Building Confidence Ltd – initial submission on Market study into residential building supplies

Background to Building Confidence Ltd

Building Confidence provides strategic advice on Building Act matters including product compliance. The Managing Director of Building Confidence is John Gardiner. Prior to forming Building Confidence, John was Manager Determinations and Assurance at MBIE. At MBIE he had policy and operational responsibilities for building product issues including the development the concept of product assurance. The objective of that initative was to reduce the barriers to the entry of new and innovative products.

Introduction

This submission is limited to building regulatory aspects of the enquiry and no discussion of other matters raised in the Discussion Paper does not indicate support for, or criticism of, the other matters. This submission is brief and is presented in dot point format. I am happy to participate in further discussions on the points raised in this submission.

Terminology

This submission uses the term *Building Code* (the "Code") to describe exactly that, the Building Code which is a Regulation. The term Building Code System ("Code System") is used to describe collectively the Building Code (as above) and the means of compliance (acceptable solutions and verification methods), Standards (both NZ, Australian and International) which are cited in acceptable solutions and verification methods plus any guidance issued by MBIE. The term Building Act (the "Act") is used to cover the "process and procedural" aspects of the Building Act such as the consent process, building consent authority accreditation etc.

Fundamental premise – most building products will work in New Zealand

There is a myth that NZ is different. Yes, we have earthquakes but so does California. Yes, we can have areas of high wind but I would prefer to be in Newlands (Wellington) than Far North Queensland in a tropical cyclone. Similarly, our UV loadings are not too dissimilar from some other environments. While our particular mix of environmental conditions is unique, most building products will work in New Zealand given adequate consideration by design professionals to the scope of use and consideration of different construction methods. This is particularly true if they have been developed and manufactured for building products markets which are generally highly regulated and similar building codes and construction methods (e.g US, Canada, Europe and UK). However, many of these products face barriers as set out below that deny NZ easy access to the world building products market.

Building Regulatory Regime – Performance based in theory but innovation stymied in practice

The NZ Building Code is performance based which has a policy objective, like all performance-based regimes, to facilitate and encourage innovation. However, barriers both perceived and real it in the implementation of the Code System has led to less than optimum outcomes for the introduction of new products to the NZ market place.

There are two main regulatory reasons for this; some issues sit within the Code System and its application and some through the compliance processes as set out in the Act. These two issues interplay with each other but this submission deals with them as separate issues.

The Code System – needs improvement with a product lens

- The Code is, in essence, a performance standard for building work and not products. Regulatory requirements for building products and methods to "comply with the Code" can be problematic and often needs "creative" interpretation to develop a consistent and coherent application for different product types. There are some sector initiatives to develop an agreed set of "rules" – MBIE is generally oblivious to the issue and its need to support these initiatives. The forthcoming changes to the Building Act requiring mandatory product information disclosure will have widespread implementation issues unless this is sorted out.

- Internationally there has been a move to the quantification of the performance requirements (e.g. the use of objective measures to quantify performance requirements rather than qualitative terms such as "adequate" and "sufficient"). The development of quantification of performance is stalled in New Zealand and while quantification is not necessarily easy NZ needs to continue researching and exploring quantification opportunities particularly with a "product lens".

- In the absence of quantification of performance, product assessment generally requires looking at the performance attributes of products as set out in Acceptable Solutions and their cited Standards (generally New Zealand or Australian). Many of these Standards reflect a particular NZ perspective (e.g. established practice – which is not necessary best practice). An example is NZS 2995 which is the Standard for building underlays. It outlines particular attributes which do not match up with the attributes set out in equivalent international standards even though fundamentally the performance requirements are the same. This means that many suppliers of building underlays (outside NZS 2295) (which makes them "alternative[1]" solutions) have to establish compliance through Codemark or an Appraisal adding cost and

[1] The term "alternative" solution is generally used to describe a product or design that does not have its compliance established by compliance with an acceptable solution or verification method. Compliance is then established directly from the compliance with the performance requirements of the Code or using the criteria set out in the acceptable solutions or verification methods as an evaluative tool. **Note:** Most products are alternative solutions to at least one Code clause – a point which is not widely appreciated

other barriers – the solution is to cite a broader range of Standards in the Code system.

- There has considerable growth in the range and type of products available in the NZ market (innovation). This growth has outstripped the rate at which MBIE has created compliance pathways for these products. Examples are Structural Insulated Panels (SIPs) and Autoclaved Aerated Concrete (AAC). These systems and products are widely used overseas, yet providers of these products generally must go down the Codemark or Appraisal path (at some cost) whereas if there was a cited Standards or some other "approved" compliance pathway for these, compliance costs would be reduced.

