

CASE Survey of Potential Problems When the Structural Design Responsibility is Divided

It is increasingly more common for the structural design on a project to be the responsibility of more than one structural engineer or firm. This survey seeks to gather opinions on this practice. It is hoped that a dialogue can be developed to explore the many, legal, practice and administrative issues that are associated with this growing practice. Look for future articles in Structure Magazine from CASE that capture the thoughts and comments of those involved in this process.

The division of structural responsibility on any project may take many forms. In more contemporary cases the structural frame, whether it is pre-engineered metal, glue laminated timber, prestressed precast concrete, post tensioned concrete or prefabricated wood trusses, is designed by one engineer while another engineer designs the remainder of the building. The Structural Engineer of Record (SER) is responsible for the entire project, and will designate the parameters for which the frame manufacturer or supplier must design. The SER reviews submittals by the frame designer to see that the design parameters were met. In this situation all aspects of the structural design are fully coordinated and compatible.

In an increasing number of situations, particularly with design/build projects or where the architect wants to minimize the structural design costs, no one takes responsibility for the total structure; an engineer on the staff of the frame supplier or hired by them designs the structural frame and the design/build contractor or architect retains another engineer to design the foundation based on the loads provided by the frame designer. This was typical for pre-engineered metal buildings where the metal building manufacturer designed the frame but more and more often structural steel fabricators and open web joist suppliers are also providing the structural frame design.

This situation frequently leaves no one in control of the total structure. This problem was noted recently as a concern by some CASE members. Thus we decided to conduct a survey of the various participants in the project delivery process to see if they have encountered this situation and what problems, if any, they have noticed with this system. **All individuals sharing comments will be held in strict confidence.**

Please list your response to each question and fax to Council of American Structural Engineers (CASE) at (202) 898-0068 (fax) or email comments to ebajer@acec.org. Use additional paper as necessary. Please respond by October 30th.

(Survey on back)

CASE SER SURVEY RESPONSE fax to **(202) 898-0068**

1. I am a:

A. Consulting Structural Engineer

D. Building Official

B. Engineer or representative of a
Steel Fabricator

E. Staff engineer of an A/E firm

C. Engineer or representative of
other type fabricator or supplier

F. Other. Describe. _____

2. Have you seen this split responsibility on projects in your locale? If so, please note circumstances.

3. If you are involved in this type of project, do you use any disclaimer saying you are not the SER?

4. Is there a SER taking responsibility for the overall structure on these projects? _____

5. Are all structural provisions of the building code being adequately satisfied? Are any components or load conditions being overlooked? _____

6. Do you think building officials are aware of any possible design deficiencies when a split design responsibility system is used? _____

7. Is the owner really getting the most efficient structure or are the frame designers optimizing the frame at the cost of the structure as a whole? _____

8. Have you seen problems with serviceability of the structures such as too much lateral deflection of the frame for the wall materials used? _____

9. Please note any other comments you have on the advantages or problems with this split responsibility design practice, although not required, providing your name and phone number would be helpful if we would need you to elaborate on any response.

