

# Guideline

# March 2019

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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### **Document currency**

## Check that date

A key to good design and building is ensuring that the information you are working from is up to date. That applies to construction drawings (do you have the latest drawing issue?) as well as other reference documents such as standards (NZS 3604:2011), Acceptable Solutions (latest version always available for free download) and BRANZ reference information.

Working from out-of-date or superseded information:

- may lead to multiple RFIs and delays to consent processing
- increases the risk of having non-compliant details
- may void manufacturers' warranties.

It is also prudent to record, as part of the documentation, the date of issue of all of the reference information used. This could prove valuable if a dispute arises at a later date regarding design and construction details that applied at the time of construction.

### **Fixing windows**

# Specific rules apply

Under E2/AS1 clause 9.1.10.8, windows and doors are secured in place using pairs of minimum 75 x 3.15 mm galvanised jolthead nails or 8 gauge x 65 mm stainless steel screws through reveals into surrounding framing at:

- a) Maximum 450 mm centres along sills, jambs and heads, and
- b) Maximum 150 mm from reveal ends.

For direct-fixed claddings, E2/AS1 Figure 72A specifies the vertical jamb packers (to which reveal fixings penetrate) are fixed to the trimming studs with  $60 \times 2.8 \text{ mm}$  flathead galvanised nails at 300 mm centres. The interpretation is that fixings as above are applicable for direct-fixed claddings and the jamb packers.

Install permanent packers between reveals and framing at all fixing points, except between head reveals and lintels.

# Window packers – why remove at window head? Stopping the squashing

Packers installed between the window frame/reveal and the trimmed opening at each fixing point are there to ensure that the window is correctly aligned and supported within the frame.

At the head, E2/AS1 (see Figure 73C as an example) requires the packers to be removed after the (aluminium) window is installed. This is to prevent any load from a sagging lintel being transferred via the packer to the top frame/reveal.

# How wide should a mowing strip be to be considered as a paved exterior surface? A bit of a guess really

A search for a reference to a specific 'mowing strip' width was not successful. However:

- E2/AS1 clause 7.3.2.1 (for a level entry) specifies that a surface has a minimum fall of 1:40 away from the channel for a minimum distance of 1 m Figure 75, which gives cladding clearances to ground/paving, does not give a minimum width for paving
- the Auckland Design Manual gives a dimension of 450 mm.

Logic would suggest that 300 mm is wide enough to be considered a paved surface adjacent to a building and it should slope away from the building.

An added advantage of a mowing strip (or paving) adjacent to the building is that it is likely to prevent a build-up of soil or mulch against the base of the wall. It also keeps grass (which can grow up behind the cladding), weeds and plants away from the base of the cladding, as they are more likely to attract moisture.

# **Ground clearances**

Keeping moisture at arm's length

A common call to the BRANZ helpline relates to ground clearances. Here is a summary of key clearances to ground:

Particleboard flooring	550 mm
Bottom of lightweight cladding to ground (concrete slab or suspended floor)	175 mm
Bottom of lightweight cladding to paving (concrete slab or suspended floor)	150 mm
Bottom of masonry veneer cladding to unpaved ground	150 mm
Bottom of masonry veneer cladding to permanent paving	100 mm
Bottom of lightweight cladding to waterproof deck	35 mm
Concrete slab finished floor level to paving for brick veneer	100 mm
Concrete slab finished floor level to ground for brick veneer	150 mm
Top of timber pile above finished ground level with no DPC	300 mm
Top of timber pile above finished ground level with DPC	150 mm
Top of concrete pile above finished ground level with DPC	150 mm
Top of foundation wall above finished ground	225 mm

# Change of use — existing single dwelling to multiple flats More rules apply

From MBIE Change of use, alterations and extension of life:

When a change of use occurs, the Building Code compliance requirements (under section 115 of the Building Act) are:

- a. if the change of use involves incorporating one or more household units into the building where there were none before, the council must be satisfied on reasonable grounds that the building (in its new use) will comply as nearly as is reasonably practicable with the Building Code in all respects.
- b. for all other cases, the council must be satisfied on reasonable grounds that the building (in its new use) will:
  - i. comply, as nearly as is reasonably practicable, with every Building Code provision relating to either or both of:
    - a. means of escape for fire, protection of other property, sanitary facilities, structural performance and fire-rating performance
    - b. access and facilities for people with disabilities (if this is a requirement under section 118 or the Building Act)
  - ii. and continue to comply with other Building Code provisions to at least the same extent as before.

