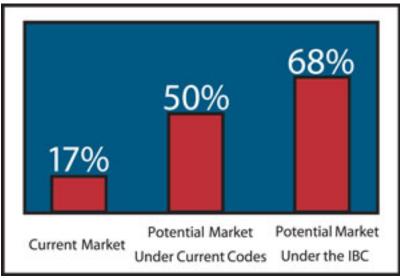
## STRUCTURAL BUILDING COMPONENTS MAGAZINE

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# Frequently Asked Questions

## Wood Framing by Rachel Smith

Some estimates put wood framing at 90 percent of all residential construction. That should be no big surprise to most truss manufacturers who see the bulk of their business made up of wood roof, floor and wall components for single and multifamily dwellings. The shock comes when one considers non-residential construction—only 17 percent uses wood framing. By association, this means that smaller markets are available for wood component framing in non-residential construction.



THERE IS HUGE GROWTH POTENTIAL FOR WOOD FRAMING IN NON-RESIDENTIAL MARKETS

The question then is, why is wood framing used so little in these projects? According

to estimates from the American Wood Council the three major model codes—the Uniform Building Code, the National Building Code and the Standard Building Code—will allow wood framing in about 50 percent of these projects. Under the less restrictive provisions of the new International Building Code, this increases to closer to 70 percent. There is huge potential for wood framing but it is not being realized. One factor may be code confusion on the part of the Building Designer.

#### **QUESTION:**

I am conducting an investigation on the costs associated with building a 15,000 sq. ft. addition to an existing school building. I need to determine if wood trusses, steel bar joists or light gauge steel trusses would be the most economical material for the building system. The truss spans range from 42 ft. to 56 ft. Please respond if you have any suggestions on resources or helpful advice.

#### **ANSWER:**

All other factors being equal, wood is usually the least expensive of the three building systems that you list. To get an accurate cost estimate for this project, we recommend that you contact a truss manufacturer in your local area. You can search for WTCA members in your state at <a href="https://www.woodtruss.com">www.woodtruss.com</a>.

One point that you may need to explore further is if your building code permits wood as a construction material for that specific type of construction. Under some codes, there are restrictions for building heights and areas based on construction type (in this case wood framing), occupancy and use (educational), and level of fire protection (are fire rated assemblies or sprinklers specified?). To determine if wood is an allowable construction material for a 15,000 sq. ft. school, you can use a nifty little program called Code Conforming Wood Design from the American Wood Council. It is available as a free download at <a href="https://www.awc.org">www.awc.org</a>. You can enter the building parameters like height, area, number of stories, occupancy and use. Then, based on your model building code, the program will list all viable wood framing options.

To view other questions visit the WTCA website

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