MiTek

The Benefits of Building with Floor Trusses over Conventional Methods

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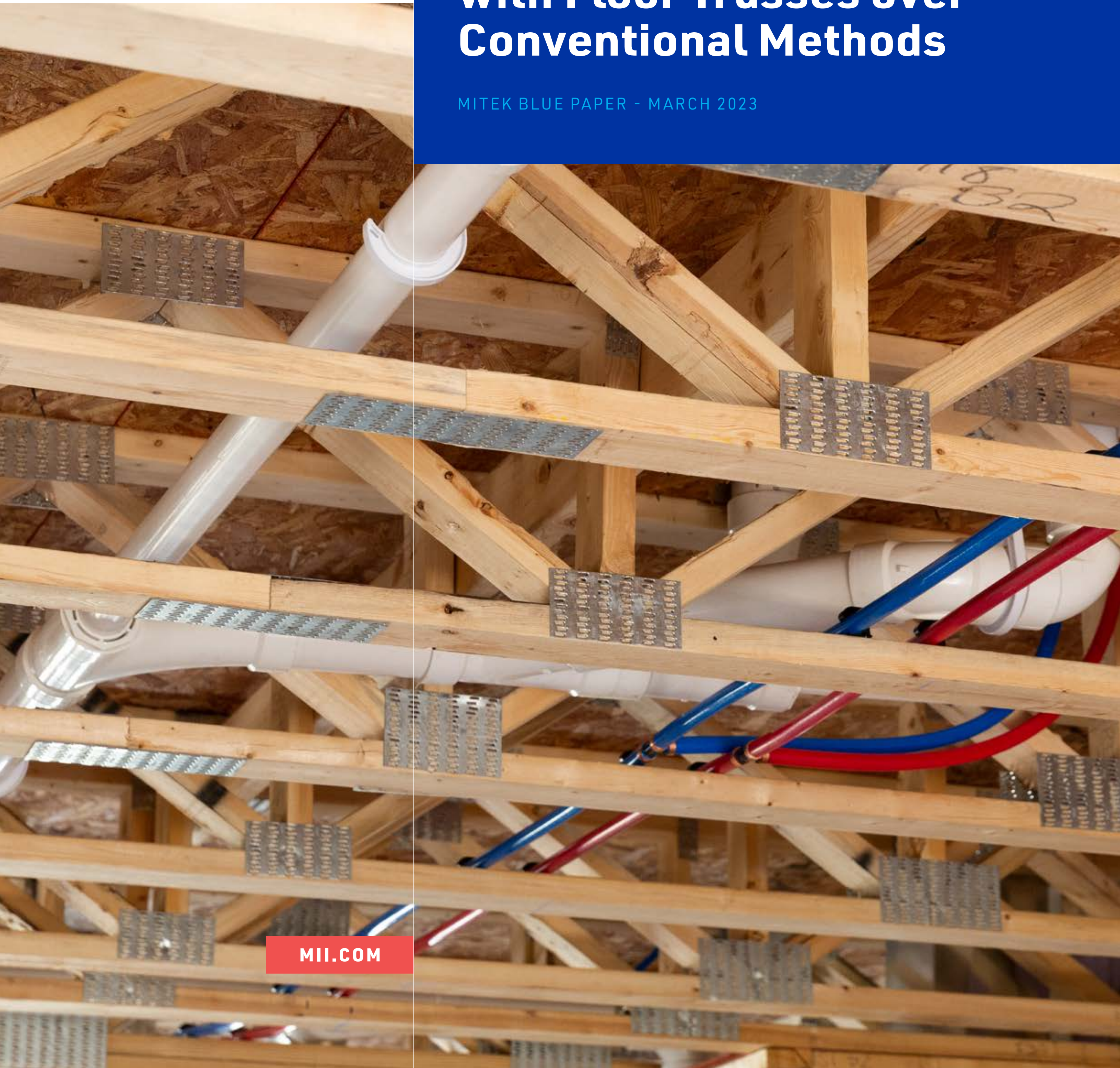

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The Benefits of Building with Floor Trusses over Conventional Methods

While the use of conventional flooring products, such as dimensional lumber or engineered wood products (EWP), has been prevalent in the housing industry for many years, several disadvantages associated with these methods can be addressed by building with off-site components, specifically floor trusses.

EASE OF SPECIFICATION HAS LIMITATIONS

Builders often opt for conventional flooring products because of their ease of specification. However, the benefits of changing to floor trusses far outweigh the ease of sticking to traditional methods. Floor trusses are a manufactured product designed specifically for each house and its respective spans. This method provides customization and optimization that cannot be achieved with conventional flooring products.

