



Guideline

March/April 2020

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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COVID-19 and construction updates

What can be done on building sites during the lockdown?

New Zealand is currently at Alert Level 4.

Builders cannot access building sites to prevent deterioration of building work in progress or materials stored on site. You cannot go on site and fix underlay or wrap to keep materials dry. MBIE is currently working on advice around exposure and exposure limits for building materials and elements.

Security, including security of building sites, is defined as an essential service. This means that builders can secure a site and secure materials and equipment. New working practices must be adhered to and only the minimum required can be done.

Tomorrow (Thursday 16 April) the Government will provide more guidance on what alert level 3 will look like. The Government has indicated that the three basic starting points for determining whether you can undertake safe economic activity are:

- whether or not you can work with social distancing
- can we contact trace all of the customers or the employees that you work with, and
- do you or will you need PPE.

Specific guidance for working safely on sites is being developed by construction sector leaders to help a consistent approach to be adopted.

Information

You can find MBIE's guidance online [here](#).

You can also find construction guidance and updates from these organisations:

- [CHASNZ \(Construction Health and Safety NZ\)](#)
- [Construction Sector Accord](#)
- [Master Builders Association](#)

- [New Zealand Institute of Architects](#)
- [Property Council New Zealand](#)

Need to talk?

- MATES in Construction is a mental health charity specifically designed for people working in the building and construction industry.
- The service support all workers and subcontractors at our building sites.
- People can connect with MATES in Construction, including a 24 hour support line (0800 111 315), or by free texting 5353.
- The charity has also created a free, online 'Lunchtime' Room to support workers throughout the lockdown. People can find out more at mates.net.nz. - Source Kāinga Ora

BRANZ online education now free of charge

Things are tough right now for the building and construction sector. BRANZ is working with others on ways to help businesses and workers in the sector. In the meantime, we're providing free access to our [eLearning modules](#) or [previous seminars](#) during the lockdown. Access these by using the promo code BRANZ.

BRANZ e-learning modules and seminars build important knowledge and skills. Even if your people can't get on site or do their usual work, BRANZ e-learning resources can help your people to keep training and growing professionally.

While BRANZ staff may now be working at home, you can still contact us, including through the helpline – 0800 80 80 85.

Government introduces emergency procurement measures

Building and Construction Minister Jenny Salesa has provided new contract management guidance to all government ministers and agency chief executives which recognises the move to Alert Level 4 lockdown as a variation on a standard contract. It means that what is happening is recognised as outside of the control of the building firms.

Construction companies with government contracts can recover time and costs resulting from the lockdown. Claims will be treated on a case-by-case basis. The lifeline is aimed at keeping businesses afloat and construction workers in jobs.

Earthquake-prone buildings and NBS

What does "% of new building standard" mean?

In recent weeks we have seen quite a few mainstream news media get completely tangled up over the term "% new building standard (NBS)". Here's an explanation.

An earthquake-prone building is one that is assessed at less than 34%NBS. Contrary to popular belief, this is not a measure of New Zealand Building Code compliance. If a building rates 100%NBS, it does not necessarily mean that it complies with all the current requirements of the Building Code and standards.

Engineering New Zealand says: “A %NBS rating indicates the percentage of the New Building Standard that a building achieves in terms of protecting life in earthquakes ... A %NBS rating says nothing about likely damage to the building ... If a building has a high %NBS rating, it isn't necessarily less likely to be damaged during an earthquake than a building with a low %NBS rating.”

A rating between 20–33% NBS indicates a risk to occupants of approximately 10–25 times that of an equivalent new building that just meets the minimum life safety requirements in the New Zealand Building Code. A rating less than 20% NBS indicates a risk to occupants of more than 25 times that of an equivalent new building that just meets the minimum life safety requirements in the New Zealand Building Code.

Underslab waterproofing

Can waterproofing agents be used in place of membranes?

The helpline has had several enquiries about waterproofing concrete floor slabs. The callers have asked whether concrete additives or waterproofing agents now available can be used instead of a damp-proof membrane (DPM) under the slab.

The answer is no. In NZS 3604:2011 *Timber-framed buildings*, clause 7.5.4.1 says “Every slab-on-ground floor shall incorporate a continuous DPM between the ground and the floor surface”. The standard gives the option of putting the DPM under the concrete ground slab on a surface suitable to receive the DPM or over the ground slab and protected by a concrete topping slab not less than 50 mm thick.

