March 2014

BOINZ conference 2014 – come and see BRANZ

BRANZ is a silver sponsor of the BOINZ conference on 6–9 April at the TSB Arena, Wellington. If you are in the area, come and visit and ask us about anything (related to building, that is) at stand 35. Admission to the trade area is free.

New from MBIE

A number of changes have recently been announced by MBIE:

- Updating of the referenced standards and minor amendments to the Acceptable Solutions and Verification Methods. The changes came into force early in February, but there will be a 6-month transition period where both the current versions and published amendments will be valid. After 6 months, the old versions will cease to have effect.
- Changes to the Building Act 2004 that will affect the work of building practitioners as well as homeowners working on their own properties.
- Changes to the types of work that may not require building consent. More low-risk work is now exempt from building consent, but while a consent may not be required, the building work must still comply with the Building Code.

With respect to Acceptable Solutions and Verification Methods, the following changes to key documents are outlined in the MBIE publication *Codewords*:

- **B1 *Structure***. Changes to incorporate amendments to the definition of good ground, wind loadings, stress grading and timber treatment standards, a revised standard for concrete masonry buildings and minor editorial changes. The standards for timber design and concrete design are modified. Changes apply to standards AS/NZS 1170.0, AS/NZS 1170.1, AS/NZS 1170.2, AS/NZS 1748.1, AS/NZS 1748.2, NZS 3640 and NZS 4229 referenced in B1/VM1, B1/AS1 and B1/VM4.
- **B2 *Durability***. Changes to incorporate amendments to the timber treatment standard and updating the reference to the timber design standard. Standards relating to timber treatment are modified. Changes apply to standards NZS 3604 and NZS 3640 referenced in B2/AS1.
- **C *Protection from fire***. Changes to incorporate amendments to test standards for smoke release and recessed luminaires and a revised standard for gas installations. The changes apply to standards NZS 5261, NZS 5601.1, AS/NZS 3837 and AS/NZS 60598.2.2 referenced in C/AS1-6.
- **E2 *External moisture***. Changes to incorporate revised standards for sheet metal cladding and for weathertightness of concrete and masonry. The changes apply to standards AS 1379 and AS/NZS 2728 and to CCANZ CP 01 referenced in E2/AS1 and E2/AS3.
- **E3 *Internal moisture***. Changes to incorporate minor technical changes for thermal breaks to metal framing and insulated wall cavities. The changes apply to E3/AS1.

A full summary of the changes is given in www.dbh.govt.nz/codewords-issue-059.

Determining spans from NZS 3604:2011

When determining a span, NZS 3604:2011 Figure 1.3 (F) indicates it is measured between joists, while Figure 1.3 (G) shows centre to centre. Which one should be used?

In the definitions section of the standard, it refers to support span as being the clear distance between supporting members measured horizontally so this is what we believe should be used.

What can be used for a ceiling diaphragm when using NZS 3604:2011?

General requirements are:

- a sheet material
- a minimum sheet size in the body of the diaphragm of 1800 x 900 mm. Use full sheets where possible – offcuts can be used at the edges to complete the diaphragm.

Material options for ceiling diaphragms given in NZS 3604:2011 are:

- plasterboard with a thickness of not less than 10 mm and a density of not less than 600 kg/m^3
- plywood not less than 6 mm thick with a minimum of three plies
- wood-based sheet products not less than 6 mm thick with a minimum density of 600 kg/m^3 or not less than 4.5 mm thick and a minimum density of 880 kg/m^3
- fibre-cement sheet not less than 6 mm thick with a minimum density of 600 kg/m^3 or not less than 4.5 mm thick and a minimum density of 880 kg/m^3
- fastenings not less than 10 mm from the edge and at 150 mm centres around the edges of all sheets and at 300 mm centres to intermediate supports.

Parameters specific to plasterboard diaphragms are:

- a maximum length of 7.5 metres
- a maximum ceiling slope of 15°.

Specific parameters for plywood, fibre-cement or other wood-based sheets are:

- a maximum length of 12 metres and a maximum ceiling slope of 25° or
- a maximum length of 7.5 metres and a maximum ceiling slope of 45°.

A ceiling diaphragm must have a length of not more than twice its width (length and width are measured between supporting bracing elements), and the basic shape is to be rectangular (cut-outs are not permitted).

Minimum heights for braced piles

The minimum permitted height for a braced pile is three times the distance from the lower brace connection to the cleared ground level (CGL) to ensure there is sufficient slope on the brace to make it effective. If the bolt that attaches the lower end of the brace is at the minimum distance permitted by NZS 3604:2011 of 200 mm, the minimum pile height permitted is 600 mm measured from CGL to the underside of the bearer. If the connection to the lower end of the brace is at the maximum permitted height above CGL of 300 mm, the minimum height for the pile is 900 mm from CGL to the underside of the bearer.

Flood damage repairs

For guidance on flood damage repairs to houses, see Bulletin 455 *Restoring a house after flood damage*, which is available as a free PDF download.

Timber in contact with steel

Where H1.2 treated timber or H3.2 treated timber is in contact with a structural steel member in a dry and enclosed situation, there is no requirement to separate the timber from the steel with a DPC.

Where there is a chance of condensation on an enclosed steel beam (where there is the risk that it could form a thermal bridge), installing a DPC is considered good practice to prevent the potential for the moisture to:

- affect the durability of the treated timber

- affect the durability of the steel where the timber is H3.2 treated using copper-based treatments – the DPC will restrict the possibility of the steel being corroded as a result of the dampness combined with the effect of the copper treatment.

Where timber treated with a copper-based treatment is to be used in an exposed position and bolted to galvanised steel beams, expert advice should be obtained to assess the corrosion risk to the steel and suggest a design solution.

BRANZ seminars – Technical update advance notice

During June and July, BRANZ will be running a series of seminars for designers, builders and BCA staff that will revisit the key requirements and the areas of E2/AS1 and NZS 3604:2011 that are more difficult to interpret. While development of the content has not yet started, topics to be covered are likely to include:

- the E2/AS1 risk matrix
- the function and performance of cavities
- working through NZS 3604:2011 bracing
- use of NZS 3604:2011 stud and other framing tables
- slab reinforcing requirements.