



Building compliance confidence

Buildings stand on the foundations of the New Zealand Building Code. This primer looks at the Building Code and the pyramid that underlies it.

At a glance

- Building Act 2004 – is the high-level regulatory framework.
- Building Code – provides more specific objectives for building performance.
- Acceptable Solutions, Verification Methods and Alternative Solutions – are practical steps to demonstrate Code compliance.
- Proving compliance is critical.

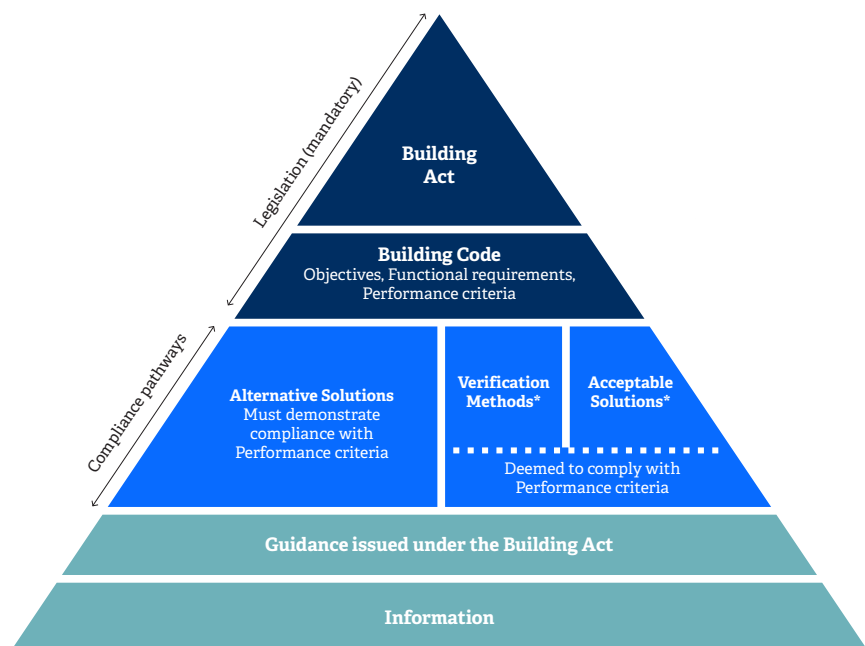
We interact with buildings every single day. We work in them, learn in them, eat and sleep and watch Netflix in them. And while we are working, learning and relaxing, we take it for granted that the building we are in will be up to the task it is designed for.

But how do we know that it is? Who chooses what standard to hold each building to, and what is the process for making sure our buildings are up to scratch?

What are we complying with?

Anyone working in the building industry will be familiar with the concept of the New Zealand Building Code. However, the Building Code is the second level of the building regulatory framework. The top level is the Building Act 2004.

This Act of Parliament sets out the regulations that every building must satisfy. It works alongside other legislation that governs our built environment, like council bylaws. As the primary legislation, the Building Act is very high level, setting out generic rules for all buildings.



* may include cited standards and information

Figure 1: Compliance pyramid developed by MBIE.

The Building Code

Below the Building Act sits the Building Code. The Building Code is more specific, setting out objectives, functional and performance requirements. For example, section B2.1 sets out the objectives for the durability of a building, 'The objective of this provision is to ensure that a building will throughout its specified life continue to satisfy the other objectives of this Code.'

The Building Code can also assign very specific requirements, for example, section B2.3.1 sets out the 5-year, 15-year and 50-year requirements for building elements. The Building Code is split into eight lettered sections, or clauses, ranging from A *General provisions* to H *Energy efficiency* – plus *Specific buildings*, a section with no letter for backcountry huts!

Getting more practical

The Building Act is written in very specific legal and technical language and is time consuming to fully understand – and let's be honest, really dry. Unless you are the Minister of Housing or a compliance lawyer, chances are you have not read this act of parliament. Additionally, the Building Code does not specify how you make a building comply or how to prove it. That said, designers should note the 'limits on application' listed under each clause. These identify specific areas of construction where each clause does not apply - which are sometimes very relevant.

This is where the third layer of the pyramid comes in – Acceptable Solutions, Verification Methods and Alternative Solutions. These documents are compliance pathways that set out the practical steps to demonstrating a building conforms to the Building Code and therefore the Building Act. It is the practicality of these documents that make them the go-to reference guides for people trying to demonstrate compliance.

Why demonstrate compliance?

First, who do you need to demonstrate compliance to? The most common example is a building consent authority (BCA) – usually the local council. BCAs are responsible for signing consent for all new buildings and some renovations carried out on existing buildings. The person submitting the consent is responsible for demonstrating compliance

with the Building Code to the relevant BCA.

A builder or designer might also find they need to prove compliance to a customer. That could be another person or company who may for example want proof the concrete slab you just laid is up to scratch before the frame is built on top of it. Alternatively, it could be a clued-up client who wants to know their new dream home isn't going to fall apart around them during the next minor quake.

Proving compliance is also a crucial part of obtaining a BRANZ Appraisal, CodeMark or other verification certificates.

Once you have worked out you need to demonstrate compliance, which compliance pathway is for you?

Acceptable Solutions

In many ways, Acceptable Solutions are the simplest way to demonstrate compliance. These documents set out specific rules so that, if a system follows the letter of the law, it is deemed to comply without needing any more proof.

For example, Table 1A of B2/AS1 states that radiata pine or Douglas fir that is H1.2 treated as per NZS 3640:2003 *Chemical preservation of round and sawn timber* is suitable for use as a subfloor brace, so if a building has subfloor bracing made from H1.2 treated radiata pine, it complies with the Building Code. However, somebody will have to take responsibility for proving the subfloor timbers are H1.2 treated as per NZS 3640:2003 – a task sometimes easier said than done.

Verification Methods

Verification Methods are useful for projects and materials that do not comply with an Acceptable Solution. These are prescribed tests or assessments that can be carried out to demonstrate compliance with the Building Code. These tests or assessments must be carried out exactly as described in the relevant Verification Method.

The steps may be laid out in the Verification Method directly or it might reference a specific standard. For example, E2/VM2 references standard test BRANZ EM7. This is a BRANZ-created evaluation method for testing the weathertightness of cladding systems. If a system passes an EM7 test, it is deemed to comply with E2/VM2 and therefore clause E2 of the Building Code.

Alternative Solutions

The Building Code is performance-based – it prescribes how buildings must perform. This leaves plenty of room for variety – any design that can be proven to perform as the Building Code prescribes is compliant. This is also easier said than done, but Alternative Solutions are here to help.

An Alternative Solution is any system or component of a building that does not comply with an Acceptable Solution or Verification Method. These must demonstrate compliance through a different method. For minor variations, compliance could be demonstrated through comparing your design to the Acceptable Solution or Verification Method, noting and explaining why there are differences.

If your design has been used before in Aotearoa New Zealand or overseas, compliance could be demonstrated through a mechanism known as history of use. Sometimes, compliance can be demonstrated with international standards.

These are just a handful of examples. There is an almost limitless number of ways of demonstrating compliance via an Alternative Solution. The key steps in the process are identifying the relevant clauses of the Building Code, building a body of evidence and presenting your evidence to the relevant authority by proposing an alternative method. A consenting authority will then determine if the proposed alternative method complies with the Building Code.

Compliance matters

While it may often seem like a way to make industry complete more paperwork, the Building Act 2004 and the Building Code exist to ensure we all live, work and play in safe, healthy, functional buildings. There are a myriad of ways to demonstrate compliance with the Building Code, and often it's not as complicated as it first appears. ◀

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