

Gus Sirakis*FREEDOM TOWER*

From: Gus Sirakis
Sent: Thursday, August 30, 2007 10:34 AM
To: 'Bhol, Saroj'
Cc: Fatma Amer
Subject: RE: Freedom Tower: Use of AISC 13th(2005) Edition

Saroj,

Based on the responses below I have no objections to your request to use AISC 360-05, ANSI/AISC 341s1-05, ANSI/AISC 358-05 and AWS D1.8 (2005- Structural Welding Code- Seismic Supplement) in conjunction with the seismic forces as determined by IBC 2003.

Regards,

Gus Sirakis
Project Engineer – NYC DOB
T: (212) 566-3810
constadinos@buildings.nyc.gov

From: Bhol, Saroj [mailto:sbhol@panynj.gov]
Sent: Tuesday, August 28, 2007 9:32 AM
To: Gus Sirakis
Subject: RE: Freedom Tower: Use of AISC 13th(2005) Edition

Gus,
Please see below for response to your questions.
Thanks
Saroj

-----Original Message-----

From: Rahimian, Ahmad [mailto:ahmad.rahimian@wsps.com]
Sent: Tuesday, August 28, 2007 9:22 AM
To: Bhol, Saroj
Subject: RE: Freedom Tower: Use of AISC 13th(2005) Edition

Saroj,

1). The primary lateral load resisting system is the core shear wall. However, we have ductile moment frame around the perimeter which we designated as part of the wind and seismic system. The request is to use AISC 360-05 (that is part of AISC Manual of Steel Construction 13th edition also) for members that are participating in the lateral-force resisting system. The structural design for the seismic load will remain according to IBC 2003.

2). We suggest using ANSI/AISC 341s1-05, ANSI/AISC 358-05 & AWS D1.8 (2005- Structural Welding Code- Seismic Supplement).

Thanks,

Ahmad Rahimian, Ph.D., PE, SE
President
ahmad.rahimian@wsps.com
Main: 212-687-9888

-----Original Message-----

From: Gus Sirakis [mailto:ConstadinoS@bb.nyc.gov]

8/30/2007

Sent: Monday, August 27, 2007 12:15 PM
To: Bhol, Saroj
Cc: Fatma Amer; Manher Shah
Subject: RE: Freedom Tower: Use of AISC 13th(2005) Edition

Saroj,

I have some questions regarding your request below:

1. Are there structural steel elements in the lateral-force resisting system of the building? And Is the request to use AISC 360-05 for members that are participating in the lateral-force-resisting system?
2. What version of the seismic provisions for steel buildings will be used or is proposed for use?

Thank you,

Gus Sirakis
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From: Bhol, Saroj [mailto:sbhol@panynj.gov]
Sent: Monday, August 20, 2007 4:16 PM
To: Gus Sirakis
Subject: Freedom Tower: Use of AISC 13th(2005) Edition

Gus,
 I would like to get your thoughts on the new request below. Please see attached for previously agreed upon exception for the steel design.
 Thanks
 Saroj

-----Original Message-----

From: Rahimian, Ahmad [mailto:ahmad.rahimian@wspcs.com]
Sent: Monday, August 20, 2007 9:54 AM
To: Bhol, Saroj
Subject: FW: WTC1: AISC 13th Edition

Dear Saroj, our current variance issued by DOB is in reference to usage of AISC-LRFD 3rd Edition, 2001 and IBC 2003. However, the AISC in 2005 issued an updated design manual combining the ASD & LRDF versions into one manual called 13th Edition. This manual while still consistent with LRFD load and resistant factors of 3rd edition has updated information with respect to the following:

The approach to one of the most popular connections, single shear tab connection and extended single-plate shear connections has been revised and in fact is simplified.
 A direct calculation method has been added for determining the buckling strength of double-coped members.
 Design procedures for prying action now make use of the tensile strength rather than yield strength to better align the design provisions with the tested performance of bolted parts subjected to prying action.
 With the exception of double coped beams, procedures for the design of connection elements subject to bending have been modified to the use of plastic section modulus in the calculation of bending strength, rather than the elastic section modulus.

We would like to see if we can an update to our variance allowing us using the AISC 13th edition, 2006 for WTC1 project.

Regards,

8/30/2007

Ahmad Rahimian, Ph.D., PE, SE
President
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8/30/2007