitally signed by Jeff Altmyer
DN: cn=Jeff Altmyer, email=jaltmyer@tower-tci.com, o=Tower Consultants Inc., ou=Lynnwood Office, c=US
Date: 2013.12.18 15:05:02 -08'00'

Jeff Altmyer, P.E.
Tower Engineer
Tower Consultants Incorporated

East Coast: 15 Surrey Court, Columbia, South Carolina 29212 Phone: (803) 407-8489 Fax: (803) 407-8691
West Coast: 19711 64th Avenue W., Suite A, Lynnwood, Washington 98036 Phone: (425) 778-5169 Fax: (425) 778-5103

Inspection Summary- Year 2013

Description of Inspection:

- Routine inspection of Leg B
- Routine inspection of horizontal braces on East face
- Routine inspection of strands on East face
- Routine inspection of strand anchors on Leg B
- Routine inspection of the Leg D base

Special or In-Depth Inspections: None

Summary of Results:

Pocked fasteners, two bent Members and a few rocks or short bolts. Rusted members and a few severely rotted gussets. Strand wires with bulging strands Minor rust on some strands. Pocked climb ladder and safety cable hardware, conduit and conduit hardware. Loose feed lines in many locations.

Summary of Recommendations: See report text

Checklist:

- Has a severe event occurred since the previous inspection ? Yes (No)
- Have action items and recommendations from previous inspections been addressed in the scope of work ? (Yes) No
- Has the inspection log for future years been revised to account for scope of work and findings of the inspection ? (Yes) No

Signature: _____

Date: 11/1/13

Inspection Data Sheet: Antenna Mount Stack "[illegible]" ([illegible])

Observ. No.	Location/Identification			Photo No.	Observation Comments
	Column	Elevation	Item[1]		
1	[illegible]	[illegible]	[illegible]	1	[illegible]
2	[illegible]	[illegible]	[illegible]	2	[illegible]
3	[illegible]	[illegible]	[illegible]	3	[illegible]
4	[illegible]	[illegible]	[illegible]	4	[illegible]
5	[illegible]	[illegible]	[illegible]	5	[illegible]
6	[illegible]	[illegible]	[illegible]	6	[illegible]
7	[illegible]	[illegible]	[illegible]	7	[illegible]
8	[illegible]	[illegible]	[illegible]	8	[illegible]
9	[illegible]	[illegible]	[illegible]	9	[illegible]
10	[illegible]	[illegible]	[illegible]	10	[illegible]
11	[illegible]	[illegible]	[illegible]	11	[illegible]

Sutro Tower	[illegible]	Page 1 of 1
San Francisco, CA	[illegible]	[illegible]

[1] [illegible]

Photo 01.JPG
9/26/2013

Photo 02.JPG
9/26/2013

Photo 03.JPG
9/26/2013

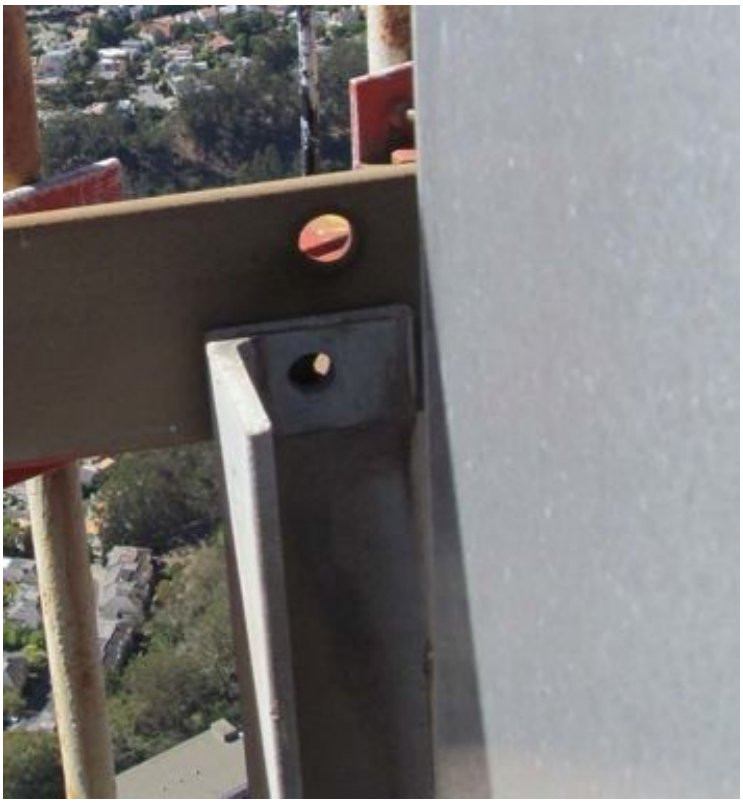


Photo 04.JPG
9/26/2013

Antenna Mount Stack “B” (Level 6 to base of antenna)

Photo 05.JPG
9/26/2013

Photo 06.JPG
9/26/2013

Photo 07.JPG
9/26/2013

Photo 08.JPG
9/26/2013

Antenna Mount Stack “B” (Level 6 to base of antenna)

Photo 09.JPG
9/26/2013

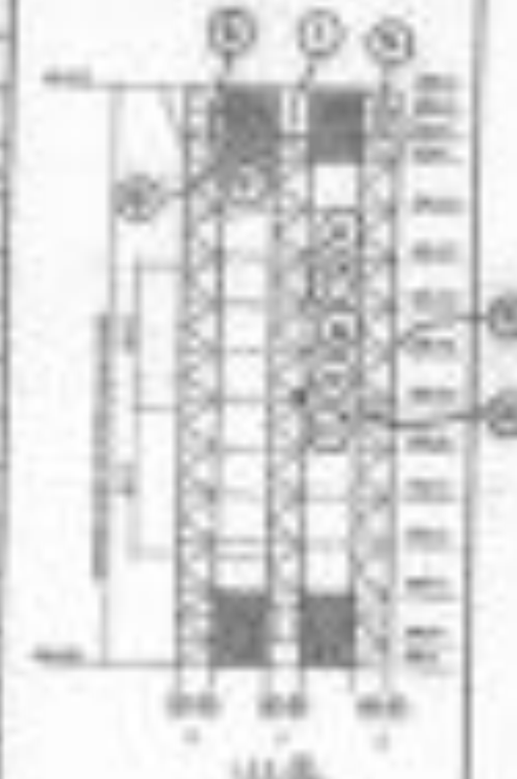
Photo 10.JPG
9/26/2013

Photo 11.JPG
9/26/2013

Antenna Mount Stack “B” (Level 6 to base of antenna)

Inspection Data Sheet: Leg D (Level 5 to Level 6)

[illegible]	[illegible]			[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]		
1	[illegible]	6.1	D	1	[illegible]
2	[illegible]	6	[illegible]	2	[illegible]
3	[illegible]	6.1	D	3	[illegible]
4	[illegible]	6	C	4	[illegible]
5	[illegible]	6	C	5	[illegible]
6	[illegible]	[illegible]	C	6	[illegible]
7	[illegible]	[illegible]	[illegible]	7	[illegible]
8	[illegible]	[illegible]	[illegible]	8	[illegible]
9	[illegible]	[illegible]	D	9	[illegible]
10	[illegible]	[illegible]	[illegible]	10	[illegible]
11	[illegible]	[illegible]	C	11	[illegible]
12	[illegible]	[illegible]	[illegible]	12	[illegible]



[illegible] Tower	[illegible]	Page [illegible]
San Francisco, CA	[illegible]	Date [illegible]

[illegible]

Photo 1.JPG
9/27/2013

Photo 2.JPG
9/27/2013

Photo 3.JPG
9/27/2013

Photo 4.JPG
9/27/2013

Leg B (Level 5 to Level 6)

Photo 5.JPG
9/27/2013

Photo 6.JPG
9/27/2013

Photo 7.JPG
9/27/2013

Photo 8.JPG
9/27/2013

Leg B (Level 5 to Level 6)

Photo 9.JPG
9/27/2013

Photo 10.JPG
9/27/2013

Photo 11.JPG
9/27/2013

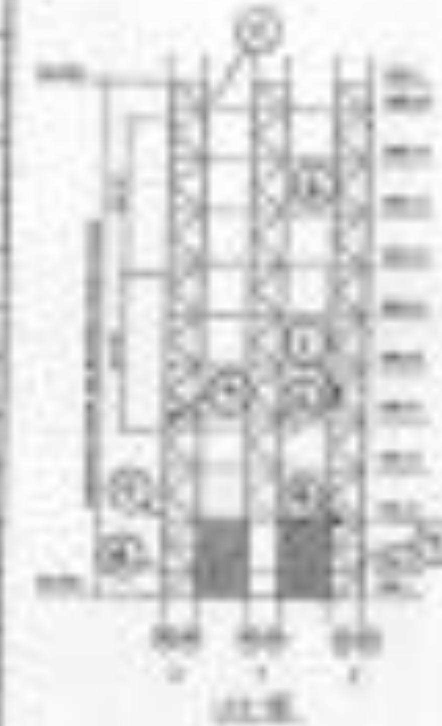
Photo 12.JPG
9/27/2013

Leg B (Level 5 to Level 6)

Inspection Data Sheet: Log 8 (Level 4 to Level 8)

