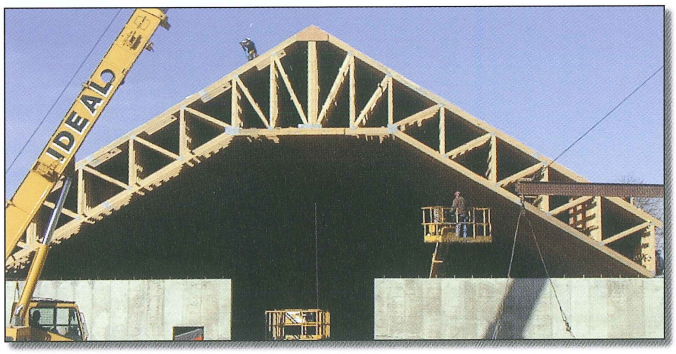
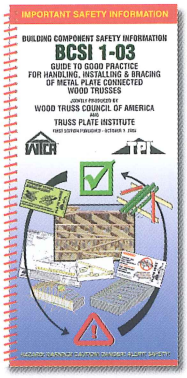
Truss Technology IN BUILDING

Long Span Truss Installation

Long span trusses, 60 feet or greater in length, pose significant risk to installers. The dimensions and weight of a long span truss can create instability, buckling and collapse of the truss if it is not handled, installed and braced properly. Long span trusses can be installed safely and efficiently but they require more detailed safety and handling measures than shorter span trusses.



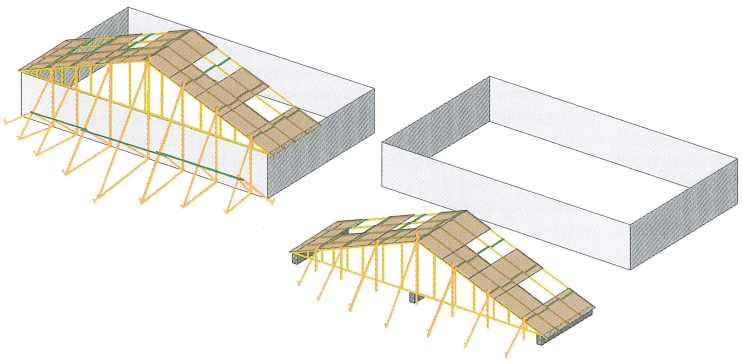
BEFORE STARTING

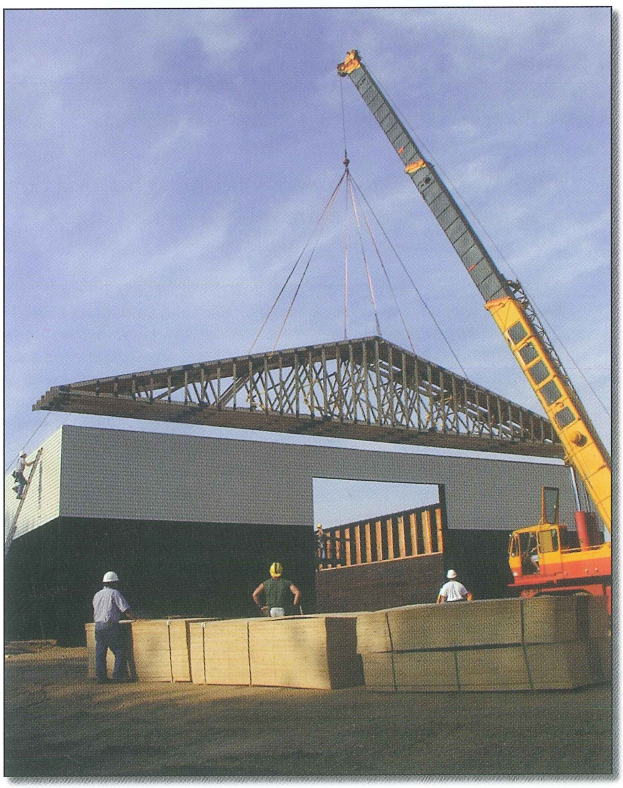


- Read and understand BCSI 1-03: The Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses published by WTCA.
- Develop a safe, effective truss installation method and inform all crew members of their roles.
- Use installers with experience in installing long span trusses.
- Inspect the trusses. Document all truss damage. Prior to installation, repair all trusses according to the repair details supplied by either the truss manufacturer or a professional engineer.
- Ensure that the walls and supporting structure are stable and adequately braced.
- Have all necessary lifting equipment and building materials on hand. Make sure the crane operator understands the special hoisting requirements of long span trusses.
- Avoid potential truss collapses and accidents by hiring a professional engineer to provide the temporary bracing plan and to supervise the erection process.

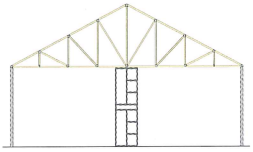
TIPS FOR SAFE AND EFFICIENT INSTALLATIONS

Build the First Five Into a Stable Base Unit:
Assemble the first five trusses with all sheathing and bracing. Some installers lift the first five trusses one at a time and brace and sheath as they go, other installers build the base unit on the ground and lift it into place. Either way, this makes the installation process much easier, accurate and safe.



