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A DIVISION OF CONSOLIDATED ENGINEERING

April 27, 2012

Project No. D50541

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

SUBJ: Sutro Tower
1 La Avanzada Street
San Francisco, CA

**Routine Inspection of Leg C and South Face – December, 2011
Inspection of Stack C – January, 2012**

Dear Mr. Dausman:

We have completed our inspection of Leg C, the South Trusses, the Strands, and the Base of all legs and Stack C above the 6th level. The routine inspection was performed on December 22 and 28, 2011. The Stack was inspected on January 14, 2012.

Purpose

The purpose of the inspection was to check the structural portions of the tower proper and the attached equipment, etc. for distress due to corrosion, structural overload and/or other signs of distress or potential deterioration.

Scope and Procedures

The survey was performed in general accordance with the recommended approach for a Routine Inspection as described in the Inspection Procedures which were recently revised to include the appurtenant items and Stack C. The undersigned and a staff engineer (Richard Ng) and an inspector (Chad Hill) performed the inspection of the Tower. The undersigned and Chad Hill performed the hands-on inspection of Stack C. All three have

performed inspections on the tower in the past. The strands were inspected by naked eye and binocular.

The inspection was limited to visual observations and recording by entry on the data sheets for each portion of the tower being inspected. A specific photograph was taken for the individual conditions. The data sheets and the photographs are coordinated.

One exception to the one observation-one photograph record was the fasteners of Stack C. There were several groups of fasteners that were showing the early signs of corrosion in numerous locations. The locations were numerous enough that this observation was recorded as a global comment.

Inspection Limitations

We inspected the tower from the interior of the leg and horizontal trusses. No attempt was made to inspect from the exterior of the trusses and legs other than what could be seen by naked eye and binoculars (8x). These methods allow us to see most of each surface and connection, however there are still areas that are not visible.

Results

The individual results are shown on the data sheets, location sketches and photographs. The general results were as follows:

1. No structural members or appurtenant items were noted with distorted or distressed conditions indicating structural overload.
2. Most of the distress noted was corroded fasteners. Either the nut (usually) or the head of the bolt, or both, were corroded. None of the fasteners were corroded to the point of producing flaking buildup. These fasteners should be cleaned and repainted. If however during the cleaning significant loss of metal is found, that is, if the flats of the nut or heads are rounded at junction of the flats due to corrosion, the fastener should be replaced.
3. Stack C had a few areas of corrosion on the knife plates and a few welds. This corrosion should be removed and the surfaces repainted. One appurtenant item attachment channel (aluminum) had fasteners with some corrosion (galvanic) that should be cleaned and repainted, or the fasteners changed to stainless steel. Stack C is also showing early signs of corrosion on several groups of fasteners in the upper 2/3rds of the Stack. These fasteners should also be cleaned and repainted.

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4. The skin showed no signs of structural distress.
5. The strands did not have any visible distress.
6. The bases of all three legs showed no significant observable distress. Corrosion was visible on several welds at the base plates.
7. This concludes our report of the routine inspection of Leg A, the South Face and Stack C of Sutro Tower. If you have any questions please contact the undersigned.

Sincerely,
CEL Consulting



K. C. Dewell, Senior Engineer
Civil Engineer No. 29110

Cc: Ron Hamburger



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534 23rd Avenue • Oakland, CA 94606 • (510) 436-7626 • FAX (510)434-7719

Inspection Summary – Year 2011

Description of Inspection:

- Routine inspection of Leg C
- Routine inspection of Stack C and guys
- Routine inspection of horizontal levels on South face
- Routine inspection of all appurtenances and attachments on Leg C, Stack C, and South face
- Routine inspection of strands on South face
- Routine inspection of strand anchors on Leg C
- Routine inspection of base – all legs

Special or In-depth Inspections:

Summary of Results:

- 1) No structural distress noted for structure or appurtenant items.
- 2) Corrosion noted for some fasteners and surfaces.

Summary of Recommendations:

Clean and repaint corroded areas.

Checklist:

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

Signature: 

Date: April 27, 2012

