GUIDELINE BRANZ
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June 2014

Hub for universal design

BRANZ has recently completed a website for universal design of new and existing homes in New Zealand. Universal design –sometimes known as 'design for life' or 'barrier-free design' – is the principle of incorporating features into buildings and their immediate surrounds to ensure that they are widely accessible to all ages and all abilities while minimising compromise. It's about making homes accessible, safe and functional, while not compromising on aesthetics.

The website is the result of an initiative spearheaded by ACC with the goal of providing an online library of 'how to' and promotional resources for the design community, which is complementary to the New Zealand-specific websites and information already available. Resources for the site were tailored according to the results of a New Zealand-wide survey of potential users conducted in 2013. The BRANZ site includes dimensioned drawings for key areas, a tailored costing calculator, a gallery of design photographs and the best international resources available.

BRANZ sees this as a living website to be updated to ensure ongoing relevance. We invite your feedback – please visit www.branz.co.nz/universal_design.

Discussion document released around health and safety reforms

The Ministry of Business, Innovation and Employment has released a discussion document that outlines proposals for the new health and safety regulations. The regulations will support the new Health and Safety at Work Act, which is expected to come into force in April 2015.

One proposed change that is particularly relevant to the construction industry relates to employers' duties around overcrowded workplaces. The current Health and Safety in Employment Regulations 1995 provide that temporary places of work such as construction sites are exempt from requirements on employers to ensure their workplace is free from potential hazards created by overcrowding. The new regulations would focus more on the suitability of layout rather than overcrowding and, in light of this change, would remove the exemption for construction sites.

The discussion document outlines a second phase that would see a second set of regulations introduced in 2017. This second phase will involve consideration of whether further industry-specific regulations are needed, including in the construction industry. The proposed regulations are strongly influenced by the Australian model regulations, which have specific health and safety regulations for the construction industry.

Submissions for feedback on the proposals will close on 18 July 2014. Read more about the changes in an article from our lawyers Kensington Swan here.

Windows in direct-fixed cladding

E2/AS1 requires the fixing of sill support bars to the outside face of the framing under aluminium windows and doors that are more than 600 mm wide when windows are installed into a cavity cladding system. With a cavity cladding system, the window section is typically forward of the framing line, and combined with the weight of double glazing, this means that this weight needs to be transferred back to the framing by the support bars.

Sill support bars are not required by E2/AS1 for windows installed into a direct-fixed cladding. However, the weight of the window should be supported on packers (installed to align with the setting blocks supporting the glazing unit) under the window to transfer the loads to the framing.

The sill tray flashing required for windows in direct-fixed claddings also needs solid support at the same points as the window so the weight of the glass is supported.

NZS 3604 Table 8.5 Trimming studs

There is a note in Table 8.5 of NZS 3604:2011 *Timber-framed buildings* that requires an additional trimming stud to lintels when using brick veneer cladding so that the wall ties have something solid to be fixed to. The extra trimming stud requirement also applies where a trimming stud is less than 90 mm wide. It is not required where there is a trimming stud and a doubling stud that are each 45 mm in width and the doubling stud is less than 400 mm shorter than the trimming stud.

Roof underlay installation requirements for metal roofs

Installation requirements for roof underlays for metal roofs are given in E2/AS1 and also in the Metal Roofing Manufacturers *NZ Metal Roof and Wall Cladding Code of Practice* (MRM COP).

Installation parameters given include the following:

- How far the underlay should extend into the spouting – the MRM COP version 2 specifies a maximum overlap of 20 mm with the spouting to prevent wicking of water into the underlay.
- The height of the roofing underlay turn-up or stop-end where a roof abuts a wall – underlay should turn up the wall to at least the height of the apron flashing upstand.
- Whether underlay is required under metal internal gutters and valley flashings. It is. Underlay separates the metal from timber and prevents condensation being absorbed directly into the timber.
- Lean-to roofs at the apex – roof underlay should turn down over the wall underlay.
- Which laying direction for underlay is permitted. Horizontal laying is required for roof pitches up to 10°. The underlay may be run vertically or horizontally for roof pitches 10° and over.
- The lap requirements – 150 mm. Lap upper layers over the lower when running underlay horizontally. For vertical installation, side laps are 150 mm and end laps should be avoided.

Weatherboard specification requirements

The requirements for timber weatherboards are found in NZS 3602:2003 *Timber and wood-based products for use in building* Table 2, 2A.1, which covers permitted species, grade and/or treatment required and the maximum moisture content and applies to all weatherboards whether stained or painted.

This part of Table 2 also refers to clause 111.2, which identifies additional requirements such as no knots or resin pockets.

E2/AS1 references the profiles that may be used from NZS 3617:1979 *Specification for profiles of weatherboards, fascia boards, and flooring*, and BRANZ Bulletin 411 *Recommended timber cladding profiles* and E2/AS1 Table 24 cover the fixing requirements.

Large metal roof penetrations

For flue and other roof penetrations that exceed the limits of E2/AS1, penetration detailing options are given in BRANZ *Good Practice Guide: Long-run Metal Roofing*, BRANZ Details for metal roofing and the Metal Roofing Manufacturers *NZ Metal Roof and Wall Cladding Code of Practice* Section 6.