[illegible]	[illegible]			[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]		
1	[illegible]	[illegible]	[illegible]	1	[illegible]
2	[illegible]	[illegible]	[illegible]	2	[illegible]
3	[illegible]	[illegible]	C	3	[illegible]
4	[illegible]	[illegible]	[illegible]	4	[illegible]
5	[illegible]	[illegible]	C	5	[illegible]
6	[illegible]	[illegible]	[illegible]	6	[illegible]
7	[illegible]	[illegible]	[illegible]	7	[illegible]
8	[illegible]	[illegible]	D	8	[illegible]
9	[illegible]	[illegible]	[illegible]	9	[illegible]

Sutro Tower	[illegible]	Page 1 of 1
San Francisco, CA	[illegible]	[illegible]



[illegible]

Photo 1.JPG
10/17/2013

Photo 2.JPG
10/17/2013

Photo 3.JPG
10/17/2013

Photo 4.JPG
10/17/2013

Leg B (Level 4 to Level 5)

Photo 5.JPG
10/17/2013

Photo 6.JPG
10/17/2013

Photo 7.JPG
10/17/2013

Photo 8.JPG
10/17/2013

Leg B (Level 4 to Level 5)

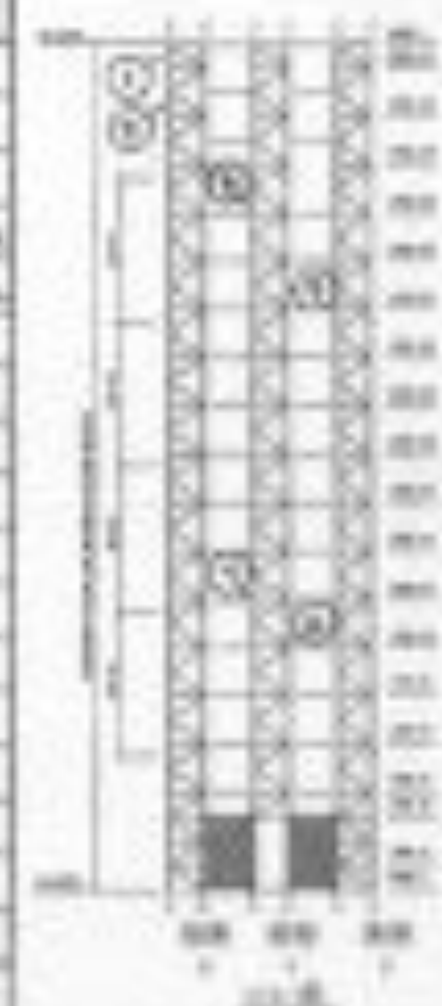
Photo 9.JPG
10/17/2013

Leg B (Level 4 to Level 5)

Inspection Data Sheet: Log B (Level 3 to Level 4)

[illegible]	[illegible]			[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]		
1	[illegible]	[illegible]	[illegible]	1	[illegible]
2	[illegible]	[illegible]	[illegible]	2	[illegible]
3	[illegible]	[illegible]	[illegible]	3	[illegible]
4	[illegible]	[illegible]	[illegible]	4	[illegible]
5	[illegible]	[illegible]	[illegible]	5	[illegible]
6	[illegible]	[illegible]	[illegible]	6	[illegible]

Sutro Tower	[illegible]	Page 1 of 1
San Francisco, CA	[illegible]	[illegible]



[illegible]

Photo 01.JPG
10/17/2013

Photo 02.JPG
10/17/2013

Photo 03.JPG
10/17/2013

Photo 04.JPG
10/17/2013

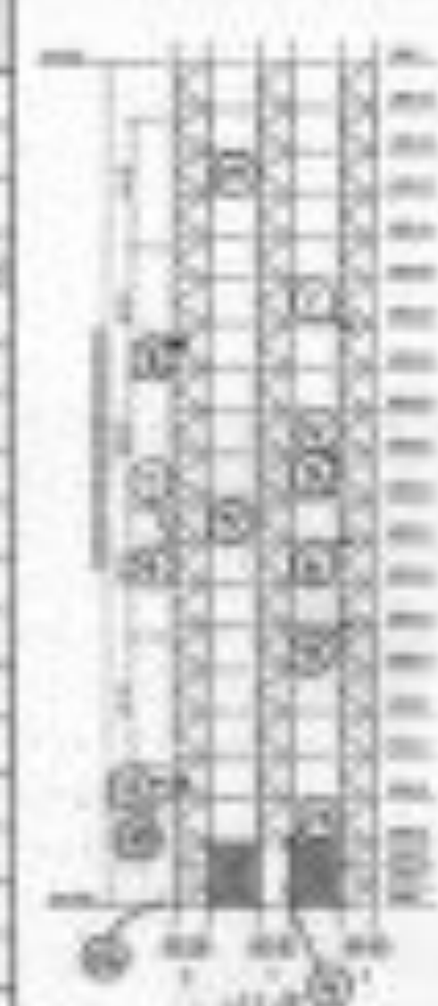
Leg B (Level 3 to Level 4)

Photo 05.JPG
10/17/2013

Photo 06.JPG
10/17/2013

Inspection Data Sheet: Leg B (Level 2 to Level 3)

Defect No.	Location Identification			Photo No.	Description / Comments
	Column	Elevation	Side*		
1	B-Face	[illegible]	C	1	[illegible]
2	B-Face	[illegible]	C	2	[illegible]
3	B-Face	[illegible]	[illegible]	3	[illegible]
4	B-Face	[illegible]	[illegible]	4	[illegible]
5	[illegible]	[illegible]	C	5	[illegible]
6	B-Face	[illegible]	C	6	[illegible]
7	[illegible]	[illegible]	[illegible]	7	[illegible]
8	[illegible]	[illegible]	[illegible]	8	[illegible]
9	B-Face	[illegible]	[illegible]	9	[illegible]
10	[illegible]	[illegible]	[illegible]	10	[illegible]
11	[illegible]	[illegible]	[illegible]	11	[illegible]
12	[illegible]	[illegible]	[illegible]	12	[illegible]
13	[illegible]	[illegible]	C	13	[illegible]
14	[illegible]	[illegible]	[illegible]	14	[illegible]
15	[illegible]	[illegible]	[illegible]	15	[illegible]



Sutro Tower	Inspector:	Page 1 of 1
San Francisco, CA	File:	Date: [illegible]

* [illegible]

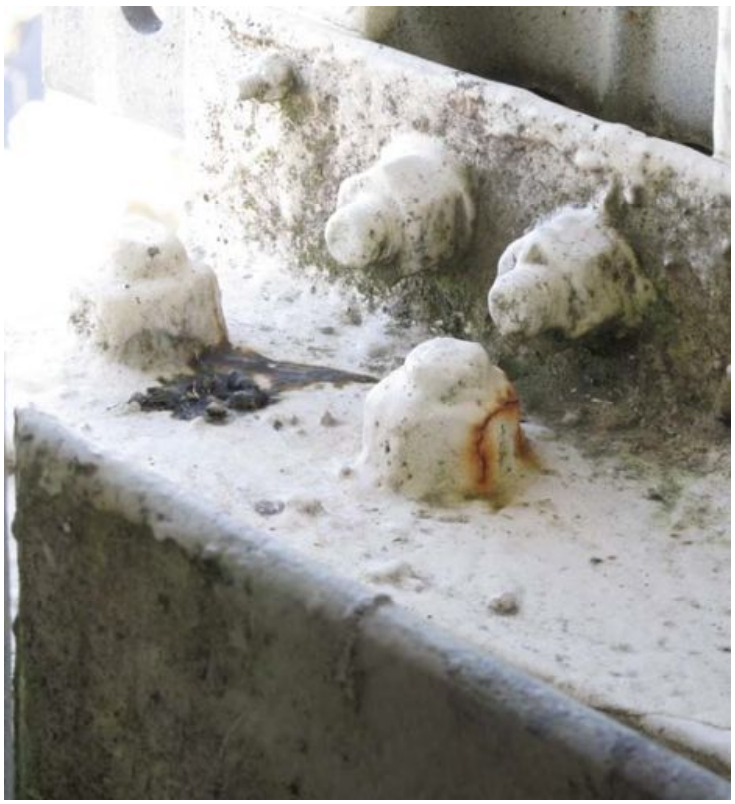


Photo 1.JPG
10/17/2013

Photo 2.JPG
10/17/2013

Photo 3.JPG
10/17/2013

Photo 4.JPG
10/17/2013

Leg B (Level 2 to Level 3)

Photo 5.JPG
10/17/2013

Photo 6.JPG
10/17/2013

Photo 7.JPG
10/17/2013

Photo 8.JPG
10/17/2013

Leg B (Level 2 to Level 3)

Photo 9.JPG
10/17/2013

Photo 10.JPG
10/17/2013

Photo 11.JPG
10/17/2013

Photo 12.JPG
10/17/2013

Leg B (Level 2 to Level 3)

