



Ladder Framing Allows Better Insulation

The framing for most homes is wood. The problem is that wood is not a very good insulator. So we use what are called "ladder panels" when we attach interior walls to exterior walls. This allows us to better insulate the home and use less wood during the framing process.



Reducing energy bills is important to everyone, especially during the winter. However, during cold months the house's protective heat shield is compromised because the spaces around framing joists are not insulated. These spaces can allow cold air to enter the home, which in turn will make the heating system work harder.

A procedure called "ladder framing" creates space for more insulation while reducing the amount of wood we need to frame the home. By using less wood but keeping the structural integrity of the frame, we are using what engineers call "OVE," or "optimal value engineering."

The best application of the ladder panel technique is when we connect an interior wall to an exterior wall. By using short lumber pieces and attaching them between the studs of the exterior wall, we provide a nailing surface to support the interior wall.

Here's how you do it:

- ▶ Start by cutting small blocks of 2" x 4" lumber. The blocks will fit between 16" or 24" on center studs with the wall studs in the bay.
- ▶ Nail the blocks in lengthwise. For an 8' wall we want to use three blocks; for a 10' foot wall, four blocks.
- ▶ To attach the interior wall, nail the first stud of the interior wall to the blocking pieces on the exterior wall.
- ▶ After attaching the interior wall frame, fill the space between the ladder framing with spray foam or batt insulation.

Your framing crews may be more familiar with the common method of connecting interior to exterior walls: by simply butting the interior stud wall to the exterior wall and nailing in. However, when we use the common method of connecting interior to exterior walls, we can't place insulation behind the studs. This is why ladder framing is a better framing technique.

Ladder framing allows more space for insulation. This added space stops cold air and helps create a protective heat shield for your home. And by using fewer wood studs in the stud bay, it keeps framing costs down.