

## Case Study #9: Roof Analysis

Client: Timberidge Custom Home, Heber City, Utah

**Issue:** Some bearing issues became evident when this roof was modeled.

- A. The beam separating the great room from the foyer is specified to be 21" tall. The beam is intended to be flush so as not to drop ceiling. The mono trusses on top of the beam were designed to sit ON a wall or beam, NOT notched or hung from a flush beam. Easy to fix before they are built!
- B. There is a girder truss over the kitchen/dining room. The girder truss is to sit on a wall beside a run of kitchen cabinets. There is a beam underneath this point load to carry it down to the foundation below. The problem, as depicted in the image, is that the girder truss is not on the wall, it is on the "other side of the line" of the 2x4 wall! What do you do, move the kitchen wall? No, you would alter the cabinet design AND introduce a new point load that is not over top of the bearing below it.