Photo 13.JPG
10/18/2013

Photo 14.JPG
10/18/2013

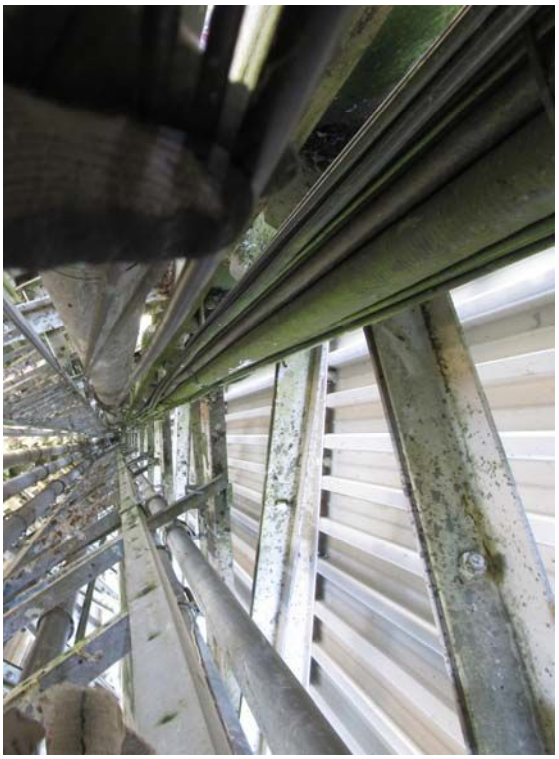
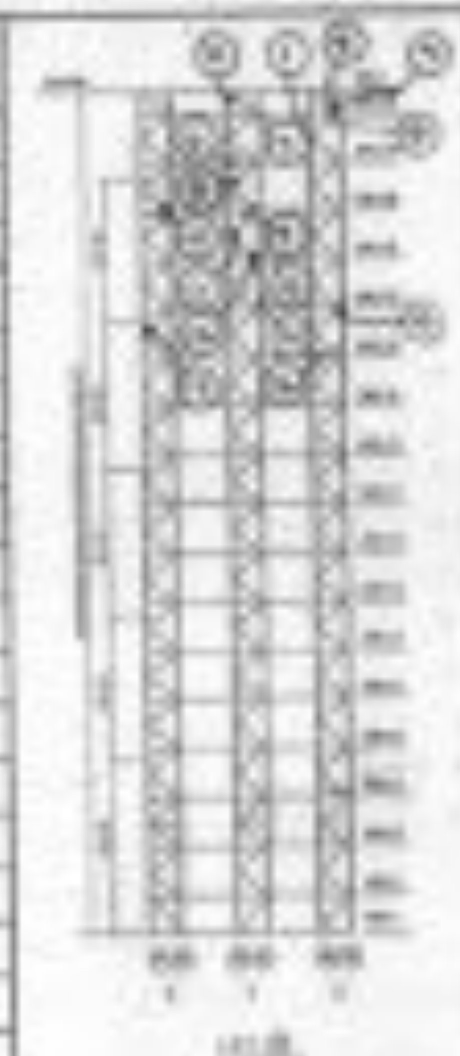


Photo 15.JPG
10/18/2013

Leg B (Level 2 to Level 3)

Inspection Data Sheet: Leg B (Level 1 to Level 2)

[illegible]	[illegible]			[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]		
1	[illegible]	[illegible]	[illegible]	1	[illegible]
2	[illegible]	[illegible]	[illegible]	2	[illegible]
3	[illegible]	[illegible]	[illegible]	3	[illegible]
4	[illegible]	[illegible]	[illegible]	4	[illegible]
5	[illegible]	[illegible]	[illegible]	5	[illegible]
6	[illegible]	[illegible]	[illegible]	6	[illegible]
7	[illegible]	[illegible]	[illegible]	7	[illegible]
8	[illegible]	[illegible]	[illegible]	8	[illegible]
9	[illegible]	[illegible]	[illegible]	9	[illegible]
10	[illegible]	[illegible]	[illegible]	10	[illegible]
11	[illegible]	[illegible]	[illegible]	11	[illegible]
12	[illegible]	[illegible]	[illegible]	12	[illegible]
13	[illegible]	[illegible]	[illegible]	13	[illegible]
14	[illegible]	[illegible]	[illegible]	14	[illegible]
15	[illegible]	[illegible]	[illegible]	15	[illegible]
16	[illegible]	[illegible]	[illegible]	16	[illegible]
17	[illegible]	[illegible]	[illegible]	17	[illegible]
[illegible]				[illegible]	[illegible]
San Francisco, CA				[illegible]	[illegible]



[illegible]

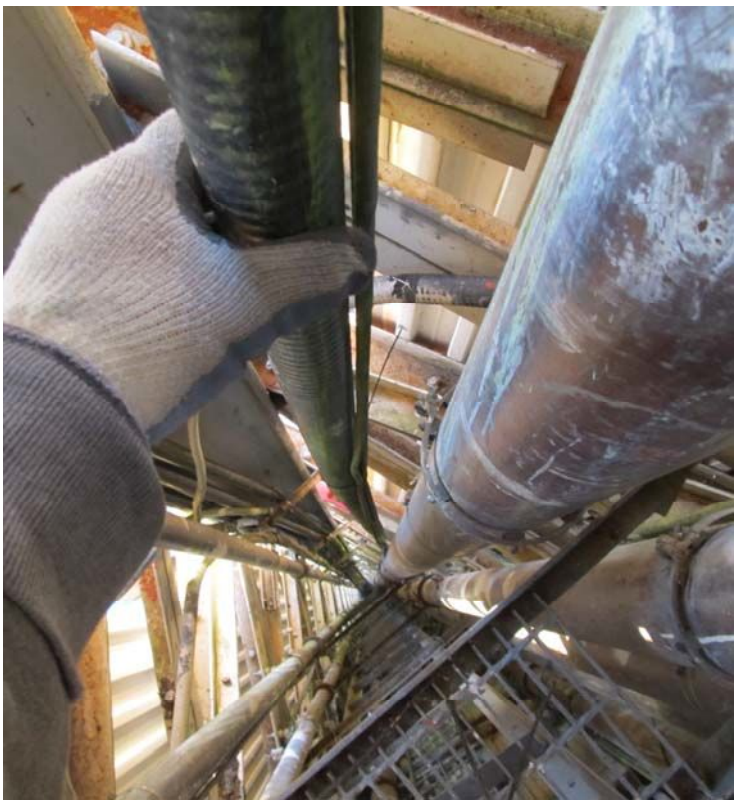


Photo 01.JPG
10/18/2013

Photo 02.JPG
10/18/2013

Photo 03.JPG
10/18/2013

Photo 04.JPG
10/18/2013

Leg B (Level 1 to Level 2)

Photo 05.JPG
10/18/2013

Photo 06.JPG
10/18/2013

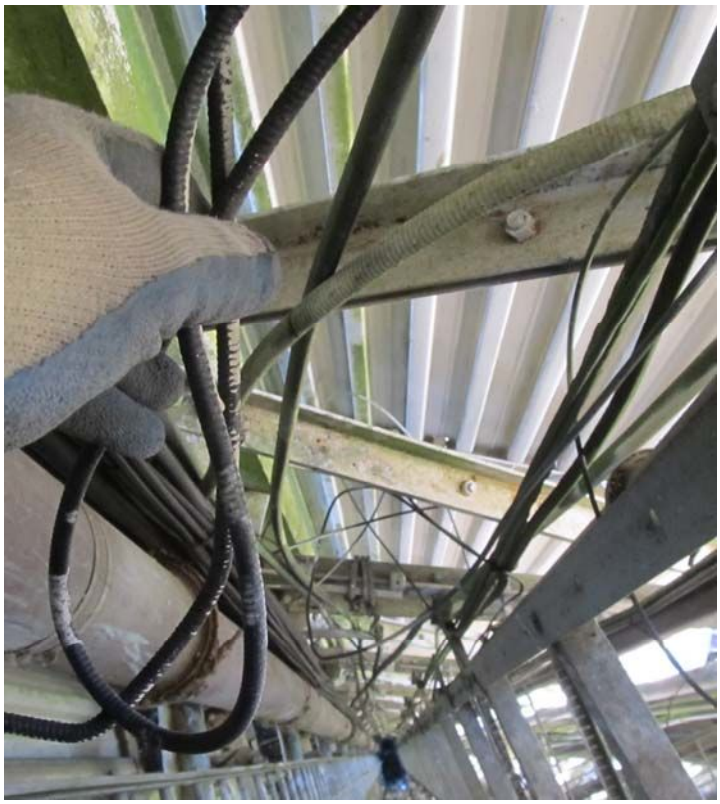


Photo 07.JPG
10/18/2013

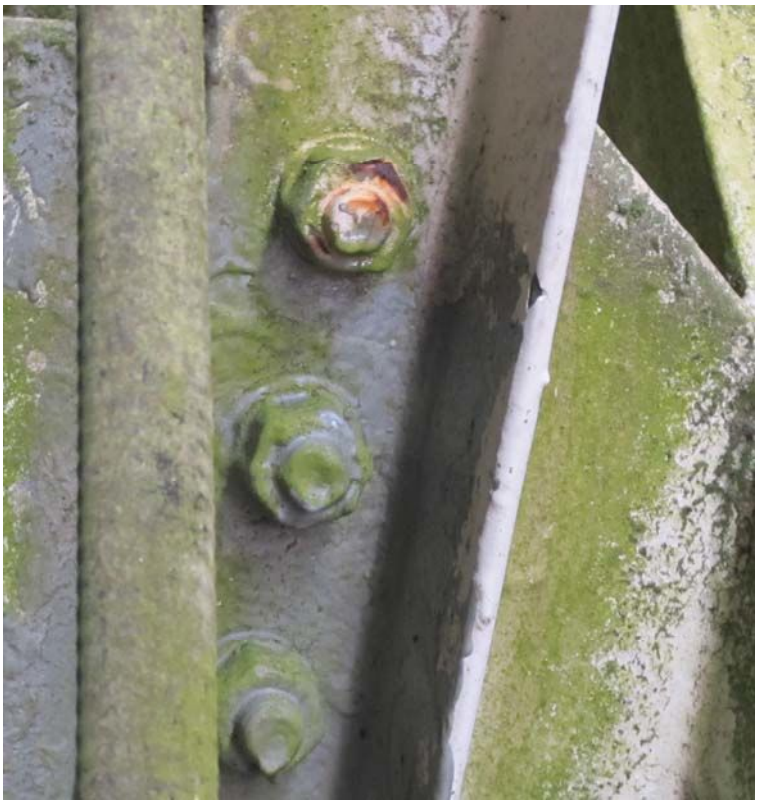


Photo 08.JPG
10/18/2013

Leg B (Level 1 to Level 2)

