



June 2019

## **CUT-IN PLYWOOD BRACING**

We receive queries from time to time about the use of cut-in plywood bracing when manufacturing prenailed wall frames – evidently there are some Councils (and even engineers) who believe that this method of bracing is not allowed. Over the past two or three years we have tried to have someone make a firm decision on whether this practice is or is not permissible.

Our Member Services Executive, Ian McGregor, talked to BRANZ about the issue in June 2019 and was encouraged by their attitude toward reaching a definitive solution. They have confirmed that inclusion of this bracing method in NZS 3604 would be the ultimate solution, while acknowledging that this is unlikely to happen any time soon as reviews of the standard are few and far between. BRANZ are considering including some mention of the matter in one of their upcoming guideline publications.

In summary, BRANZ have been involved in dealing with this matter on several occasions; they published a short comment on it in an earlier (2007) version of what is today their guideline booklet, and they remain satisfied with the in-depth testing carried out by Winstone Wallboards (WWB) in 2007/2008. They consider that the conclusions drawn from that research and test trials are as current today as they were then.

The final report from WWB concluded that **“rebating the studs and adding a plywood panel increases the out of plane bending stiffness of a wall section, and further that the addition of the plywood panel also enhances the out of plane bending strength of the wall section”**.

Further comment from an engineer has confirmed that the WWB results, the details of which he has checked himself, show that **“the reduced thickness of the J-Frame represents no loss of structural integrity of the unit as the Eco-Ply attached as a bracing element more than compensates for the lost material”**. The engineer added **“The Eco-Ply bracing will not have a reduced capacity from being fixed to an 82.5mm frame as opposed to a 90mm frame”**.

A representative of CHH Wood Products in 2012 wrote: **“The WWB report confirms that the rebated stud with the plywood nailed to the studs is in fact stiffer than a full 90 x 45 stud without plywood. This means that there are no structural implications of concern when rebating studs”**.

This summary is the best we can offer at this time, but BRANZ and FTMA are working together to establish some sort of official and definitive statement. If Councils or other parties query your cut-in plywood bracing units, you can advise them to talk to Ian McGregor or alternatively refer them to the BRANZ Helpline (0800 808 085) for further assistance.

ENDS