Conventional Floor Products

Open Web Floor Truss System

Phil Harms, Area Vice President at MiTek, said, "Builders often try to swap conventional flooring for floor trusses and end up frustrated when the result isn't optimal."

"If you're going to design, optimize the design for floor trusses, and you'll find success," Harms said.

"It's worth taking the extra time to collaborate with your component manufacturer to do the job right."

"THE COMPONENT MANUFACTURER CAN HELP BUILDERS SEE THE VALUE BEHIND FLOOR TRUSSES."
STEPHEN KELLER

PHIL HARMS
Area Vice President at MiTek

STEPHEN KELLER
Component Specification Manager at MiTek

OPTIMIZATION AND TRUE VALUE

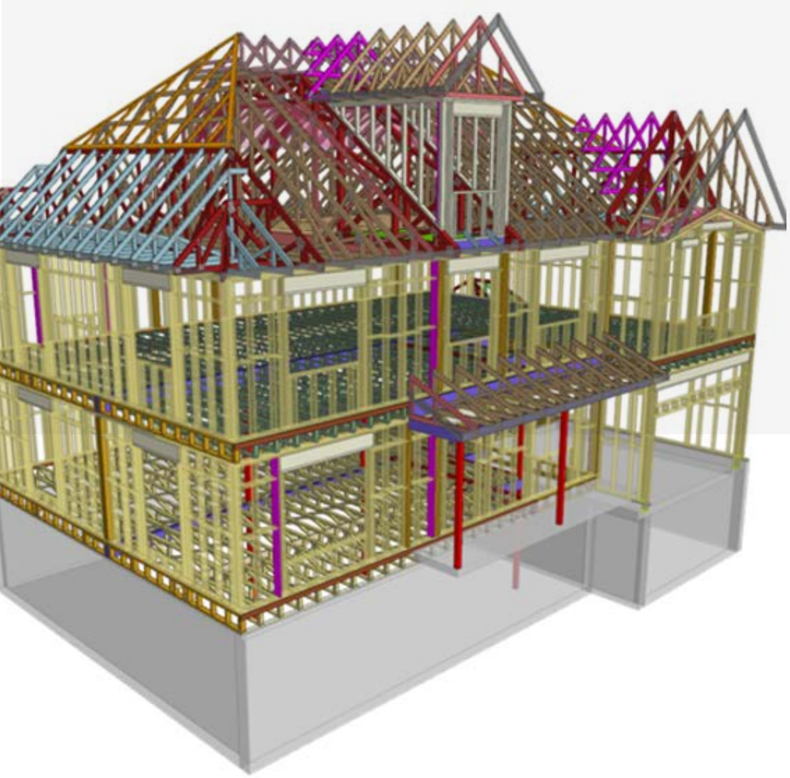
Standardizing using conventional flooring products may make it easy to specify a product, but full optimization is limited when particular product type is specified. On the other hand, floor trusses can morph into the house's needs, providing true value to the builder.

"Coming from the engineering side, Specifiers often default to a product that can be referenced from a PDF with known spans and capacities," said Stephen Keller, Component Specification Manager at MiTek. "But that standardization ties you to a certain type of product, a certain type of design, and limits your ability to optimize your floor system."

MiTek partners with the builder's component manufacturer to perform a home plan design optimization that identifies opportunities to reduce on-site labor and enable reductions in cost, labor, and overall build cycle time. This service creates a fuller picture of the Building Information Modeling (BIM) model with improved off-site methods like floor trusses versus traditional methods.

MEP FLEXIBILITY AND COST SAVINGS

Harms said using floor trusses opens opportunities for MEPs (mechanical, electrical, and plumbing) to work together more efficiently. For example, reducing the size of the HVAC system and the number of turns in flex ducts, which can negatively impact airflow, results in higher performance at a cost savings. Floor trusses also offer more flexibility in locating MEPs on-site and allow for easy adjustments when needed.



Component Build vs. Conventional Build

ITEM	DIFFERENCE
# Joists (Trusses)	-13%
TLF Joist (Truss)	-14%
Total bdft (Approx.)	-22%
# Hangers	-23%
TLF Flush LVL	Eliminated 50'
TLF Rim	Eliminated All Rim

Resource: MiTek Innovation Research Team

SUMMARY

Choosing floor truss systems over engineered wood products or dimensional lumber saves time on-site, reduces material needs and costs, and enhances design opportunities. Additionally, open web floor trusses make MEP installation faster, easier, and more flexible. By partnering with a component manufacturer and MiTek and implementing floor trusses into the home design, builders can achieve better project results and provide added value to their clients.