Photo 09.JPG
10/18/2013

Photo 10.JPG
10/18/2013

Photo 11.JPG
10/18/2013

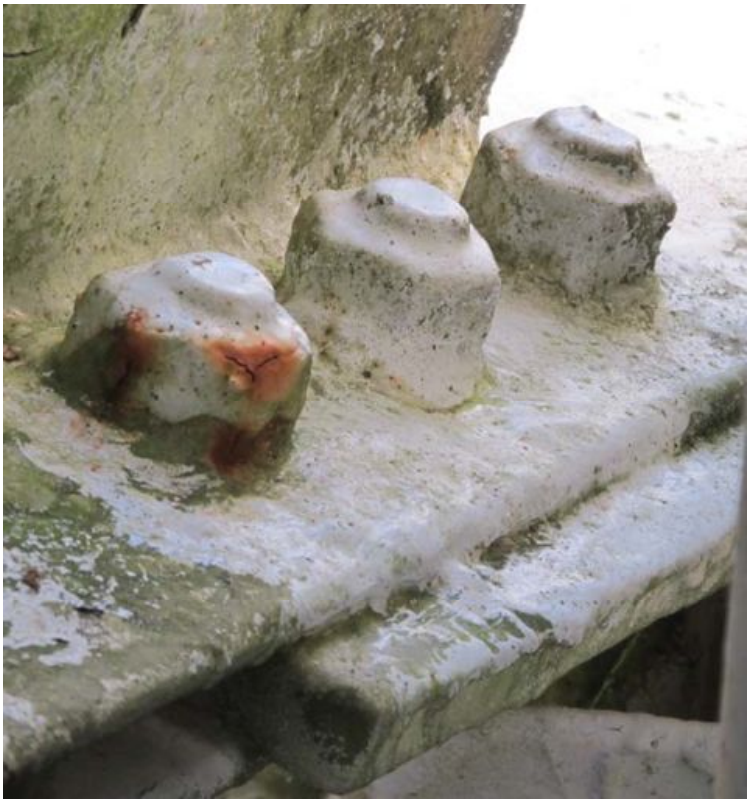


Photo 12.JPG
10/18/2013

Leg B (Level 1 to Level 2)

Photo 13.JPG
10/18/2013

Photo 14.JPG
10/18/2013

Photo 15.JPG
10/18/2013

Photo 16.JPG
10/18/2013

Photo 17.JPG
10/18/2013

Leg B (Level 1 to Level 2)

Inspection Data Sheet: Log B (Level 1 to Level 2)

Observation No.	Location identification			Action No.	Observation description
	Distance	Elevation	Side*		
1B	0+11.46	1.19	C	1B	SLIP (1)
2B	1+14.06	1.20	C	2B	SLIP (1), RIGHT SIDE SHOULDER
3B	2+13.66	1.19	C	3B	SLIP (1)
4J	3+15.66	1.21	D	4J	FULL DEPTH CRACK ACROSS THE CARRIAGEWAY
5B	4+14.66	1.17	C	5B	SLIP (1)
6B	5+14.66	1.15	C	6B	RIGHT SIDE SHOULDER
7B	6+ 14.66	1.14	C	7B	SLIP (1)
8B	7+14.66	1.15	C	8B	SLIP (1)
9B	8+14.66	1.19	C	9B	SLIP (1)
10B	9+14.66	1.19	C	10B	SLIP (1)
11B	10+14.66	1.14	C	11B	SLIP (1)
12B	11+14.66	1.13	C	12B	RIGHT SIDE SHOULDER
13B	12+14.66	1.11	C	13B	RIGHT SIDE SHOULDER
14B	13+14.66	1.18	C	14B	RIGHT SIDE SHOULDER
15B	14+14.66	1.16	C	15B	SLIP (1)
16B	15+14.66	1.15	C	16B	SLIP (1)
17B	16+14.66	1.16	D	17B	3" DEEP CRACK RUNS IN CUT & PARALLEL TO
18B	17+14.66	1.16	C	18B	SLIP (1)

Sabie Tower	Inspector	Page 1 of 2
San Antonio, CA	Date	Date 01/10/19

* Side designation: L=left, R=right, C=centerline, E=embankment, D=ditch

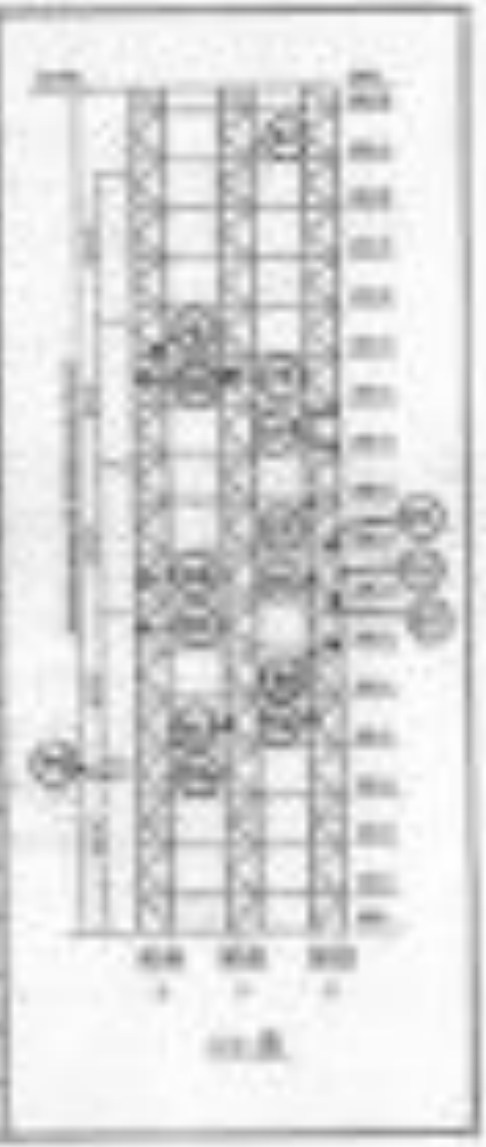


Photo 18.JPG
10/18/2013

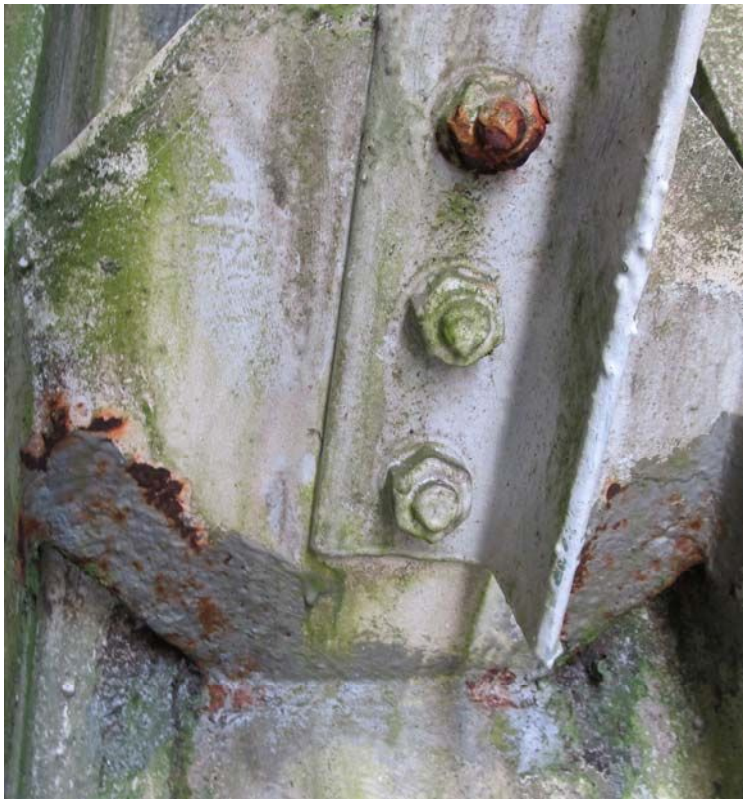


Photo 19.JPG
10/18/2013

Photo 20.JPG
10/18/2013

Photo 21.JPG
10/18/2013

Leg B (Level 1 to Level 2)

Photo 22.JPG
10/18/2013

Photo 23.JPG
10/18/2013

Photo 24.JPG
10/18/2013

Photo 25.JPG
10/18/2013

Leg B (Level 1 to Level 2)