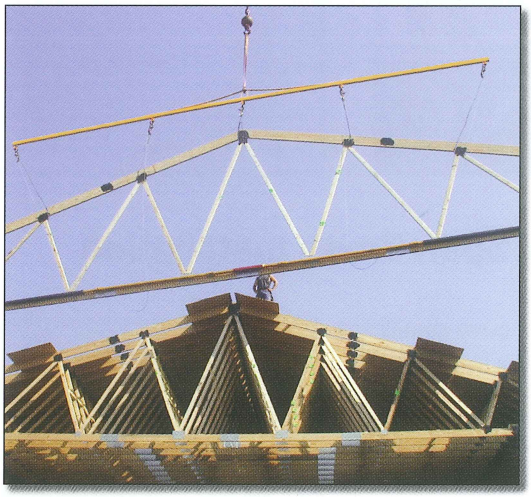


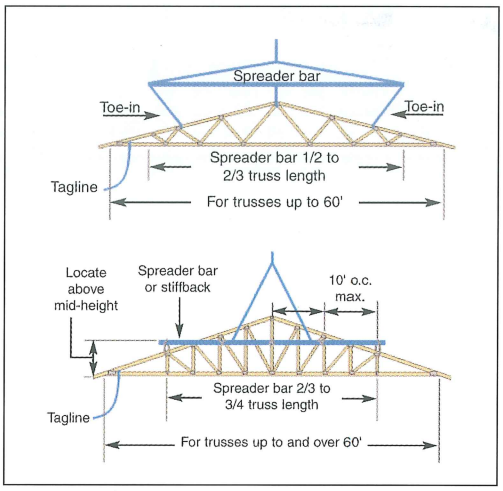
Add a Temporary Center Support:
This is highly recommended, since it will greatly reduce buckling forces in the trusses. Temporary bracing is still required.



TIPS FOR SAFE AND EFFICIENT INSTALLATIONS (CONTINUED)

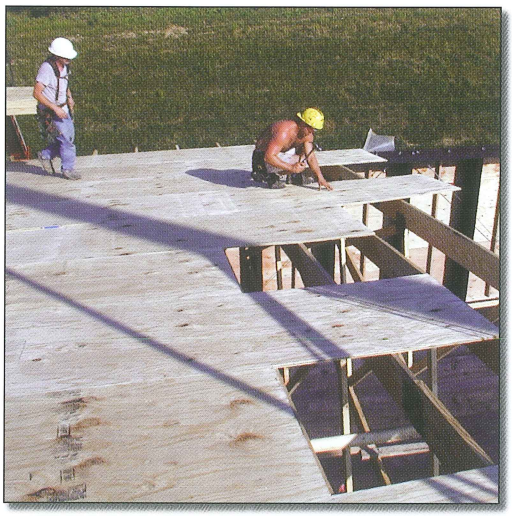
Keep Trusses Straight During Hoisting:
Long span trusses tend to snake out-of-plane. It is very important to provide support so the trusses flex as little as possible. A good hoisting device and spreader bar can provide support and be a real time saver.





Sheath the Top Chord as You Install Trusses:
Save time by applying permanent top chord sheathing immediately. Installation is also safer when the crew can work from a sheathed deck.

Install All Permanent Bracing Immediately:
Once the installation crew becomes familiar with the procedure, the permanent bracing for webs and bottom chords can be installed in the time it takes to release the hoist and install the next truss.



Visit www.woodtruss.com/longspan.php for a detailed handling and installation strategy, articles on long span truss installations, and more resources for temporary and permanent bracing of metal plate connected wood trusses.

NOTE: The Truss Manufacturer and Truss Designer must rely on the fact that the Contractor and crane operator (if applicable) are capable to undertake the work they have agreed to do on a particular project. The Contractor should seek any required assistance regarding construction practices from a competent party. The methods and procedures outlined are intended to ensure that the overall construction techniques employed will put floor and roof trusses into place SAFELY. These recommendations for handling, installing and bracing wood trusses are based upon the collective experience of leading technical personnel in the wood truss industry, but must, due to the nature of responsibilities involved, be presented only as a GUIDE for use by a qualified Building Designer or Erection/Installation Contractor. It is not intended that these recommendations be interpreted as superior to any design specification (provided by either an Architect, Engineer, the Building Designer, the Erection/Installation Contractor or otherwise) for handling, installing and bracing wood trusses and it does not preclude the use of other equivalent methods for bracing and providing stability for the walls and columns as may be determined by the truss Erection/Installation Contractor. Thus, the Wood Truss Council of America expressly disclaims any responsibility for damages arising from the use, application, or reliance on the recommendations and information contained herein.

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Truss Technology IN BUILDING
An informational series designed to address the issues and questions faced by professionals in the building construction process.