

## Frequently Asked Questions

### Attachment to Non-Bearing Walls by Ryan J. Dexter

There has been a lot of discussion over the years as to whether trusses should be attached directly to nonload-bearing interior partition walls or if an intentional gap should be left between the members.

The basic arguments are as follows:

- Leaving a gap equal to or greater than the deflection of the truss at design load, would theoretically never cause the truss to bear on nonbearing walls.
- Having trusses set right on the partition wall would reduce the possibility of cracking between the partition wall and the truss. Further, this would also improve the overall stability and integrity of the building because the trusses would help stabilize the walls and vice versa.

Both points of view seem to have some merit. Recently, we received the following question: What is WTCA's stance on the attachment of trusses to nonbearing walls?

#### ANSWER:

Trusses are not required to be attached to nonbearing walls and typically should not be directly attached. Attachment can change the load that is placed onto the floor or effectively add a new bearing location for the truss, thus changing the flow of loads through the truss.

If there is attachment, it is for the benefit of holding the nonbearing partition plumb. Toe-nailing the bottom chord of the truss to a nonbearing wall should typically allow the truss to float enough to not cause undue amounts of load transfer. However, the more ideal solution is to use a clip that allows the truss to float up and down, or a block on either side of the truss bottom chord that allows the same movement to take place.

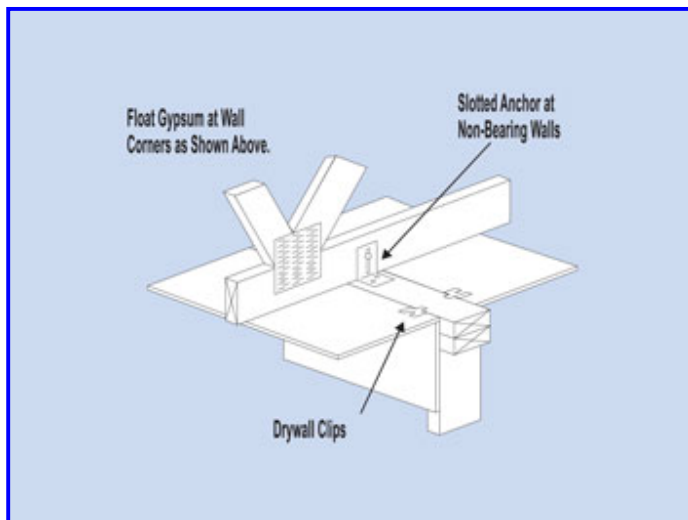


FIGURE 1: USE OF DRYWALL CLIPS AND SLOTTED ANCHOR ON NONBEARING WALL

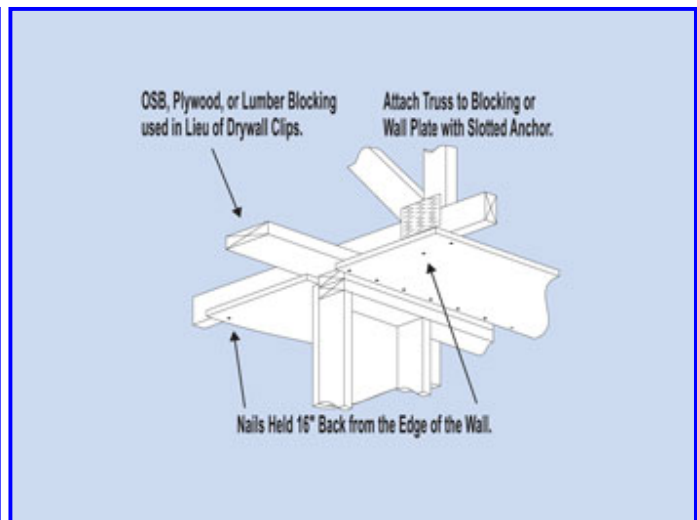


FIGURE 2: BACK BLOCKING A GYPSUM CORNER AT NONBEARING WALL

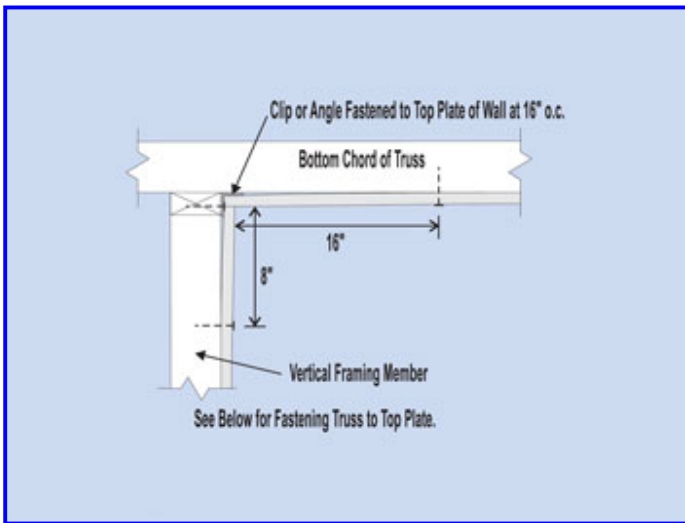


FIGURE 3: FLOATING GYPSUM CORNER I TRUSS PERPENDICULAR TO WALL

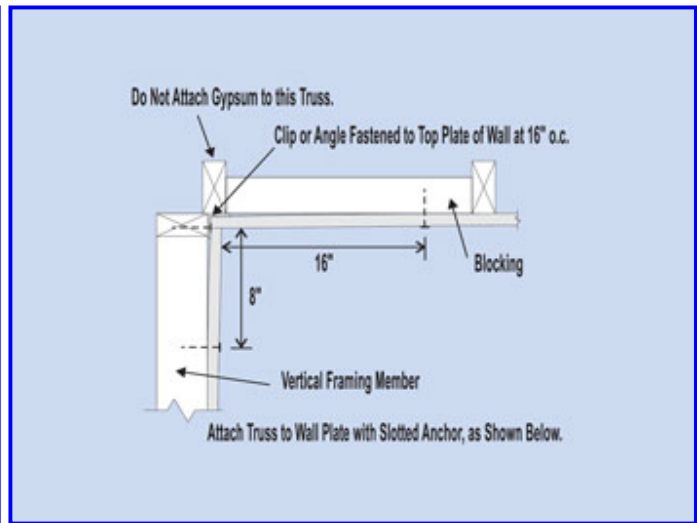


FIGURE 4: FLOATING GYPSUM CORNER II TRUSS PARALLEL TO WALL

Additionally, partition movement should be taken into account by following WTCA's partition separation details shown in Figures 3 and 4. A floating gypsum corner, which allows vertical movement between the truss bottom chord and the top of the partition wall, should be used. This will allow movement so that the potential for gypsum cracking is minimized.

In general, truss attachment to nonbearing walls should be done with a clip or blocking as stated above. However, a single toe-nail will probably not hurt the performance of the truss or the wall. Regardless of whether or not the wall is bearing or nonbearing, never force the truss down to the wall. As is the case with many questions, there are no one-size-fits-all answers. The ultimate answer is site, truss and wall specific and depends on the truss design, placement of partition walls, and floor conditions within the building.

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