Photo 26.JPG
10/18/2013

Photo 27.JPG
10/18/2013

Photo 28.JPG
10/18/2013

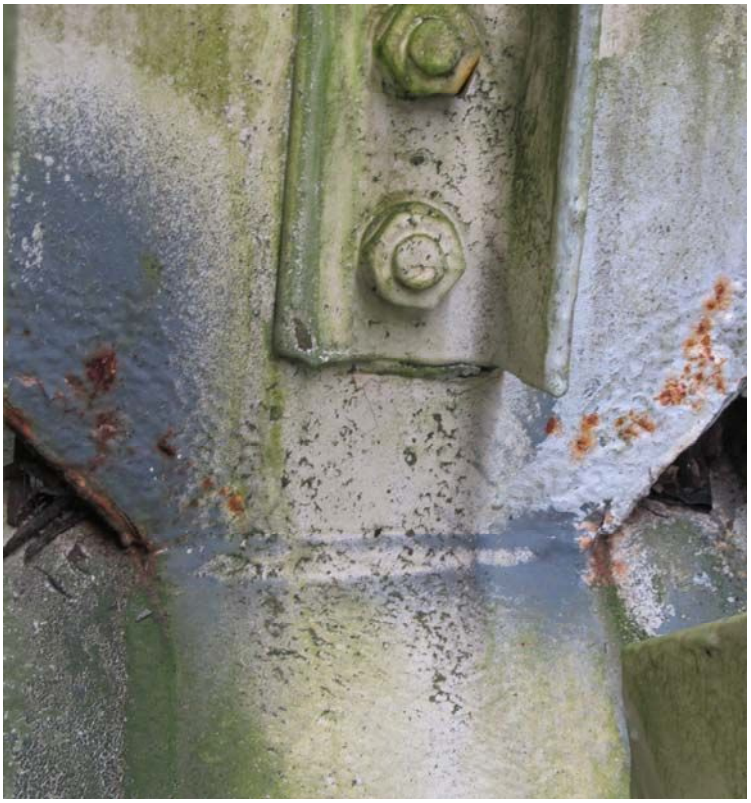


Photo 29.JPG
10/18/2013

Leg B (Level 1 to Level 2)

Photo 30.JPG
10/18/2013

Photo 31.JPG
10/18/2013

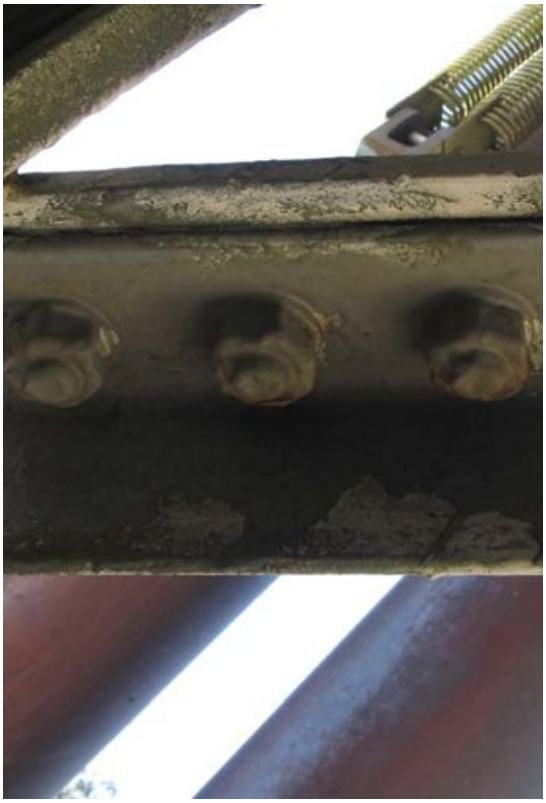


Photo 32.JPG
10/18/2013

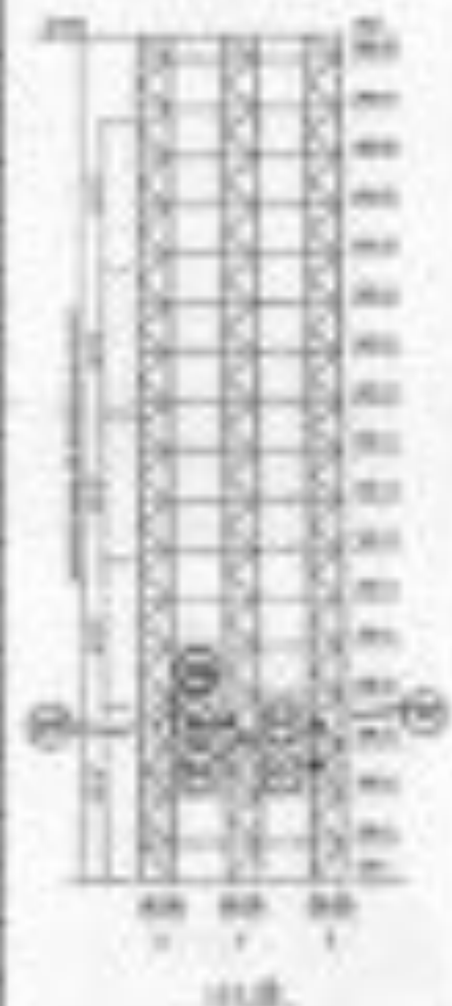
Photo 33.JPG
10/18/2013

Photo 34.JPG
10/18/2013

Leg B (Level 1 to Level 2)

Inspection Data Sheet: Leg B (Level 1 to Level 2)

[illegible]	[illegible]			[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]		
35	X-FACE	1.5	C	35	[illegible]
36	Y-FACE	1.5	C	36	[illegible]
37	B-FACE	1.5	C	37	[illegible]
38	Y-FACE	1.5	D	38	[illegible]
39	Y-FACE	1.5	C	39	[illegible]
40	B-FACE	1.5	C	40	[illegible]
41	B-FACE	1.5	C	41	[illegible]



[illegible] Team	[illegible]	Page [illegible] of [illegible]
San Francisco, CA	[illegible]	Date [illegible]

[illegible]

Photo 35.JPG
10/18/2013

Photo 36.JPG
10/18/2013

Photo 37.JPG
10/18/2013

Photo 38.JPG
10/18/2013

Leg B (Level 1 to Level 2)

Photo 39.JPG
10/18/2013

Photo 40.JPG
10/18/2013

Photo 41.JPG
10/18/2013

Leg B (Level 1 to Level 2)

Inspection Data Sheet: East Truss (Level 6)

Defect No.	Location/Identification			Photo No.	Inspection Comments
	Chord[1]	Grid Location	Item[2]		
1	OU	6.27	C	1	B/F (2)
2	IL	6.36	C	2	B/F (1)
3	OL	6.36	C	3	B/F (2)
4	OL	6.34	C	4	B/F (1)
5	OU	6.40	C	5	B/F (2)
6	OU	6.39	C	6	B/F (2)
7	OU	6.39	C	7	B/F (2)
8	OL	6.34	C	8	RIGHT UPPER DIAG. [illegible]
9	OL	6.40	C	9	B/F (2)
10	OU	6.32	C	10	B/F (4)
11	OU	6.39	C	11	B/F (1)
12	IU	6.34	C	12	B/F (2)
13	IU	6.24	C	13	B/F (1)
14	IU	6.24	C	14	[illegible] DIAGONAL [illegible]
15	IL	6.18	C	15	B/F (1)
Sutro Tower				Inspector:	Page 1 of 3
San Francisco, CA				[illegible]	Date 9/27/15

[1]Chord member designation: OU = outer upper, OL = outer lower, IU = inner upper and IL = inner lower
[2]Item designation: H = horizontal, V = vertical, D = diagonal, C = connection, O = others

Photo 01.JPG
9/27/2013

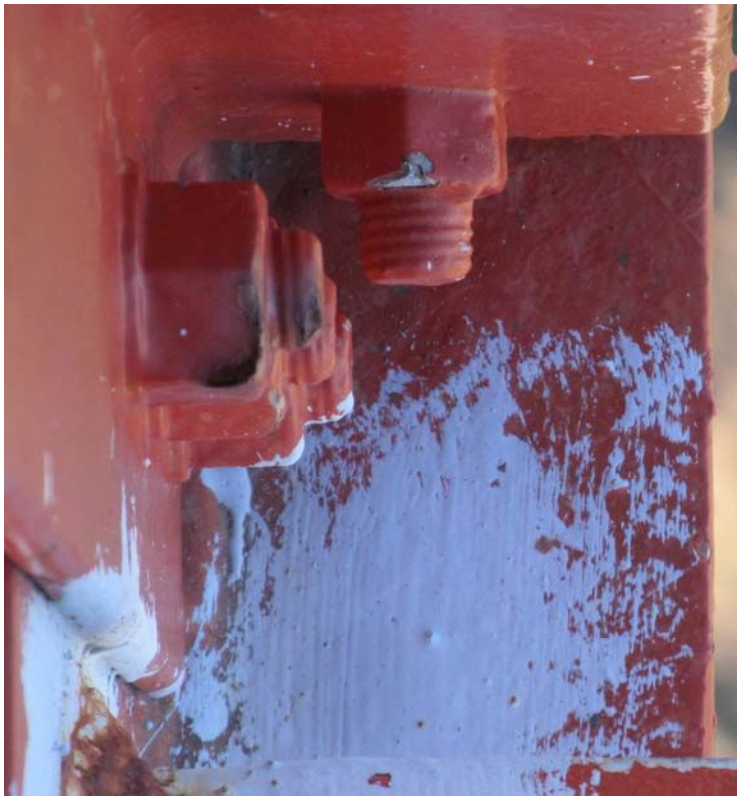


Photo 02.JPG
9/27/2013

Photo 03.JPG
9/27/2013

Photo 04.JPG
9/27/2013

East Truss (Level 6)

Photo 05.JPG
9/27/2013

Photo 06.JPG
9/27/2013

Photo 07.JPG
9/27/2013

Photo 08.JPG
9/27/2013

East Truss (Level 6)

Photo 09.JPG
9/27/2013

Photo 10.JPG
9/27/2013

Photo 11.JPG
9/27/2013

Photo 12.JPG
9/27/2013

East Truss (Level 6)

