



ALTERNATIVE SOLUTIONS

It is virtually impossible to build using only the Acceptable Solutions and Verification Methods given by the Department of Building and Housing in its Compliance Documents. So, what is an Alternative Solution and how do the building consent authorities assess and consent them?

By Des Molloy, former BRANZ Presenter and Technical Writer

An Alternative Solution is a building design, of all or part of a building, that demonstrates compliance with the Building Code to the satisfaction of the Building Consent Authority (BCA). It can include a material, component or construction method that differs completely or partially from those described in the Compliance Documents. It can be a minor variation from a Compliance Document, or a radically different design and construction approach.

The consent process

Ideally, discussion early in the design process will clarify expectations. The designer needs to know what information and evidence the BCA will expect, and the BCA needs a clear understanding of what the applicant is trying to achieve. The building owner (or the owner's agent, such as an architect, engineer or builder) needs to provide sufficient evidence that the proposal will meet the provisions of the Building Code. The clearer this is made on the consent application, the easier the path to success will be.

The BCA official who is assessing the application will have an established procedure that he or she follows. They must be satisfied on reasonable grounds that the alternative being proposed meets the performance requirements of the Building Code. To do this, they will examine the evidence provided and compare against the 'knowns' that do meet those requirements.

Guidance on applying for a consent

If putting forward an Alternative Solution proposal the building owner, or the designer on their behalf, will need to substantiate

why they believe the proposal complies with the Building Code. This can be done by a number of methods including using one or more of the following tools.

COMPARISON WITH A COMPLIANCE DOCUMENT

Compliance Documents are one set of instructions that lead to compliance. It is possible to accommodate deviation from some of the steps (for example, different materials or detailing) provided the deviation is compensated for or otherwise justified. In many cases, Compliance Documents provide an excellent guidance mechanism for assessing the robustness of an Alternative Solution.

COMPARISON WITH A PRODUCT ACCEPTED BY A BCA

For example, some building methods not covered by Compliance Documents may have been previously accepted by a BCA on a comparable building.

COMPARISON WITH A DETERMINATION

Is there a determination issued by the Department on a similar proposal? Although determinations are case-specific and therefore have a very limited application, they do provide sound guidance on interpretation of the Building Act and Building Code at a particular point in time.

TRADE LITERATURE

Is it a proprietary product? The manufacturer's literature may contain technical data that supports the proposal.

APPRAISAL

Is there a current Appraisal Certificate that describes how compliance with the Building Code is achieved?

IN-SERVICE HISTORY

Is there proof that arises from in-service history? For example, has the proposed material been used in a similar application on a similar site? Overseas evidence can be used, but it is necessary to be mindful of New Zealand conditions, such as seismic activity, ultra violet light, and exposure to salt-laden winds and wind-driven rain.

ASSESSMENT OF ACTUAL CONDITIONS ON SITE

Is there proof that arises from local environmental conditions, for example, a very sheltered site that is supported by meteorological evidence?

EXPERT EVIDENCE

Is there collaborative expert support? This could be peer review of the proposed solution or opinions obtained from credible organisations.

Granting consent

In all cases the BCA will need to consider the arguments put forward by the building owner. If the BCA agrees that it has reasonable grounds on which to be satisfied that building in accordance with the Alternative Solution proposal will result in compliance with the Building Code then it will grant the building consent.

This article is based on 'Submitting an Alternative Solution' contained in the BIA News No. 106, September 2000. ◀