Tiny house Court finding

Tiny house decision has big implications

In a significant decision of 20 February 2020, the Christchurch District Court found that a tiny house on wheels that is registered and warranted as a vehicle is not a building. This is a reversal of an earlier opinion of the Hurunui District Council that the tiny home is a building and a subsequent MBIE determination that supported the council view.

This has been a contentious issue for many years and the topic of at least four MBIE determinations (2016/011, 2016/019, 2017/058 and 2018/001). In each determination the structure at issue was found to be a building.

Renovation of a direct-fixed timber weatherboard house

Can the new work be direct-fixed too?

There are many older direct-fixed timber weatherboard homes in New Zealand. When it comes to extending or renovating them, however, current requirements (in Table 3 of Acceptable Solution E2/AS1) call for cavity construction in some situations. This will create a detailing problem if the intention is for the new cladding to match and align with the existing direct-fixed cladding.

If a building consent is sought using direct-fixed cladding for an addition or alteration outside the scope of E2/AS1, an alternative method must be used to demonstrate compliance with E2.3.2 (“Exterior walls must prevent penetration of water...”). Possible compliance paths could include:

- comparison with in-service history
- comparison with a previously accepted Alternative Solution.

With in-service history, if an existing window on the house has the same detailing as planned, receives similar exposure and has met its durability requirement, this is ideal evidence to support a renovation application.

With a previously accepted Alternative Solution, it may be that another house close to the one in question had a building consent issued for direct fixing of cladding. The fact that no cavity was accepted by the same BCA on a nearby property could be used to support the argument for consent in this case. The houses would need to be very similar in location and exposure, materials and construction used and age.

You can find guidance around renovations on the BRANZ website www.renovate.org.nz.

Is waterproofing required behind concrete landscaping walls?

Best practice is to do it

Concrete walls used to construct a building must be waterproofed to prevent them absorbing or transmitting moisture in quantities that would cause undue dampness and/or damage to building elements.

Where concrete walls are used for landscaping or retaining, waterproofing behind the wall is generally not required. It is still good practice to include it to protect the steel reinforcing of the wall and thus its structural integrity.

Good piped drainage is crucial, especially for retaining walls, to drain water away from behind a wall.

Unsafe scaffolding has high costs

Doing it right has benefits

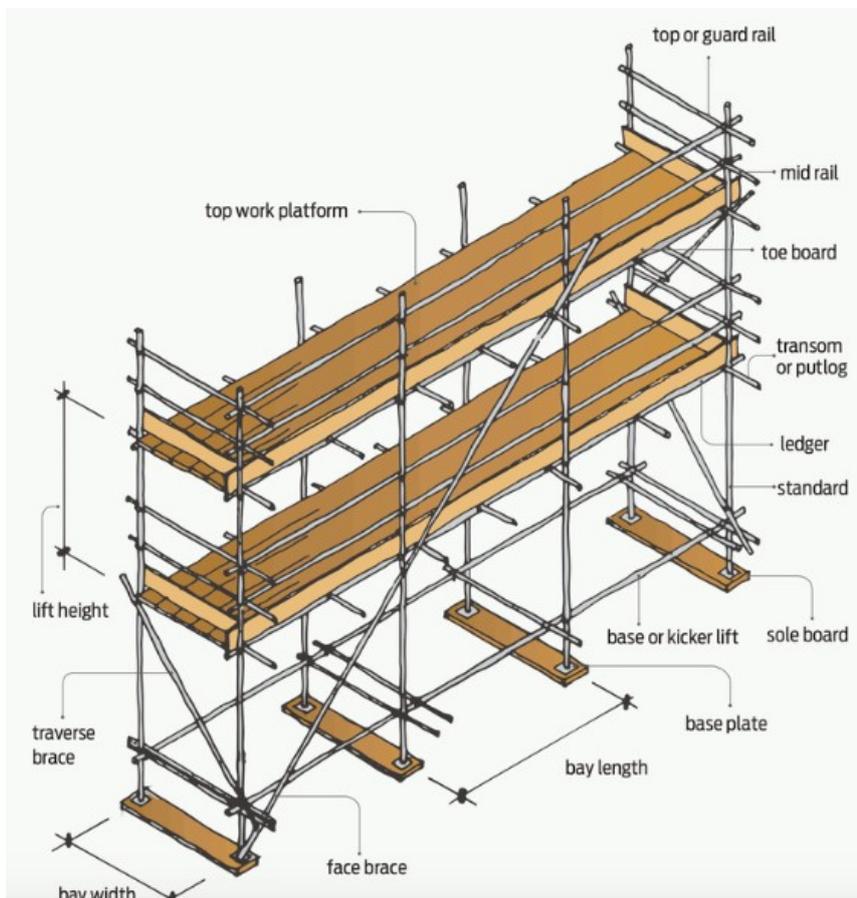
In recent news, Dunedin building and scaffolding companies paid a \$230,000 settlement after faulty scaffolding led to a person being injured. This follows a school being fined \$100,000 late last year for the same thing.