Photo 13.JPG
9/26/2013

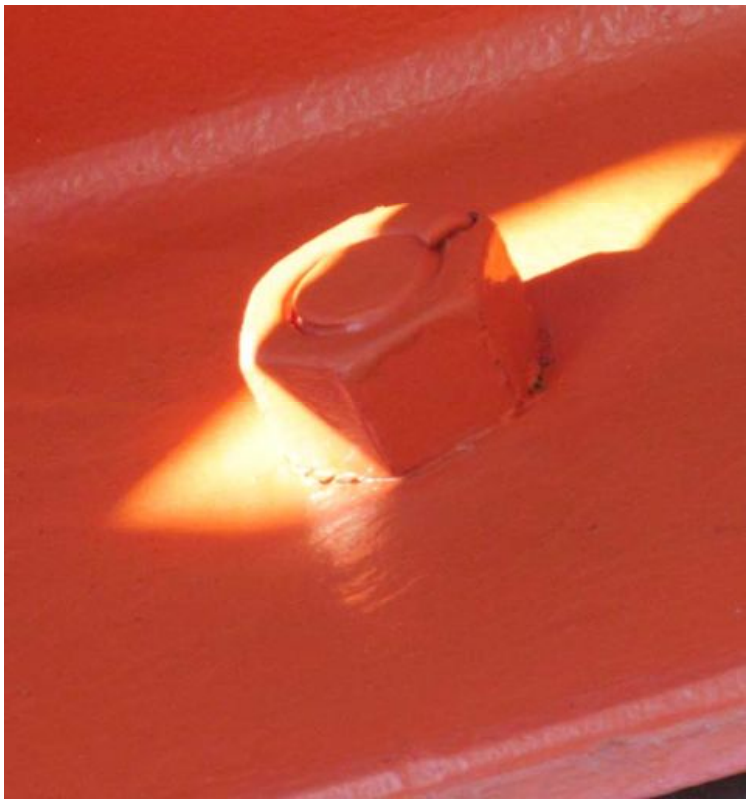


Photo 14.JPG
9/27/2013

Photo 15.JPG
9/27/2013

East Truss (Level 6)

Inspection Data Sheet: East Truss (Level II)

[illegible]	[illegible]			[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]		
[illegible]	OU	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	OU	[illegible]	C	[illegible]	[illegible]
[illegible]	OU	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	OU	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	OU	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	IL	[illegible]	C	[illegible]	[illegible]
[illegible]	OU	[illegible]	C	[illegible]	[illegible]
[illegible]	IU	[illegible]	C	[illegible]	[illegible]
[illegible]	IL	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	IU	[illegible]	C	[illegible]	[illegible]
[illegible]	OU	[illegible]	C	[illegible]	[illegible]
[illegible]	OU	[illegible]	C	[illegible]	[illegible]
[illegible]	IL	[illegible]	C	[illegible]	[illegible]
[illegible]	OL	[illegible]	C	[illegible]	[illegible]
[illegible]	OL	[illegible]	C	[illegible]	[illegible]

Sutro Tower	[illegible]	Page [illegible] of [illegible]
San Francisco, CA	[illegible]	[illegible]

[illegible]

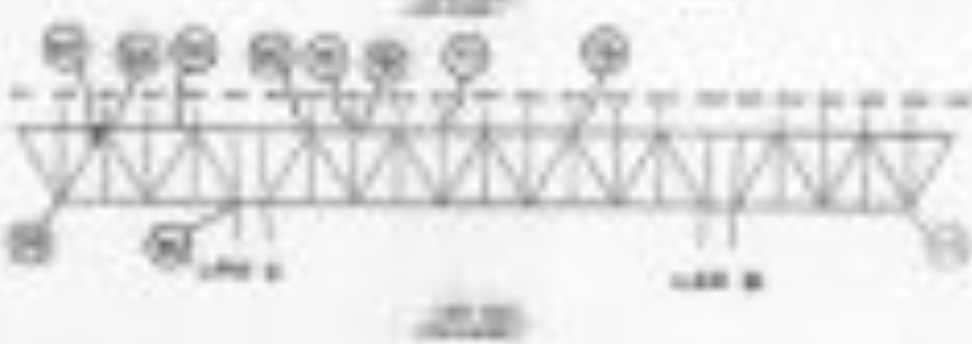


Photo 16.JPG
9/27/2013

Photo 17.JPG
9/27/2013

Photo 18.JPG
9/27/2013

Photo 19.JPG
9/27/2013

East Truss (Level 6)

Photo 20.JPG
9/27/2013

Photo 21.JPG
9/27/2013

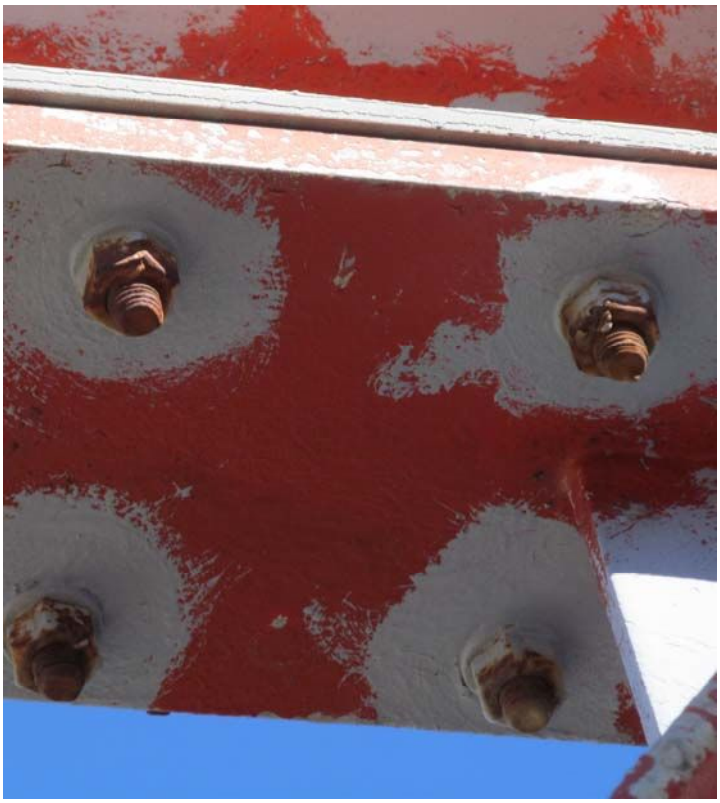


Photo 22.JPG
9/27/2013

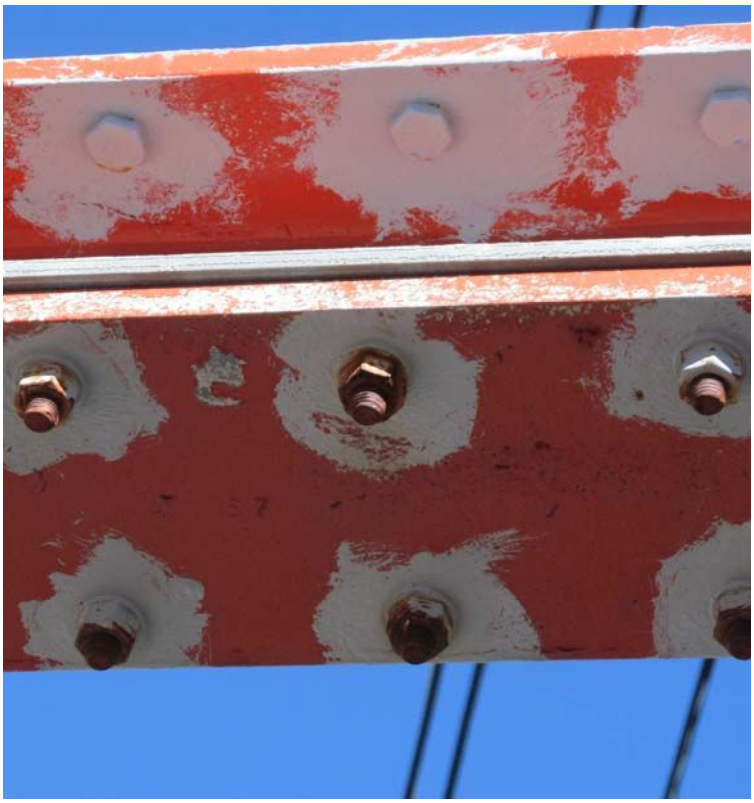


Photo 23.JPG
9/27/2013

East Truss (Level 6)

Photo 24.JPG
9/27/2013

Photo 25.JPG
9/27/2013

Photo 26.JPG
9/27/2013

Photo 27.JPG
9/27/2013

East Truss (Level 6)

Photo 28.JPG
9/26/2013

Photo 29.JPG
9/27/2013

Photo 30.JPG
9/27/2013

East Truss (Level 6)

Inspection Data Sheet: East Truss (Level 6)

[illegible]	[illegible]			[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]		
91	[illegible]	[illegible]	[illegible]	91	[illegible]
92	[illegible]	[illegible]	[illegible]	92	[illegible]
93	[illegible]	[illegible]	[illegible]	93	[illegible]
94	[illegible]	[illegible]	[illegible]	94	[illegible]
95	[illegible]	[illegible]	[illegible]	95	[illegible]
96	[illegible]	[illegible]	[illegible]	96	[illegible]
97	[illegible]	[illegible]	[illegible]	97	[illegible]

[illegible]	[illegible]	Page 3 of 3
San Francisco, CA	[illegible]	Date [illegible]

[illegible]

[illegible]

