(with the safety factors I feel comfortable with). For low buildings, I'd try to make sure there is enough bracing so that rocking does not occur at a very low force level.

**$A_g$ force of the brace?**

**We do a lot of one-story**

**the force go if you ignore it in the design of these members?**

**We are under the 1999 *Standard Building Code*, which does not differentiate between special and ordinary concentric braced frames (except through referring to ASCE 7). This code refers to the 1997 AISC *Seismic Provisions*, which would technically allow us to ignore the seismic provisions for one- and two-story structures. However, we have been trying to use the 2002 provisions to be more up-to-date. The 1997 provisions allowed for the brace connection for OCBF to be designed for load combinations 4-1 and 4-2, but we see that this was taken out in the 2002 provisions for OCBF, along with the one- and two-story exception. The SCBF still allows the connection to be designed for the maximum force that can be transferred by the system. If you design the foundations for the base shear and let that limit the system, then aren't you basically cancelling out the requirement for the connection to be designed for the $R_yF_yA_g$ force, which effectively puts you back at square one?**

*We asked Rafael Sabelli, a presenter of AISC's seminar on the seismic provisions and new seismic manual, to respond:*

I believe that the stated assumptions are very good. Essentially, my view is that the engineer needs to understand how the structure will yield and design accordingly. In the case of low structures (one- and two-story), the "yielding" may be rocking—in other words, uplift of the spread footings. It is theoretically unnecessary to design elements of the structure for more force than the rocking capacity, but I would suggest that the engineer bear a few things in mind:

1. Rocking leads to large displacements, and the "stiff" CBF quickly develops very high drifts. In my own judgment, I would not to permit rocking at the design base shear for SCBF ($R$ = 6), but I think it is OK at the base shear for OCBF ($R$ – 3.25 in ASCE 7-05).
2. A true upper-bound rocking capacity is difficult to quantify. I

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