

Structural Engineers Association of Utah

Seismic Committee Meeting

December 4, 2000

Minutes

A scheduled meeting of the Seismic committee of the Structural Engineers Association of Utah was held at the office of Willmore/Cole in Bountiful on December 4, 2000 beginning at 10:00 AM.

Members Present: Ken Willmore (Chairman), Barry Welliver (Secretary), Don Barfuss, Kelly Calder, Carl Eriksson, Leon Tanner

Members Absent/ Steve Cohen, Dave Pierson

Excused:

Review Agenda Items from November 7th Ken W. noted that the SEAU Board of Directors would like to review the work done on the IBC 2000 at its December 12th meeting.

Don B. presented comparison graphs showing the 1997 UBC and 2000 IBC % of base shear verses story height.

Review of IBC Sections 2106, 2305.1.5, 2305.2.4.1, 2305.3.10, 2308.11 and 2308.12

Section 2106.1 Seismic design requirements for masonry. Seismic design category reference section should be 1613.1 not 1613.3.

Section 2106.1.2.3 Response modification coefficients. The R coefficient should reference Table 1617.6 not Table 1616.

Section 2106.4.2.1 Connections to masonry shear walls. MSP to increase the minimum horizontal connection force from 200#/ft. To 280#/ft. in recognition of the strength design force level basis. (This change would also be required in section 1604.8.2 for consistency)

Further, there was extensive discussion about the 4 foot maximum spacing between connectors provision in this section. It was determined that the committee should receive input from the masonry industry. Ken W. Will contact Dean Brown of Interstate Masonry.

Discussions about section 2106.4.2.4 Discontinuous members, highlighted the design practice differences necessitated by the 2000 IBC. In particular, the impact on the masonry industry as a whole was considered and further input was deemed necessary.

Sections 2305.1.4, 2305.1.5, 2305.2, 2305.3.10, 2308.11 and 2308.12 were briefly reviewed and discussed.

Other It was suggested that a summary statement accompany the collection of proposed 2000 IBC code changes to assist the SEAU Board in its review.

Assignments Ken W. to contact Interstate Masonry regarding response to 2000 IBC provisions.
Barry W. to draft the summary statement.

Adjournment: This meeting was adjourned at 1:01:21PM.

Next meeting to be January 9, 2001 at Willmore/Cole office, Bountiful, UT, beginning at 10:00am

Submitted by: Barry H. Welliver, Secretary

Summary Review of 2000 IBC

December 8, 2000

The Seismic committee of SEAU has meet monthly since July to review the structural seismic provisions of the 2000 International Building Code. The attached packet, "Request for Code Amendment", represents our proposed code changes in DOPL format for submission.

Our charge was to review the new code and recommend changes and alterations as deemed necessary to tailor its use in Utah. This has been a daunting task. The building codes have undergone significant changes within the last two iterations and the supporting documentation for revisions has been slim. We have endeavored to use commentaries to the 1999 "Recommended Lateral Force Requirements" and the 1997 "NEHRP Recommended Provisions for Seismic Regulations for New Buildings" (FEMA 302, 303) in addition to the various materials chapters background information in evaluating unfamiliar changes. While this information has proved helpful it did not answer all of our questions and therefor these submitted changes are based on our best determinations given the time frame for study.

It was the committees impression that the SEAU Board of Directors might find the following comments regarding our overall review useful.

- ✍ Seismic ground motion maps in the IBC 2000 replace the seismic zone considerations in the UBC 1997. This results in greater "fine-tuning" of seismic design requirements and more accurately reflects force levels for a specific location. The mapping efforts for the 1997 NEHRP provisions (basis of IBC 2000) resulted in a more uniform recognition of seismicity for all areas however the committee questioned the recurrence intervals used (for Utah design requirements) and the need to