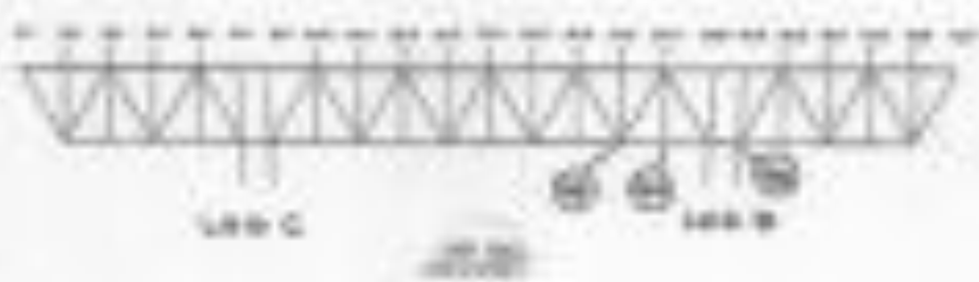


Photo 31.JPG
9/27/2013

Photo 32.JPG
9/27/2013

Photo 33.JPG
9/27/2013

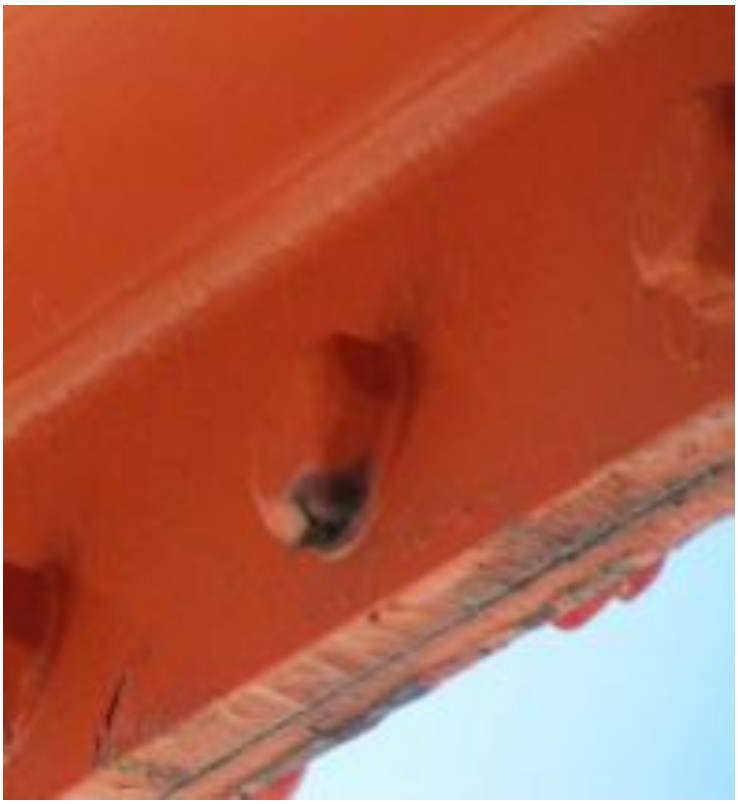


Photo 34.JPG
9/27/2013

East Truss (Level 6)

Photo 35.JPG
9/27/2013

Photo 36.JPG
9/27/2013

Photo 37.JPG
9/27/2013

East Truss (Level 6)

Inspection Data Sheet: East Truss (Level 6)

Item No.	Location Identification			Photo No.	Inspection Comments
	Chord	Axis Location	[illegible]		
1	U	[illegible]	[illegible]	1	[illegible]
2	L	[illegible]	[illegible]	2	[illegible]
3	L	[illegible]	[illegible]	3	[illegible]
4	U	[illegible]	[illegible]	4	[illegible]
5	U	[illegible]	[illegible]	5	[illegible]
6	M	[illegible]	[illegible]	6	[illegible]
7	U	[illegible]	[illegible]	7	[illegible]
8	L	[illegible]	[illegible]	8	[illegible]
9	L	[illegible]	[illegible]	9	[illegible]

Sutro Tower	Inspector:	Page 1 of 1
San Francisco, CA	By:	Date: [illegible]

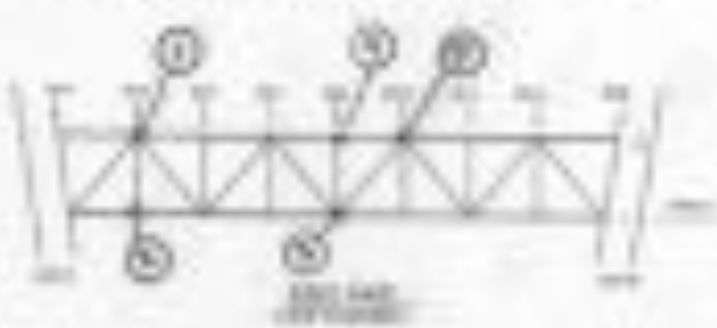


Photo 01.JPG
10/17/2013

Photo 02.JPG
10/17/2013

Photo 03.JPG
10/17/2013

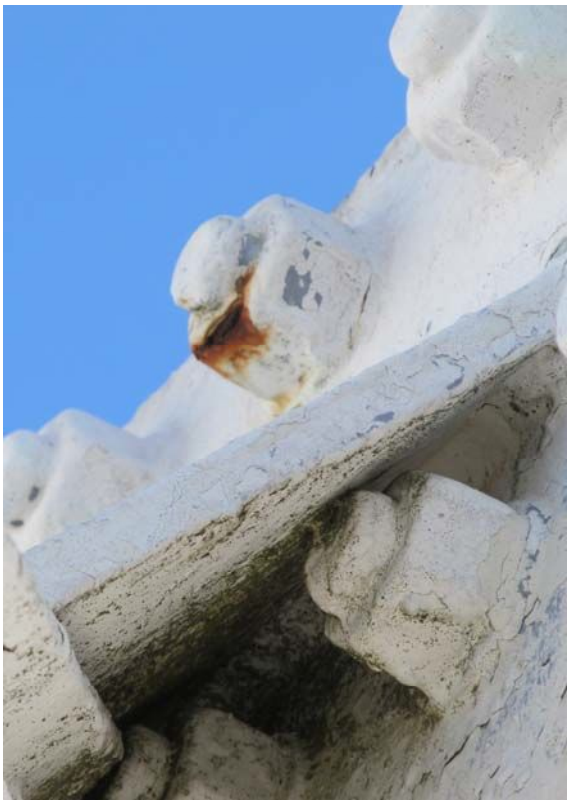


Photo 04.JPG
10/17/2013

East Truss (Level 5)

Photo 05.JPG
10/17/2013

Photo 06.JPG
10/17/2013

Photo 07.JPG
10/17/2013

Photo 08.JPG
10/17/2013

East Truss (Level 5)

Photo 09.JPG
10/17/2013

Inspection Data Sheet: East Truss (Level 4)

[illegible]	[illegible]			[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]		
1	U	4,1	G	1	RF (4), [illegible]
2	U	4,1	C	2	RF (5), [illegible]
3	U	4,2	[illegible]	3	RF (1)
4	U	4,3	C	4	RF (5)
5	U	4,4	C	5	RF (1)
6	U	4,6	C	6	RF (4)
7	U	4,4	C	7	RF (5)
8	M	4,6	G	8	RF (1)
9	M	4,3	C	9	RF (5)

Sutro Tower	[illegible]	Page 1 of 1
San Francisco, CA	[illegible]	Date [illegible]

[illegible]

[illegible]

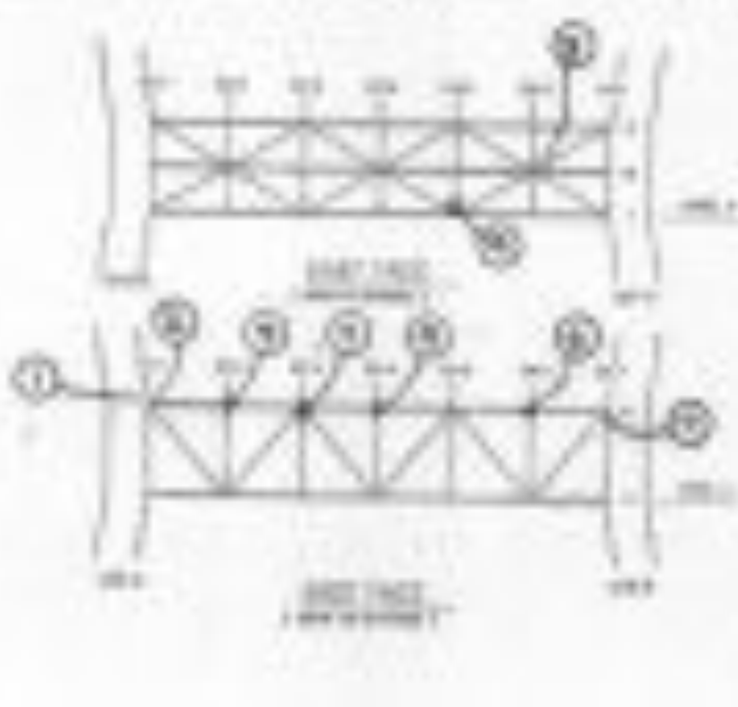


Photo 01.JPG
10/17/2013

Photo 02.JPG
10/17/2013

Photo 03.JPG
10/17/2013

Photo 04.JPG
10/17/2013

East Truss (Level 4)