- More by accident than design, the Code System has created "commodity" products. For example, for stick timber it sets up a regime of performance criteria – grading for structural performance and durability. The same applies for steel mesh. This means that in building consents all that needs need to be specified is for example ("SG 8, H1.2") rather than the specific manufacturer of that timber. The regulatory system is neutral is to the source of the timber as long it meets the criteria. This gives a builder the choice of their source of timber. Why can't a similar system be created for plasterboard for instance?

- Building product compliance requires scoping statements about where the product compliance claims are valid (e.g wind and seismic zones). However these useful tools are defined in cited Standards. This creates some confusion among those product suppliers with products whose performance is not as per those Standards (so called alternative solutions). While not as a significant issue is some of these stated above putting these zoning systems into the Building Code itself would help reduce some confusion.

Codemark – good can be expensive and time lengthy

- One of the means by which compliance can be proved and accepted as a means of compliance is Product Certification (aka Codemark). Broadly Codemark is a good scheme but can be made more cost effective if the Product Certification Regulations (and associated Scheme Rules) were more focused on where the "risk" really lies. The rules require factory and on-site installation audits (with variable frequencies) for all products, some overseas factories are already "audited to death" and installation of some common products (e.g. an internal lining) is simple and within the competence of most builders) – so why is an installation audit needed for this?

- Some criticism of Codemark is also directed to the time it takes to have an application processed – that is a fair comment in some cases but many applications are poorly prepared (see comment on the limited ecosystem below), the complexity of the Code (also below) plus the need to sequence audits (comments as above) all contribute to the cost and time taken to achieve CodeMark certification. Regulations and Scheme rules need to be subject to a risk/value/cost lens to only

require audits only when the non-compliance risk is truly high and allowing a certification body to utilize audits conducted by other competent organisations.

Product compliance support eco-system - limited

- The product compliance support capacity (consultants) in NZ is very limited with only approximately three companies providing services. Although are others who provide specialist advice (e.g structural engineers for structural products) this general product compliance support capacity is nearing retirement age and there is no programme to provide a succession pathway or grow this capacity. MBIE, with BRANZ support, started a programme in 2010 but this was put on hold due to resources being directed to Canterbury Earthquakes.

- Similarly, there is a limited number of organisations which can test (if needed) products. Some are simply incompetent, others are expensive and take conservative positions re risk. Testing capacity that exists in Universities and Polytechnics should be encouraged to enter this market

- BCA accreditation while having some benefits has also supported a pre-existing culture of risk averse behavior among building officials. This combined with the legacy of "leaky homes", an overstated assessment of negligence risk combined with a lack of focus on providing training in dealing with so called "alternative solutions" has created a significant barrier for new products. While some of the Code systems change will reduce this (schemes like CodeMark take some of the compliance decisions away from them and are extremely useful for very complex systems and products) there needs to be an active education programme for building officials to assist them in assessing true non-compliance risk and the nature of the "reasonable grounds"[2] test.

- The Building Act 2004 changed the tests for granting code compliance certificate to compliance with the consent rather the code. The change to the test places an administrative burden on any post consent product or design changes. While MBIE has provided some guidance on this (as well as the change to the Act to create the concept of minor variations) product substitution[3] post consent is problematic and can lead to other issues such as the interface with restricted building work regime. Delays to construction when a product must be substituted due to unvailablity of the consented product because of supply chain issues are expensive, and time consuming administratively. There needs to a fundamental review of barriers that prevent easy substitution of products that do the same job.

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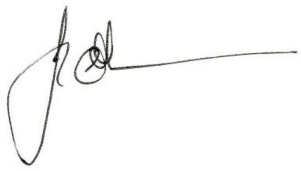
[2] The test for most decisions made under the Act is "reasonable grounds" – many building officials apply a test greater than this which imposes a considerable cost burden on the community through forgone innovation in designs and methods

[3] There are some who equate product substitution with the use of "inferior" products – this can be an outcome but need not be and in general most substitutions meet the necessary compliance tests

Overall Conclusion

- The Building regulatory system has a major (but not widely recognized) impact on the building products market efficiency and is currently failing
- A more competitive market will, amongst other initiatives, require a fundamental review of the application of the NZ Code and Act to building products including:
    - Reviewing the Building Code to improve its articulation of the required performance of building products
    - Creating more compliance pathways for common building products that currently have none within the Code system using more overseas standards if necessary
    - A review of the building code system to ensure that it creates, where practicable, a commodity market for families of building products as it has done for (without recognizing it) for common building products such as "stick" timber and steel mesh
    - A programme of work to improve the quality of compliance applications and associated decision making by building officials
    - A programme of work to develop an enduring and effective eco-system of building product compliance support (consultants and testing)
    - Changing the tests under the Act to allow (with suitable controls) for the substitution of products with products of equivalent performance.

John Gardiner



For Building Confidence Ltd

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