



By Brett Bolden, North Queensland Area Manager

The ever humble internal wall bracket

In GN Guideline 214, Tim Rossiter wrote about the importance of the Internal Wall Bracket (aka IWB or “L” bracket) and how to use it correctly. From recent site inspections, there is an alarming trend among a few carpenters attempting to use dodgy alternative methods which are far removed from the approved solutions in AS 1684.

Traditional IWBs should be loosely nailed at the top of each slotted hole to permit downward settlement of truss camber. In the modern version, further elongated slots are provided for the nails to be loosely fixed in the middle (Image 1) to accommodate reverse upheaval of slab edges from reactive soils. If uncertain, always follow the simple instructions stamped onto the brackets. The nails in the slots must be hand driven to allow free vertical movement of the truss up and down the bracket.

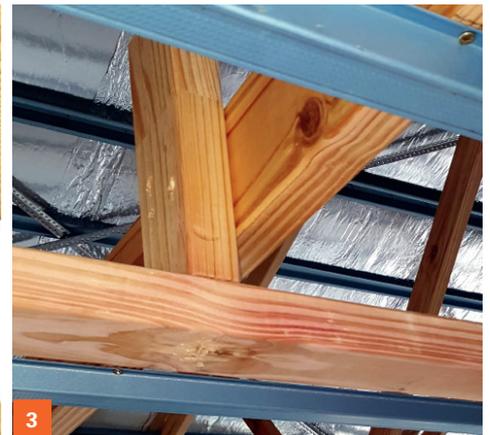
AS 1684 stipulates that IWB’s are to be installed at 1.8m maximum centres along the tops of non-loadbearing internal walls.

INAPPROPRIATE FIXING METHODS

A number of crude fixing methods recently caught the attention of the Queensland Building and Construction Commission during their routine site inspections for building compliance. These fixings have been dismissed as non-conforming with the requirements of the NCC and AS 1684. Here are some examples of non-conforming fixings:

Direct nailing into batten

Image 2A shows two nails shot from below the top plate into the metal batten above. If a stud should be in the way (Image 2B), the nails are shot even higher into the feet of the metal batten. These defective fixings count on unreliable bending of nails on thin metal to hold the wall straight, and the greater the gap below trusses with large cambers, the weaker the connection; whereas the smaller the gap, the more likely



the battens will rest and bend over the wall causing ceiling and cornice cracking issues.

Timber block

Image 3 shows a timber block fixed to the side of a truss and nails shot up through the top plate into the block. This type of connection does not permit the truss camber to settle gradually. Instead it will wait until an inopportune moment after the cornices are installed, for the vertical nails to suddenly give way and instantly crack the plasterwork. Truss cambers must instead be allowed to settle steadily over time as the timbers creep.

There are ramifications for installing inadequate connections merely for convenience. From a compliance viewpoint,

any method other than a correctly used IWB will be deemed as an alternative solution by the NCC. It has then to be supported by convincing evidence of suitability, and that could hold up your building project for some time. As IWBs are approved in AS 1684 “Residential Timber Framed Construction” and AS 4440 “Installation of Nailplated Timber Trusses”, they are automatically considered as deemed-to-comply by the NCC.

Since the QBCC has begun instigating enforcement against such non-compliance, other state regulatory bodies will no doubt be checking on this issue in their region as well. The cost and delay incurred to rectify non-conforming connections is an unnecessary expense when an inexpensive IWB could have avoided it altogether. **T**

Visit mitek.com.au for all guidelines