Photo 05.JPG
10/17/2013

Photo 06.JPG
10/17/2013

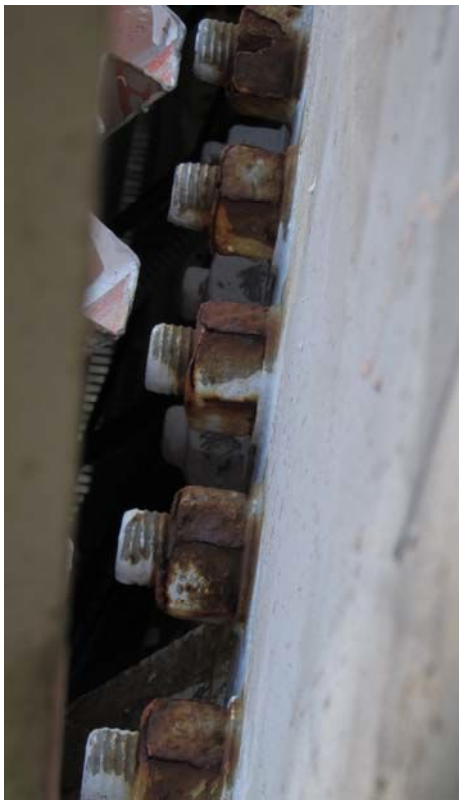


Photo 07.JPG
10/17/2013

Photo 08.JPG
10/17/2013

East Truss (Level 4)

Photo 09.JPG
10/17/2013

East Truss (Level 4)

Inspection Data Sheet: East Truss (Level 3)

Photo No.	Location Identification			Photo No.	Inspection Comments
	Chord[1]	Bay Location	Item[2]		
1	U	3.8/9	C	1	RJF (1)
2	U	3.5	C	2	RJF (V)
3	L	3.7	C	3	RJF (4)
4	U	3.7	C	4	RJF (4)
5	L	3.6	C	5	RJF (4)
6	U	3.5	C	6	RJF (1)
7	U	3.4	C	7	RJF (4)
8	L	3.3	C	8	RJF (1)
9	U	3.3	C	9	RJF (3)
10	L	3.1	C	10	RJF (2)
11	U	3.1	C	11	RJF (2)
12	M	3.8	C	12	RJF (2)
13	L	3.8	C	13	RJF (2)
14	M	3.4	C	14	RJF (1)
15	M	3.3	C	15	RJF (2)
[illegible] Tower				Inspector:	Page 1 of 1
San Francisco, CA				File:	Date: [illegible]

[1] Chord member designation: U = upper, M = middle, and L = lower
[2] Item designation: H = horizontal, V = vertical, D = diagonal, C = connection, and S = [illegible]

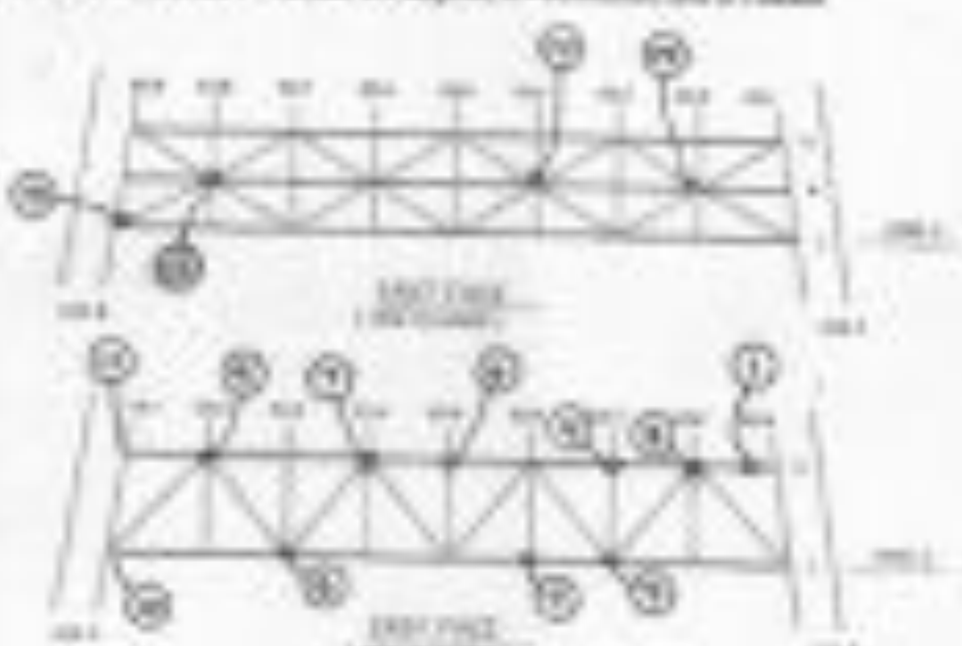


Photo 01.JPG
10/17/2013

Photo 02.JPG
10/17/2013

Photo 03.JPG
10/17/2013

Photo 04.JPG
10/17/2013

East Truss (Level 3)

Photo 05.JPG
10/17/2013

Photo 06.JPG
10/17/2013

Photo 07.JPG
10/17/2013

Photo 08.JPG
10/17/2013

East Truss (Level 3)

Photo 09.JPG
10/17/2013

Photo 10.JPG
10/17/2013

Photo 11.JPG
10/17/2013

Photo 12.JPG
10/17/2013

East Truss (Level 3)

Photo 13.JPG
10/17/2013

Photo 14.JPG
10/17/2013

Photo 15.JPG
10/17/2013

East Truss (Level 3)

Inspection Data Sheet: East Truss (Level 2)

[illegible] No.	Location/Identification: [illegible]¹	[illegible]	[illegible]²	Photo No.	Inspection Comments
					NO [illegible] NOTED FOR THE TOP
					AND MIDDLE CHORDS BECAUSE THEY
					WERE RECENTLY CLEANED AND PAINTED
					THE BOTTOM ANGLE HAS NOT BEEN
					ATTACHED BUT IS SCHEDULED
					TO BE ATTACHED [illegible] THE
					NEXT YEAR.

Sutro Tower	Inspector:	Page 1 of 1
San Francisco, CA	By:	Date: 11 / [illegible] / [illegible]

¹[illegible]
²[illegible]

STRAND 4

Inspection Data Sheet: Miscellaneous Tower Items

Sketch No.	Location / Identification[1]	Photo No.	Inspection Comments
1	STRANDS 1-3	1	A FEW BULGING STRANDS
2	STRANDS 3-4	2	MINOR RUST ON STEEL
3	STRANDS 3-4	3	A FEW BULGING STRANDS
4	STRANDS 4-5	4	POSSIBLE MOVEMENT IN SOCKET
5	STRANDS 4-5	5	MINOR RUST ON GUY STEEL
6	STRANDS 4-5	6	POSSIBLE SURFACE RUST ON GUY WIRE
7	STRANDS 4-6	7	POSSIBLE RUST ON GUY WIRE
8	STRANDS 5-6	8	RUST ON [illegible] SUPPORT [illegible]
9	STRANDS 5-6	9	RUST ON [illegible]
10	STRANDS 5-6	10	POSSIBLE RUST ON WIRE
11	STRANDS 5-6	11	RUST ON GUY HARDWARE, [illegible]
12	[illegible]	12	RUSTED WIRES
13	STACK & WIRES	13	[illegible]
14	STACK & WIRES	14	[illegible]
15	STACK & WIRES	15	RUST ON [illegible] WIRES
16	STACK & WIRES	16	[illegible]

Sutro Tower	Inspector:	Page 1 of 1
San Francisco, CA	File:	Date: [illegible]

[1] Miscellaneous items for the entire tower in addition to those contained in the column leg and truss forms.

Photo 01.JPG
11/12/2013

Photo 02.JPG
11/12/2013

Photo 03.JPG
11/12/2013

Photo 04.JPG
11/12/2013

Strands, Misc.

Photo 05.JPG
11/12/2013

Photo 06.JPG
11/12/2013

Photo 07.JPG
11/12/2013

Photo 08.JPG
11/12/2013

Strands, Misc.

Photo 09.JPG
11/12/2013

Photo 10.JPG
11/12/2013

Photo 11.JPG
11/12/2013

Photo 12.JPG
11/12/2013

Strands, Misc.

Photo 13.JPG
9/26/2013

Photo 14.JPG
9/27/2013

Photo 15.JPG
9/27/2013

Photo 16.JPG
9/27/2013

Strands, Misc.

BASE 4

Inspection Data Sheet: Miscellaneous Tower Items

[illegible]	[illegible]	[illegible]	[illegible]
1	LEG A, BASE B	1	[illegible] ON BASE PLATE
2	LEG A, BASE B	2	RUST ON LEG AND WELD
3	LEG B, BASE B	3	RUST ON LEG
4	LEG C, BASE B	4	RUST ON BOTH GUSSETS
5	LEG A, BASE B	5	RUST ON BASE PLATE
6	LEG C, BASE B	6	RUST ON WELD TO BASE PLATE
7	LEG C, BASE B	7	RUST ON LEG

Sutro Tower	[illegible]	Page 1 of 1
San Francisco, CA	[illegible]	Date [illegible]

[1] [illegible]

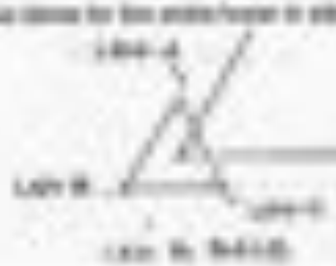


Photo 1.JPG
11/12/2013

Photo 2.JPG
11/12/13

Photo 3.JPG
11/12/13

Photo 4.JPG
11/12/13

Bases, Misc.

Photo 5.JPG
11/12/13

Photo 6.JPG
11/12/13

Photo 7.JPG
11/12/13

Bases, Misc.