Among the requirements for free-standing scaffolds are that they must:

- be erected level and plumb
- be on solid footings or supports
- be braced
- be tied to the structure if possible
- have guardrails and toe boards
- have the planks or decks secured to the scaffold structure.

Anyone erecting, altering, repairing or dismantling a scaffold with any part 5 m or more above the ground must hold the appropriate certificate of competence or be directly supervised by someone who does. All free-standing scaffolds where a person or object could fall more than 5 metres must be notified to WorkSafe.

For more details, see the WorkSafe resource [Scaffolding in New Zealand](#).



(Drawing: Build 145 December 2014)

BRANZ-commissioned research shows the use of scaffolding on single-storey builds has made sites safer. While the cost of scaffolding single-storey new builds is significant, the cost is partly offset by improved productivity. Scaffolding can improve inspection, enable faster access to heights and improve the handling of materials.

What is “like for like”?

It is about performance

As a general rule, replacing any element in a building during maintenance and repair does not require building consent provided that the replacement is in the same position and a comparable element is used.

The phrase “like for like” is very commonly used in the industry to describe comparable elements – we used it ourselves in the last *Guideline*. A reader has pointed out that this term doesn’t appear in the Building Act or the Building Code and suggested we explain it further. Here are a few points to bear in mind.

- You don’t have to use exactly the same type of element in a replacement – you can use a “comparable” element in the same position. For example, if you are replacing a sheet of 1970s fibre-cement wall cladding made with asbestos fibres, you would obviously use fibre-cement sheet currently available that does not contain asbestos.
- Comparability is about performance. The comparable materials or elements used for the replacement must give at least the same or better performance as the originals.
- All building work, whether it requires a building consent or not, must comply with the Building Code. In some cases, replacing “like with like” would not actually comply with the Building Code. For example, an owner of an old villa could not replace the original totara

pile foundations with identical new totara piles. In this case, the Building Code now requires earthquake and wind loadings to be considered and a building consent must be obtained.

Recent news

Tighter standards for solid-fuel burners proposed

The Ministry for the Environment is planning amendments to the [National Environmental Standards on Air Quality](#) to reduce emissions for new solid-fuel burners from 1.5 g/kg to no more than 1.0 g/kg. It would also include all types of new domestic solid-fuel burners under the wood burner regulations for emissions limits and thermal efficiency. This would include coal burners, multi-fuel burners, pellet burners, open fires, cookers and water boilers. Submissions are open until 24 April 2020.

Three earth building standards updated

In February, [Standards New Zealand](#) published updated versions of
NZS 4297:2020 *Engineering design of earth buildings*
NZS 4298:2020 *Materials and workmanship for earth buildings*
NZS 4299:2020 *Earth building not requiring specific design*.

Extreme rainfall costs forecast to jump

Work published by [Motu Economic and Public Policy Research](#) in January indicates that more extreme weather events brought by climate change are likely to increase costs for the Earthquake Commission (EQC) by 9–25%. EQC paid out \$450 million for 15,196 weather-related claims over 2000–2017, approximately one-third being for damage to buildings.

Construction Sector Transformation Plan launched

[The 3-year plan](#) is one of the elements of the Construction Sector Accord. It includes a review of the building consenting system, creating a cross-sector leadership group and information and education programmes to improve business and procurement performance and health and safety throughout the sector.
