Guideline

November 2017

Welcome to this update on technical and informative advice for the building and construction industry on issues relating to building controls and good construction practices.

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Hazardous substances

New rules nearly here

On 1 December 2017, there will be a change to the way hazardous substances are dealt with in the workplace. This is when the Health and Safety at Work (Hazardous Substances) Regulations 2017 come into force. WorkSafe New Zealand has already published a large number of publications in anticipation of these changes, and these can all be searched for and linked to through BRANZ Find. A simple keyword search "WorkSafe 2017" will give you a list of useful publications. A good resource to start with is the interpretative guidelines document called *New rules for hazardous substances*.

Drained cavity height limits

There are limits under E2/AS1

Acceptable Solution E2/AS1 places a height limit for a drained and vented cavity of 7 metres. This allows a 2-storey cavity to be installed without an inter-storey drained and ventilated joint (although the cladding supplier may require a flashed joint at each floor level). Where a 2-storey wall incorporates a gable, it's likely the cavity will have a height of more than the 7 metres and need to be drained at some point over its height.

Where the cavity height exceeds 7 metres, a horizontal flashing that bridges the cavity and provides drainage and an opening to the outside will need to be installed. In most cases, the logical location is at an intermediate floor level.

Window sizes and E2/AS1

Even more limits under E2/AS1

When using E2/AS1 as a means of compliance for window selection and detailing, there are limitations relating to frame materials (for aluminium only) and window dimensions. In addition, E2/AS1 (section 9.1.10) only covers windows and doors with a horizontal head.

The limitations applying to windows and doors are:

- a maximum horizontal or vertical frame dimension of 5 m
- a maximum overall frame area for any one frame of 13.5 m^2.

This means a 5 m wide window can be up to 2.7 m high to stay within the area limits. Where the sill is at floor level, the maximum frame width is 6 m and the maximum overall frame area is 16 m^2.

Windows outside these parameters must be submitted for consent as an alternative method, with supporting information on the design to accommodate wind loads, installation methods and fixings and weathertightness performance.

Some other E2/AS1 requirements:

- For direct-fixed claddings, windows and doors shall have a 5 mm stand-off of the flange to the cladding. The gap at the jamb flange can be sealed but must be left open at the sill to allow for drainage and air intrusion to the trim cavity for pressure equalisation. Windows in direct-fixed claddings also require a sill tray flashing.
- Head flashings finished to the wall underlay (E2/AS1 Figure 71) by either using flexible flashing tape or lapping an additional layer of wall underlay over the upstand.
- Fixing in place using pairs of minimum 75 x 3.15 mm galvanised jolthead nails or 8 gauge x 65 mm stainless steel screws. Fixings must go through reveals into surrounding framing at a maximum of 450 mm centres along sills, jambs and heads, with the corner fixings within 150 mm from reveal ends.
- For claddings installed over a cavity, a sill support bar for all doors and for windows with a trim opening wider than 600 mm.
- In very high and extra high wind zones, installing sealant between the underside of the head flashing and the top edge of the window head flange.

Schedule 1 and pile replacement revisited

What is the limit?

One *Guideline* recipient has questioned our advice that MBIE determinations 2013/58 and 2013/71 considered that up to 20% of piles could be replaced before the need for a consent is triggered.

While these two determinations related to earthquake repair in Christchurch, they are MBIE-published documents that give some guidance as to what may be considered a trigger point.

In giving this guidance the MBIE determinations also stated that:

- ground conditions, topography, the size and use of the building and the replacement's contribution to structural integrity of the building need to be taken into account
- to decide whether the replacement foundation was 'comparable' with the original foundation, a number of factors have to be considered including whether:
    - it was located in the same position
    - it performed the same function
    - the materials were compatible
    - the finished assembly had a similar complexity.

BRANZ Find – keeping track of what's new

The updater

Keyword searching is a quick and easy way to locate the publications and resources you are looking for in BRANZ Find. However, you can also use the useful A–Z browse feature, which has over 370 different building and construction topics. Choose a topic area you want to search in using the A–Z browse directory, then refine your search by adding keywords.

BRANZ seminars 2017/18 *Keeping Water Out*
Basements, Bathrooms and Decks

Basements, bathrooms (particularly tiled showers) and decks are known areas of higher risk in terms of potential issues related to water entry and/or migration to adjacent spaces.

This 21-centre seminar will cover the principles of:

- why we need to waterproof effectively
- the requirements of the Building Code Acceptable Solutions and standards
- waterproofing material options
- waterproofing extent
- key design parameters – the definition of wet areas and splash zones for bathrooms, slopes to bathroom floors and decks
- substrates and their preparation
- key waterproofing system application requirements such as application rates and curing
- key aspects of detailing
- drainage – behind walls, external for decks and internal for bathrooms
- inspection and maintenance
- for bathrooms – specific issues around freestanding baths, preformed showers, level-entry showers and finishes to walls.

This seminar is a must for architects, designers, BCAs, builders, tilers, waterproofers, roofers, building surveyors and house inspectors.

Presenters

Greg Burn – NZCD(Arch), DipBus (Marketing) – Structure Ltd
Des Molloy – the 'Old Geezer' returns again

Dates and locations

Mon 20 Nov	Napier	Napier Conference Centre
Tue 21 Nov	Palmerston North	Distinction Palmerston North Hotel & Conference Centre
Wed 22 Nov	Upper Hutt	Trentham Gardens Functions and Events Centre
Mon 27 Nov	Invercargill	Ascot Park Hotel
Tue 28 Nov	Queenstown	Heritage Queenstown
Wed 29 Nov	Dunedin	Forsyth Barr Stadium
Mon 4 Dec	Nelson	Rutherford Hotel Nelson
Tues 5 Dec	Hokitika	Order of St John Hokitika
Wed 6 Dec	Christchurch 1	Sudima Christchurch Airport
Wed 7 Feb	Timaru	Landing Service Conference Centre
Thu 8 Feb	Christchurch 2	Addington Events Centre
Fri 9 Feb	Blenheim	Scenic Hotel Marlborough
Mon 12 Feb	Tauranga	Trinity Wharf
Tue 13 Feb	Rotorua	Millennium Rotorua
Wed 14 Feb	Auckland – North Shore	QBE Stadium
Mon 19 Feb	Auckland – Central	Crowne Plaza Auckland
Tue 20 Feb	Hamilton	FMG Stadium Waikato
Wed 21 Feb	New Plymouth	The Devon Hotel
Mon 26 Feb	Kerikeri	Turner Centre
Tue 27 Feb	Auckland – Ellerslie	Ellerslie Event Centre
Wed 28 Feb	Wellington	InterContinental Wellington

All seminars run from **1.00–4.00pm**.

Online registration is available now.