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4 Ways to Save Construction Time

Building designers and detailers have the opportunity to specify products and details that reduce erection time of prefabricated components on site.

In this article, we look at four construction details that save installation time.

TEMPORARY BRACING:

After roof trusses are placed into position on the walls, they have to be adequately braced to prevent them flexing about their weak axis, before they are capable of supporting any installation or permanent loads.

As an alternative to long timber ties, temporary truss ties such as TrussSpacers, provide a faster and more accurate method of setting out and temporarily bracing roof trusses. These ties are ideally pre-fitted to the truss on the ground prior to lifting. Once the trusses are in position, the truss tie is then swivelled around, hooked over the adjacent truss, and hammered into place to brace them securely together. Their standard length matches the desired truss spacing accurately, and their handy hook design improves safety by freeing up the installer's hands.

TRUSS TO TOP PLATE CONNECTIONS:

Connecting a truss to the support wall is undoubtedly the most common connection to perform, typically accounting for over 50 per cent of the total truss connections in a building. With this in mind, it makes sense to use framing anchors which are quick and easy to install.

There are several engineered building products on the market that accomplish this task. Two such roof tie downs of note are the TrussGrip and CT180, which are quick and easy to install. The former utilises pre-punched teeth which are directly hammered into the truss and top plate without the need for nails; while the latter can be fixed

quickly with a coil nail gun, assisted by imprinted target rings and crosshairs on the bracket to facilitate aim.

Please refer to the manufacturer's literature for design capacities and detailed installation instructions.

FLOOR TRUSS INSTALLATIONS:

Floor trusses save installation time in at least two ways: firstly, by the judicious selection of top chord bearing where it suits, such as the floor framing around a stair void. It is more time efficient and economical to use the top chord to support the floor truss off the top of the header beam, rather than butting and fixing the floor truss with a Joist Hanger to the face of the beam.

Secondly, by making use of the inherent geometry of floor trusses to accommodate HVAC ducting, plumbing and electrical services through its natural cavities, without any need for cutting on site. These services are easily threaded through the existing gaps between webs to connect different areas of the building.

CONNECTION OF INTERNAL BRACE WALLS TO ROOF STRUCTURE

The shear transfer between internal bracing walls to the structural ceiling diaphragm is often neglected, even though it plays a vital role in the transfer of wind forces through the house. The traditional AS1684 shear blocks are vague and confusing, and rarely shown in construction drawings. They are easily inadequately installed or not at all.

The introduction of alternative products such as BraceWall brackets presents a better and quicker solution. They do not require the builder to make up the materials, and they eliminate installation uncertainty because the brackets have set holes and slots where nails must be installed. From a building surveyor's point of view, assessment is also made easier, as the brackets have certified strengths, and can be clearly seen.

For more details on these and other fixing solutions please contact your local nailplate supplier. **T**



Above: Temporary truss ties hold trusses straight and plumb prior to permanent bracing.

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