Once the council receives advice about a change of use, they must confirm to the owner in writing whether they are satisfied that the building (in its new use) will meet the Building Code compliance requirements.

For the conversion of a single dwelling to flats BRANZ believes that section 115(a) should apply in the first instance for the change of use to comply as near as reasonably practicable with all aspects of the Building Code including:

- C *Protection from fire* for the fire performance of all inter-tenancy walls and floors, the surface finishes to escape routes, prevention of vertical fire spread, fire safety features (alarms, sprinklers and so on) and structural stability
- G6 Airborne and impact sound for all inter-tenancy walls and floors
- E3 Internal moisture to prevent water flow into adjacent tenancies within the building
- G4 *Ventilation* mechanical ventilation will likely be required for bathrooms and kitchens as they are typically internal (which will also be a requirement for rental homes under the recently introduced healthy homes standards)
- D1 *Access routes* for public areas created within the building to provide access to each individual unit including any external stairs
- D2 *Mechanical installation for access* if lifts are to be installed.

Any proposed change to the use of a building, even if no building work is involved, must be notified by the owner to the council (in writing).

# Product certification body accreditation revoked

Changes afoot

From MBIE Building Controls Update 245:

BEAL Certification Services Ltd is no longer a Product Certification Body for CodeMark New Zealand.

On 21 February 2019, JAS-ANZ issued a notice to revoke the accreditation of BEAL Certification Services Ltd (BCS) as a Product Certification Body (PCB).

BCS is no longer a PCB for CodeMark New Zealand and cannot in any capacity:

- Accept or process any applications from product manufacturers or suppliers seeking CodeMark certification of a product
- Manage any complaints about a CodeMark product certificate or the certified product
- Undertake audits of a CodeMark product certificate or CodeMarked product
- Revise, reissue or suspend any existing CodeMark product certificates.

CodeMark product certificates issued by BCS remain valid and can be accepted as evidence that the product complies with the New Zealand Building Code. Building consent authorities can rely on CodeMark certificates until such time a certificate is suspended or withdrawn.

#### **BRANZ** seminars

#### **BRANZ Junctions**

Most modern buildings have a degree of complexity that results in a wide range of junctions between materials and building elements. These junctions need to be detailed and constructed to ensure that the completed building will be Code compliant, particularly with respect to durability and external moisture.

E2/AS1 provides a limited number of junction details based on junctions between a single material such as weatherboard (internal and external corners) and elements such as aluminium windows and doors.

The aim of this seminar is to cover the key influences on junction details such as:

- Building Code clauses B2 and E2 minimum B2 requirements, what E2/AS1 covers
- application of the 4Ds to junctions cavity, cladding flashings
- impact of location sheltered/exposed, internal corner, external corner, above/below
- risks weathertightness, durability, trapped moisture, getting it wrong, drainage/drying, corrosion, wind, complexity/buildability, compatibility
- dealing with movement thermal, moisture, building settlement, seismic
- protection to junctions flashings (shapes, back upstand/cover, laps), cover boards, sealant
- dealing with different thicknesses/profiles thin versus thick or vice versa, flat versus corrugate
- maintenance issues, future access
- fixing locations
- aesthetic the transition needs to look good
- pressure moderation across junctions.

The seminar will then take attendees through a wide range of actual junction details backed by 3D drawings of those details such as:

- vertical wall cladding material junctions within the wall area and at corners such as profiled metal/weatherboard, weatherboard/brick veneer
- horizontal wall cladding material junctions such as weatherboard over brick veneer
- wall cladding over roofs (horizontal/raked aprons)
- wall cladding below roof (flush eaves, wide eaves)
- parapets, valleys, ridges, gables and hips
- rainwater heads and internal gutters.

# Presenters

Greg Burn – NZCD (Arch), Dip Bus (Marketing) – Structure Ltd Des Molloy – Building Consultant

### Remaining dates and venues

Thu 7 Mar Hokitika Order of St John Hokitika Fri 8 Mar Nelson Rutherford Hotel Nelson Auckland – Central Wed 13 Mar Crowne Plaza Auckland Upper Hutt Thu 14 Mar Silverstream Retreat Fri 15 Mar Napier Mission Estate Wed 20 Mar Timaru Comfort Hotel Benvenue Thu 21 Mar Christchurch Addington Events Centre Fri 22 Mar Blenheim Scenic Hotel Marlborough

Wed 27 Mar Auckland – North Shore QBE Stadium

Thu 28 Mar New Plymouth Fri 29 Mar Wellington

The Devon Hotel InterContinental Wellington

Seminars will start at 1 pm with a 4 pm finish.

Online registration is available now.

