November 2013

Checking or notching of bearers to relevel a building

A common question to the BRANZ helpline is, "Can we check the bearers to allow us to relevel a house?" Neither NZS 3604:2011 *Timber-framed buildings* nor the MBIE publication *Repairing and rebuilding houses affected by the Canterbury earthquakes* (available for free download through the MBIE website) have any provision that allows bearers to be checked, so any checking at pile support would fall into the category of specific engineering design (SED).

While there is provision in the MBIE publication in Part A Table 2.3 and the explanatory notes to the table to allow packing of piles at bearer crossings (for Canterbury), NZS 3604 is silent on the matter.

NZS 3604 does make provision for checking or notching of **joists** in Section 7 Figure 7.8.

Sizing steel lintels for brick veneer

Steel lintel sizes used to be given in NZS 3604:1999, but all cladding information was removed from the 2011 edition of the standard. The requirements for brick veneer construction are now contained in E2/AS1 (the 2011 version that incorporates Amendment 5). Steel lintel sizes are given in Table 18E on page 116.

Timber pile markings for anchor piles

Anchor piles must be branded with an 'A' mark to comply with clause 4.4. of NZS 3605:2001 *Timber piles and poles for use in building*. The marking must be:

- one-third of the length from the top and facing the top, or
- within 50 mm of the treatment brand facing the top, or
- it can be incorporated within the treatment brand.

NZS 3604:2011 clause 6.4.3.3 requires timber piles to comply with NZS 3605:2001.

Stud height definition

Stud height is the height measured from the top of the floor surface to the underside of the ceiling or, if there is no ceiling, to the upper surface of the top plate.

Where studs form a parapet and have a stringer attached to support a roof or ceiling, use the height from the floor to the top of the stringer to establish the required stud size in Table 8.2 in NZS 3604:2011.

Also note that, with trimming studs, where the top of the lintel is more than 400 mm below the top plate, an additional trimming stud is required (Figure 8.5). The minimum thickness of the trimming stud is determined by Table 8.5.

Printing ALF 3.2 reports

To print out a report when using ALF 3.2, click on 'View results', which will open at the 'Graph' tab of the results section.

Click on the 'Report' tab, then click on 'Download PDF'. If the computer prompts you to 'Open' or 'Save', 'Open' will bring up the report on screen and allow you to print and save as per a normal PDF. If you want to save but not open the report, click on the down arrow by the 'Save' button to select 'Save as'. This will allow you to save the file to the folder of your choice.

For more information on the use of ALF, see Bulletin 555 *A Guide to ALF 3.2* and *Build* 115 'You asked: ALF 3.2'.

Fixings referred to in NZS 3604:2011 Table 2.2

NZS 3604:2011 Table 2.2 lists the fixing types in alphabetical order and shows where they are referenced within the standard. The fixing capacity is given in Table 2.2, but the table also allows the user to choose a different fixing of the same capacity as the fixing listed in the table.

When using an alternative fixing, users need to make sure the fixing chosen is rated for the same purpose, for example, fixings securing a member against uplift will need to match or exceed the given rating in tension.

News from BRANZ

Recently released by BRANZ are the following:

- www.maintainingmyhome.org.nz – a fully searchable website based on the BRANZ *Maintaining Your Home* publication.
- www.weathertight.org.nz – covering the principles of weathertight design for new and remediated buildings.
- BRANZ Good Repair Guides – the first five publications in a new series aimed at providing entry-level information on the repair of common building elements have just been released. They are *Interior Painting*, *Repainting Textured Finishes*, *Timber Windows*, *Horizontal Timber Weatherboards* and *Damp Subfloors*.

New publications from Standards New Zealand

NZS 3916:2013 *Conditions of contract for building and civil engineering – Design and construct*

This new standard is similar to NZS 3910:2013 C*onditions of contract for building and civil engineering construction* but has been adapted to cover situations where the contractor is responsible for design as well as construction. It provides a standard form of general conditions of contract for incorporation into construction contract documents for a wide variety of building and civil engineering projects. Contracts based on this standard will be comprehensive but at the same time easy to understand and will reflect fair risk allocation between the parties. It contains essential commercial provisions aligned with the requirements of the Construction Contracts Act 2002.

NZS 4541:2013 *Automatic fire sprinkler systems*

This new standard provides an integrated set of rules for the design, installation and maintenance of sprinkler systems so that systems reliably protect against the loss of life and minimise property damage from fire. It replaces NZS 4541:2007.

NZS AS 1884:2013 *Floor coverings – Resilient sheet and tiles – Installation practices*

This new standard provides minimum requirements for the installation and application of resilient floor coverings for New Zealand conditions to ensure that the installed product is fit for purpose and complies with New Zealand law and the New Zealand Building Code.

In addition to the revisions for the New Zealand adoption, this edition has included separate sections to explain the minimum requirements for the installation of different resilient flooring products, the requirements for different types of underlayment and subfloor preparation, additional guidance on moisture testing of subfloors and clear guidance on the treatment of joints in concrete subfloors. It is based on AS 1884-2012 but adapted for New Zealand conditions.

BRANZ seminars – *Passive Design*

The end-of-year BRANZ seminar will take a fresh look at the wide range of design and construction criteria collectively described as passive design.

A key aim of the seminar will be providing tools to enable designers and builders to incorporate passive design features into their buildings to make them warm, dry, well ventilated and comfortable, while reducing the need to purchase energy for space and water heating and cooling.

The seminar will be structured into sections designed to maximise the benefits of passive design covering, amongst other topics:

- subdivision layout to optimise passive design opportunities
- building siting and planning to enhance passive design features
- benefits of insulation
- providing sufficient thermal mass for effective winter heating while avoiding summer overheating
- use of building form and prevailing winds to enhance cooling and ventilation while reducing the need for mechanically assisted cooling
- using the sun to provide solar water heating and power
- greywater retention and use
- using rainwater and reducing stormwater run-off.

The seminar runs from 1.00–4.00 pm and will be presented by resident BRANZ Architect Trevor Pringle and Greg Burn of Structure Ltd, a design consultancy.

Centres remaining

13 November	Tauranga	Trinity Wharf Tauranga
14 November	Rotorua	Rydges Hotel
18 November	Wellington	InterContinental Wellington
19 November	Masterton	Copthorne Hotel and Resort Solway Park
20 November	Upper Hutt	Silverstream Retreat
25 November	Invercargill	Kelvin Hotel
26 November	Queenstown	Crowne Plaza
27 November	Greymouth	Kingsgate Hotel
28 November	Nelson	The Rutherford Hotel

Registration is now available on the BRANZ website.