New from BRANZ – Maintenance Schedule

The BRANZ Maintenance Schedule is a brand-new web-based tool that:

- records in one handy place all the materials used in a building
- saves you time and effort by allowing you to easily create a maintenance schedule
- gives your clients a comprehensive maintenance guide
- helps manage your legal liability if anything goes wrong.

Simply enter the materials and finishes used, and the tool automatically enters the maintenance required. Print a copy to present to clients, and save one in your records.

Lack of maintenance can bring expensive problems, and these can result in legal challenges. With a maintenance schedule, clients know how to keep their property in top condition, and you have an easy-access record.

BRANZ has a special introductory price for a single licence of just $35 (usual price is $49). Log in to your My BRANZ account and use promo code MS001 when ordering. A licence for 5 reports is $99.

Buy licences online at www.branz.co.nz/shop (choose Maintenance Schedule Licence in the dropdown menu), then visit maintenanceschedules.co.nz or call our technical helpline on 0800 80 80 85.

ALF 3.2 – in the 'View Results' section, what do 'other gains' refer to?

A common question regarding ALF is what do 'other gains' refer to? Heat gains within a building can come from the occupants and from household appliances, while losses related to heat being lost from a building are primarily by ventilation and exfiltration via the building envelope or flues.

BRANZ Maps

BRANZ Maps, available free from the Toolbox on the BRANZ website, can be used to obtain information about a particular site, namely:

- **earthquake zones** as per NZS 3604:2011 – the earthquake zones are modified versions of those in Figure 5.4 of NZS 3604:2011 so that they better align with NZS 1170.5:2004 *Structural design actions – Earthquake actions – New Zealand*
- **exposure zones** based on Figure 4.2 of NZS 3604:2011
- **wind regions** and lee zones as per Figure 5.1 of NZS 3604:2011
- **climate zones** based on Figure B1 in NZS 4218:2004 *Energy efficiency – Small building envelope* for use with H1/AS1
- **rainfall intensity** for use with E1/AS1 – rainfall Intensity values are sourced from NIWA's High Intensity Rainfall Design System (HIRDS) calculator and correspond to a 10-minute rainfall intensity with an annual probability exceeding 10%.

BRANZ seminars: *You Asked – 24 Critical Questions Answered* – final sessions

You Asked, a series of seminars for designers, engineers, builders and BCAs, provides a technical update and answers to important questions to the BRANZ Helpline:

- What is the content and importance of MBIE Advisory notes?
- For bracing, how are 'along' and 'across' defined?
- Why can't I substitute a similar product that I can get cheaper?
- Why is installing cladding over a cavity considered easier than direct fixing?
- Why is the scope of a BRANZ Appraisal important?
- How close to the edge of a slab can a fixing be?
- How much bracing is provided by existing construction?
- Why is an air barrier important in a wall cladding system?
- How do we know cavities work – the science behind cavities – the 4Ds?
- Why are multipliers used in NZS 3604 tables?
- How can I use the E2/AS1 risk matrix as a design tool?
- Are the 4Ds of weathertightness still relevant?
- What is the way to work out the loaded dimension and member spans?
- Why can my deck joists have a bigger span, and how do I calculate bracing?
- What do I need to consider when specifying wall underlays and flexible flashing tapes?
- Why do I have to use stainless steel with some new timber treatments?
- How can we use the benefits of diaphragms and dragon ties?
- What are the advantages and drawbacks of top venting of cavities?
- What are the differences between a wet cavity and a dry cavity?
- How were risk scores of the E2/AS1 risk matrix determined?
- How can I use E2/AS1 to support another way of detailing?
- What are the rules for tying down roof framing and lintels?

…and much, much more, including questions you wish to ask on the day – definitely a technical update and clarification session not to be missed.

Presenters:

Greg Burn has extensive knowledge and experience in the processes of building design and construction and an understanding of building technology and New Zealand standards for residential construction and Building Code compliance. He has presented of a number of national seminars for BRANZ. Greg has also run industry-based training courses and written a number of technical articles and books.

Harry Dillon is a weathertightness specialist. He has over 20 years' experience in the construction industry, primarily in the area of weathertightness. Harry has been the guest speaker at a variety of industry conferences and was the main presenter for the recent Ministry of Business, Innovation and Employment national seminar series *Weathertightness – An Induction Course for Builders*.

Confirmed dates and venues

Nelson	Monday	23-Jun	The Rutherford Hotel
Blenheim	Tuesday	24-Jun	Marlborough Vintners Hotel
Wellington	Wednesday	25-Jun	Mac's Function Centre
Timaru	Monday	30-Jun	The Function Centre
Hokitika	Tuesday	1-Jul	Beachfront Hotel Hokitika
Christchurch	Wednesday	2-Jul	Addington Events Centre
New Plymouth	Monday	7-Jul	Quality Hotel Plymouth International
Wanganui	Tuesday	8-Jul	Kingsgate The Avenue
Upper Hutt	Wednesday	9-Jul	Silverstream Retreat

Seminars run from 1–4 pm at all venues, and we would appreciate registration being completed by 12.50 pm. Online registration is now available on the BRANZ website.