

Supplementary protection to cut surfaces of treated timber

NZS 3602: 2003 Clause 106.2 (timber in contact with ground, to achieve 50 year durability) requires house piles and poles to be treated to H5, and any cut or bored surfaces shall have in situ treatment in accordance with NZS 3640. It is also a requirement of NZS 3604 clause 6.4.3.3.

NZS 3640: 2003 Informative Appendix B5 (Machining and sawing treated timber) says it is advisable to apply supplementary protection, as prescribed by the manufacturer, to H3.1 and higher timber, if cut or machined after treatment. Appendix B5 is recommended practice, and Clause 1.2.4 (Definitions) clarifies that the term "informative" identifies information provided for guidance or background but that does not form part of the mandatory requirements. Hence, it is not a mandatory requirement to apply supplementary protection to cut ends of H3.1 treated timber.

Painted or stained timber weatherboards must always have cut ends sealed before installation.

AS/NZS 1170

The recent amendment to Building Code Clause B1 Structure, which adopted AS/NZS 1170 as the structural design standard may, in some areas of the country, change the wind zone classification. For example, in parts of Wellington and the Kapiti Coast, this has meant that sites that were very high wind under the old standard NZS 4203 are now specific design under AS/NZS 1170. If not taken account of, this can cause problems at consent stage where the structural design work was carried out before the adoption of the new standard.

While NZS 3604 has not changed, the councils' assessment of the wind zones may have changed with the adoption of the new NZS/AS 1170 standard.

Skillion roof timber ceiling batten treatment

Under NZS 3602 Table 1D.3 radiata pine timber ceiling battens installed in low slope skillion roof construction (under 10°) where the ceiling lining is a structural diaphragm must be treated to H3.1 to achieve a not less than 50 year durability.

Windows and drained and vented cavities

Under E2/AS1, aluminium windows installed into a wall cladding system installed over a drained and vented cavity system can have the window sill and jamb flanges installed firmly against and sealed to the wall cladding materials. Any water that might get in and need to be drained can be managed by the cavity.

However, where a direct fixed cladding system is being installed, there must be a 5 mm gap between the back of the sill flange and the cladding to allow water that might get in to drain from the sill tray flashing. The jamb flanges can be sealed to the cladding using a method that will effectively seal but maintain the 5 mm gap – commonly done with a 12 mm wide sealed cell compressible PVC foam strip complying with paragraph 9.1.10.7 of E2/AS1.

LRV

E2/AS1 paragraph 2.4 specifies a light reflective value (LRV) of 40% or more for EIFS and flush-stopped texture coated fibre-cement claddings to minimise the risk of thermal movement resulting in cracking and the potential for water entry.

Specifying a light colour on all cladding will significantly reduce the amount of heat absorbed by the cladding and the resultant thermal movement.

Stair dimensions

Acceptable Solution D1/AS1 classifies the types of stairs that might be permitted in buildings and gives the pitch limits and the dimensional requirements for risers and treads of each.

Information on stair design and construction is also given in BRANZ Bulletins 495 *Stair design* and 487 *Stair constructions*.

Ground clearances for timber slatted decks

How close to the ground can a deck be built? If following NZS 3604, the minimum pile height above the ground is 150 mm with a DPC. However, for a number of existing and new buildings, once the bearer and joist depth is added, the timber slatted deck may be higher than the floor level inside the building.

Even though a deck close to the ground doesn't require a building consent, its construction must comply with the Building Code – in the case of a low deck, it is primarily the durability of the timbers used and structure. Any timber in ground contact (even if sitting on a concrete pad at ground level) must be treated to H5, while decks that allow a gap between the timber and the ground can be constructed using H3.2 treated timber.

Options to allow a low deck to be constructed can include:

- bolting bearers to the sides of piles
- supporting joists directly on concrete pads (using H5 treated timber and installing a DPC between the timber and the concrete is recommended) – some form of connection of the timber to the concrete, such as corrosion-resistant metal brackets or cast-in bolts, will need to be provided
- bolting joists to cantilevered metal brackets embedded in a concrete pad to allow the timber to be supported clear of the ground (for this type of installation, decks should be attached to the building to provide lateral stability and therefore should be no wider than 2.0 m). When wider than 2.0 m some form of lateral support will need to be provided to stiffen the deck construction such as an anchor pile.

Suitable decking timbers

The main reference when selecting suitable timber for decking is NZS 3602 Table 2A7. When timbers other than treated Radiata pine (cypress species, vitex, kwila, eucalyptus or beech) are being considered, the timber must be heart timber to give the required minimum durability of not less than 15 years.

Also, if imported timber is being used for decking, ascertain whether it is from a sustainably managed source.

BRANZ Landscape construction book

It has just been brought to our notice that versions of this book with the new BRANZ logo on the front cover have the wrong drawing inserted for Figure 23 on Page 55. A corrected Figure 23 with the correct drawing and notes is available for download from the BRANZ publication updates page at www.branz.co.nz/publication_updates

New from BRANZ Publishing

BRANZ has just published a further title (bringing the total number of titles to 10) in the Level Sustainable Building Series – *Plumbing*. Coming in June is number 11 in the series – *Electrical systems*. Order available titles online at www.branz.co.nz

Historical construction details – send us your details

One BRANZ project for this year is to compile and publish as CAD files a database of historical construction details (classified by building age and style) to assist primarily designers and builders carrying out renovation work on existing buildings. We would appreciate it if you could send us a sketch or description of any details you have come across to assist our compilation of a comprehensive resource.

BRANZ Seminars 09

The second seminar for the 2009 year – covering compliance path options for those consent applications that fall outside the scope of Acceptable Solutions – is nearing the end of its programme. Having Alternative Solutions consented has created some difficulties between designers and BCAs, and this presentation, for both parties, has the aim of giving guidance on the submission and processing of these applications.

Venues and dates are:

13 May	Tauranga
14 May	Palmerston North (<i>limited space available</i>)
15 May	Wellington (<i>starting at 9 am</i>)

Note that an extra seminar has been confirmed for **Wellington on 15th May**.

Visit our website for more details and to register online – www.branz.co.nz (click on seminars)

In August/September BRANZ will be presenting a seminar (in 22 centres nationwide) for designers including those specialising in kitchens and bathrooms, BCA officials, builders, plumbers, tilers and waterproofing applicators on 'good' design and construction principles and practices for wet areas within buildings. Mark your diaries now.