



Guideline

December 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.

In this issue: [Acceptable Solutions](#) • [Some persistent annoyances](#) • [Summertime](#) • [What we were saying 10 years ago \(December 2007\)](#) • [It's that time again!](#) • [BRANZ Find – keeping track of what's new](#) • [BRANZ seminars 2017/18 Keeping Water Out \(returns in February\)](#)

Acceptable Solutions

Are only one way

Acceptable Solutions to New Zealand Building Code clauses offer a range of ready-made solutions to achieving Code compliance. The building must be within the scope of the document, and the relevant parts of the Acceptable Solution must be followed in full.

However, the Building Code is a performance-based code and allows great freedom to develop alternative construction methods. Sufficient verifiable evidence must be provided to the building consent authority (BCA) to demonstrate compliance with the relevant Code performance requirements.

Unfortunately, even after having a performance-based code for 25 years, the tendency has been for the path of least resistance to be followed by many designers and/or preferred by many BCAs.

Where design and detailing employs an alternative method, there has often been an expectation on the part of the designer that the BCA will automatically know that the alternative design works. There is also the perception that BCAs are often uncomfortable with anything outside the comfort of the Acceptable Solution.

Where designs are outside the scope of an Acceptable Solution, compliance can be shown by other means such as:

- the use of an expert opinion as to the performance of what has been detailed – for example, a façade specialist
 - comparison with an Acceptable Solution or previously accepted Alternative Solution – for example, the detail follows the principles of an Acceptable Solution but differs in certain areas while still giving the required performance
 - independent assessment of a product or system in terms of Code compliance and usage (BRANZ Appraisal, CodeMark)
 - specific design by a recognised expert – for example, a chartered professional engineer
 - use of a verification method – for example, a recognised thermal modelling or calculation tool.
-

Some persistent annoyances

Time to straighten out

The introduction of our performance-based Building Code brought about a number of misunderstandings. Typical examples are:

- using the term 'building permits' rather than 'building consents', particularly the media
 - Acceptable Solutions and NZS 3604 considered by many to be the Code
 - a belief that a building can be detailed in accordance with the Code – the Code does not say how to build, it only gives us the minimum performance requirements to meet
 - the oft-repeated perception that following an Acceptable Solution is mandatory – it is not.
-

Summertime

Work not play

The weather forecasters are predicting a warmer drier summer. While this is good for all those outside activities, there are a number of implications for building work whether that is a home project or on site.

First and foremost is to keep hydrated (water is best – avoid carbonated sodas and sugary concoctions and caffeine) and to be sun safe given the high rates of melanoma in New Zealand. Wear light-coloured loose-fitting clothes, and also keep an eye on your fellow workers for signs of heat stress or dehydration.

Other trade-related activities where care is needed in hot weather:

- Don't paint or apply liquid roofing membranes in direct sunlight or during the hottest parts of the day.
 - Avoid the impact of glare when installing elements that are shiny.
 - Consider the surface temperature of materials when working on the roof, particularly with dark colours.
 - When placing concrete, consider the impact of higher temperatures, such as:
 - reduced setting times and early stiffening
 - increased rates of hardening
 - possible 28-day strength loss
 - increased tendency for plastic shrinkage
 - difficulties in placing and finishing
 - an increased risk of unplanned cold joints.
 - Ensure curing of newly laid concrete commences as soon as possible.
 - Control the rate of moisture loss from mortar and concrete masonry units or bricks. Mortar that dries too quickly can cause shrinkage cracking and reduce the mortar bond to the bricks or concrete masonry units. Hot masonry units can also accelerate the drawing of moisture from the mortar
 - Sealant application, as hotter temperatures can reduce elasticity. Sealant is also more likely to quickly skin over, which can give the appearance of a more advanced cure than is actually the case.
 - Open times or pot life for adhesives, paints and other similar products can reduce.
 - The risk of dust and potential for contamination of surfaces is greater.
-

What we were saying 10 years ago (December 2007)

Underlays – be specific

Consents should not be issued unless the wall, roof and concrete underlays (DPM) are clearly identified (by product name) in the documents supplied – drawings or specification. Builders must then install the materials specified. Where gable ends are unlined, there are specific air barrier

performance requirements (in E2/AS1) that only a limited number of flexible wall underlays comply with, so choice is limited.

A plea to builders

Please don't ring us to resolve a design issue where the owner or client is not prepared to fairly pay for the designer's time to resolve issues that arise during construction.

It's that time again!

Santa time

From all of us at BRANZ who help bring you *Guideline*, we wish you a merry Christmas and a happy (and hopefully prosperous) new year.

As we embark on 2018, we need to consider how we can:

- facilitate the training of more apprentices
 - ramp up to meet the government's proposed new builds
 - effectively deal with earthquake-prone buildings to ensure public safety
 - incorporate a 'Code-plus' approach to design and construction
 - maintain safe and healthy working environments.
-

BRANZ Find – keeping track of what's new

The updater

With summer here, the focus for a lot of building projects turns to the outdoors. Use BRANZ Find to locate useful and practical articles and resources for designing, planning and carrying out fencing, decking, retaining walls, stairs and steps, carports and other outdoor projects.

BRANZ Find has a 'top 10 resources' feature at the top of the webpage. This is a great place to locate some of the most used links about decks, stairs and so on.

You can also use keyword searching to find the information you need – be it "deck heights", "handrails" or "deck framing".

BRANZ Find links to all *Build* magazine articles, all issues of *Guideline* and *Builder's Mate*, all BRANZ Appraisals and CodeMark certificates and practical websites like Level and Maintaining my Home.



The advertisement features the BRANZ logo on the left. The main text reads: "Prevent damage from leaking **BASEMENTS, BATHROOMS & DECKS**". Below this, it states: "BRANZ how to information supported by good practice guidance, research, codes and standards." At the bottom, there is a red search bar with the text "Search keyword: BASEMENTS, BATHROOMS or DECKS". The background of the ad shows a close-up of a concrete surface with water droplets.

BRANZ seminars 2017/18 *Keeping Water Out* (returns in February)

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

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.