

BUILD RIGHT

Built-up members



BY TOM EDHOUSE,
BRANZ TECHNICAL
ADVISOR

NZS 3604:2011 PERMITS THE USE OF BUILT-UP MEMBERS, EXCEPT FOR JACK STUDS, BOTTOM PLATES OR TOP PLATES, WHICH MUST BE SOLID TIMBER. HOWEVER, THERE ARE A FEW RULES TO FOLLOW.

Built-up members can be substituted for other solid members provided they:

- are the same grade of timber
- are in one length
- match or exceed the size required in the NZS 3604:2011 tables when built up.

Built-up members are permitted to be up to six framing members nailed together, provided the following nailing requirements are satisfied.


Up to three pieces

When the member is up to three members:

- the spacing of the nails must not exceed six times the thickness of the thinnest member
- all nails are required to penetrate at least three-quarters of the last framing member
- nails are to be driven from alternate faces of the member (see Figure 1).

When members are 140 mm or more in width, at least two rows of nails are required as above (see Figure 2).

Over three pieces

Where the built-up member consists of more than three members, assemble the first three as above, then nail additional layers with nails twice as long and spaced at six times the thickness of the member added (see Figure 3). 

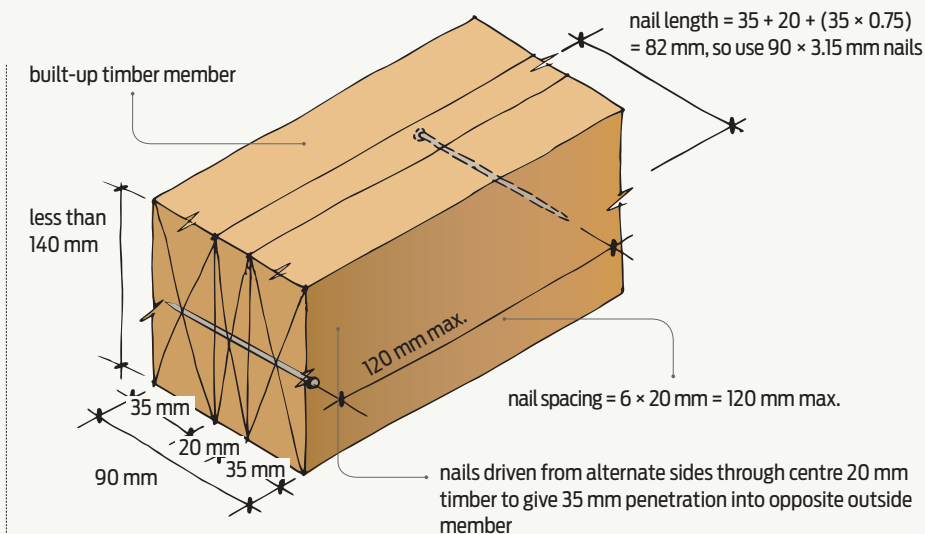


Figure 1 Built-up horizontal member under 140 mm depth (for lintels and beams).

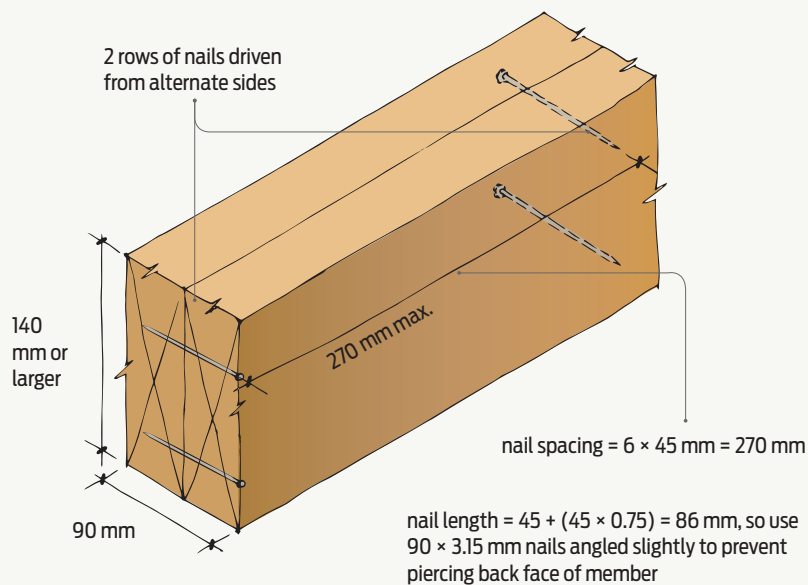


Figure 2 Built-up horizontal member 140 mm or deeper (for lintels and beams).

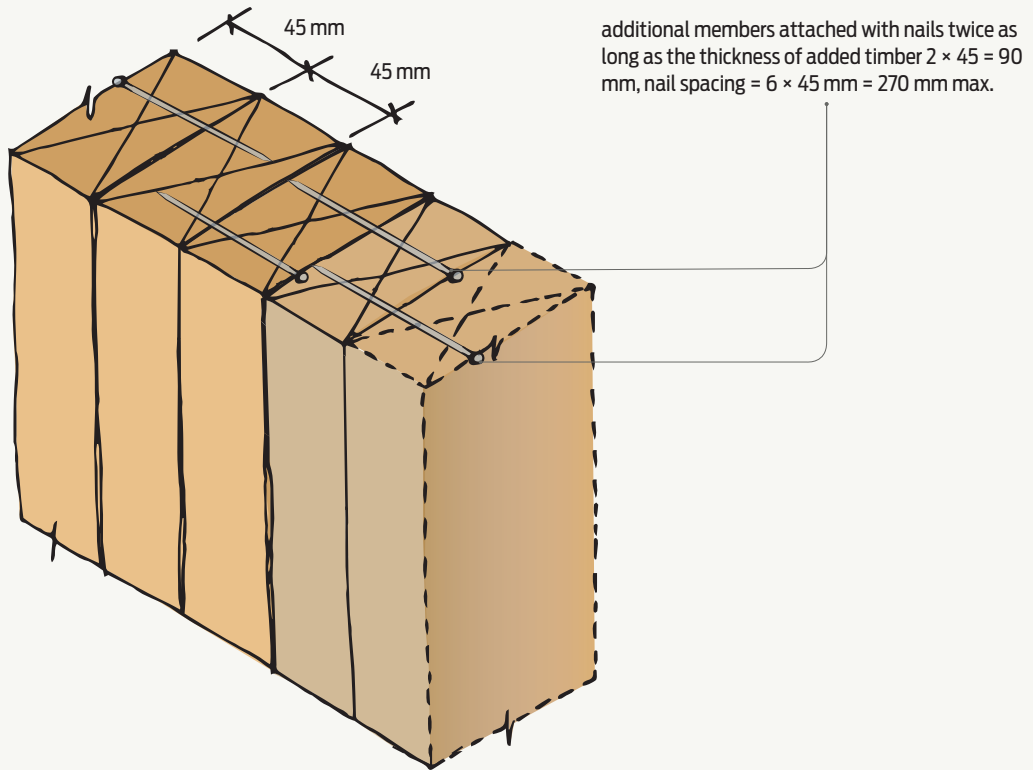


Figure 3

Built-up member made of more than three vertical members (usually for trimming studs).