



BUILDING CODE TECHNICAL RISK ADVISORY GROUP (BCTRAG)

29 AUGUST 2019 MEETING

MINUTES

FINAL

BCTRAG members	<u>Attendee</u>	<u>Representing</u>	<u>Attendee</u>	<u>Representing</u>
	Bryce Keogh	BCA	Anna Kaiser	GNS Science
	Neil McLeod	BCA	Dan McGuinness	NZ Construction Industry Council
	Ian McCauley	BCA	Ross Roberts	NZ Geotechnical Society
	Jayson Ellis	Building Officials Institute NZ	Bruce Curtain	NZ Institute of Architects
	Lynda Amitrano	BRANZ	David Whittaker	NZ Society for Earthquake Engineering
	Eleanor Laban	Engineering NZ	Michael James	Society for Fire Protection Engineering
	Tania Williams	Engineering NZ	Paul Campbell	Structural Engineering Society
	Simon Davis	Fire & Emergency NZ	Mike Kerr	MBIE (Chair)
	Dave Robson	MBIE	Jenni Tipler	MBIE
	Helen McGregor	MBIE	Jonna Morris	MBIE
	Richard London	MBIE	Saskia Holditch	MBIE - (partial attendance)
Apologies	None			

FOLLOW-UP FROM THE LAST MEETING

After welcoming the group the Chair provided an update highlighting:

- The purpose of the session:
 - Advice from the industry on potential risks that BPE can address through the code.
 - MBIE forum to seek feedback on areas of work programmes and risks.
 - Role of the Membership to be advocates back to their membership.
- The value of the BCTRAG advice within BPE and the broader BSP group.
- The need to link the risks we are discussing back to the building code
- The trends in risks discussed over the BCTRAG meetings to date have highlighted:
 - Are we setting the bar high enough with the Building Code's Minimum Performance settings?
 - Construction practices and quality are an emerging item

The Chair agreed between meetings to provide a snapshot of items that may need actions between meetings from MBIE or members.



BUSINESS UPDATE

Dave Robson presented a business update of notable achievements since the last meeting including:

- Consultation is underway for the for 3rd Bi-annual Building Code update. This is the first update with digital advertising being trailed with reported success.
- Continued technical support and assistance in drafting decision documents for the BSLRP initiative for which the Minister needs to make a high number of policy decisions.
- Planning the Higher Density Eight work programme and preparing for review with the group today and subsequently with the Building Advisory Panel and the Minister.
- Engaging with ENZ and BRANZ regarding the provision of technical and research support for the ongoing and planned programme of work.
- Working with the Ministry of Housing and Urban Development regarding their Housing programme to outline the role of the Building Code, minimum standards and technical support we can offer.
- The Minister launched free access to some NZ standards. NZS3604 has been the most downloaded standard to date. Over 50,000 downloads in the first month.
- Commenced planning to trial a cloud based application supporting BCA dialogue.

The focus leading up to the next meeting will be finalising our Higher Density housing work plan to normalise 3-6 story buildings and continuing to support the BSLRP programme of work.

HIGHER DENSITY HOUSING WORK PROGRAMME

Dave Robson presented the background to the Higher Density Housing work programme.

As part of the 2018 More Efficient Consenting (MEC) project there was activity to identify gaps and potential actions MBIE could take to provide more clarity to make it easier for Code Compliance for density (3-6 stories) housing.

- Senior Advisors held a number of nationwide on-site meetings/workshops with selected BCA's, Architecture firms, Developers, Off-site manufacturers etc. to understand first hand their pain points with MDH design and consenting.
- A subsequent project commenced in July 2018 when members of Building System Performance team held workshops with Ockham Residential and the Auckland Council to develop a list of issues, opportunities and potential changes to the Building Code to support MDH.
- The Higher Density project team then assessed all feedback received to identify the issues, compliance gaps, or opportunities and note potential actions MBIE could take to address these. The project team identified 65 potential action items across all Code clauses, and grouped them by code clause.



This led to the identification of the eight code clauses that are anticipated to deliver the biggest benefit, and provide the focus to enhance pathways for Building Code compliance for density buildings.

Each code clause was assigned to the Code Clause expert within the BPE team who was responsible for drafting a multi-year work programme outlining potential changes.

The programme was subsequently summarised into Code Clause Priority lists that the BCTRAG discussed and provided advice under embargo.

Overall feedback from the BCTRAG was supportive of the proposed HD8 changes and the group understand these changes are specifically to support medium density housing. Specific comments included:

- Support for the plan to expand NZS3604 above 2.5 stories but an overall comment that MBIE need to consider the risk impact this would have on associated code clauses.
- An overall need to rethink performance minimums for natural light in density housing.
- Support for the focus on internal ventilation improvements
- Highlighting working with industry on proposed acoustic changes to ensure the skills, products and designs are available to support the programme, and that MBIE would also need to supply compliance pathways.

BSP CLIMATE CHANGE

This project aims to consider how the built environment can contribute to the Government's climate change goals, and what role the building regulatory system might play as one of a broad range of actions to affect how we build in NZ.

BSP is engaging with relevant government agencies to coordinate and feed into cross-agency climate change work programme, a key focus is on understanding the progress with the Zero Carbon Bill. Within the BSP project, work is underway to analyse available evidence on how the building regulatory system could be used to support Government's climate change objectives. Initial thinking is focussing on what options there might be for the building regulatory system to mitigate and adapt to climate change in three areas:

1. what can be done within the current Building Act and Building Code
2. options that covers actions that may be outside of the Building Act
3. options across the broader built environment that may involve other agency response or input

The members also commented;

- As part of the programme, it would be useful to consider the current system resolving discrepancies and interaction with other regulatory systems. Specific reference was made to the Resource Management Act with the example that at present a building can currently obtain a building consent as it only requires 50 year building life, but with the same paperwork will not receive a resource consent as that requires a 100 year life.



- The programme should ensure the research considers the cost and benefits of changes in the short and long term before actions are determined.
- They are seeing more new builds targeting the Home star and 5-star programmes.

RISK SUBMISSION DISCUSSIONS

The Chair led a discussion regarding the effectiveness of the revisions made to the risk submission and prioritisation process since the last meeting including:

- Amending the risk submission forms to include cost benefit analysis
- Pre-communicating all risk submission forms and the permanent members selecting the 4 risks to discuss.
- The Permanent Member submitting the risks undertaking a short brief on the risk to focus the discussion.

The Permanent Members concluded that further enhancements could be made by:

- The members prioritising all risks submitted for discussion
- Extending the timeline for the members to read the final risks
- MBIE submitting risks for potential discussion as MBIE have wider view of work being done and may be able to identify more system wide or strategic risks
- Where feasible including with submissions evidence and suggested mitigation measures.

The group also suggested considering extending the duration of the meeting to enable the discussion of additional risks and the potential for a forum outside email for collaboration between meetings including working together to gather evidence, discuss implications.

RISK DISCUSSION

Four risks were discussed. Of the risks identified none can be solved solely by changing the building code itself, as they all have a broader focus than the Performance P and require input from all of the 4 P's system, as well as between MBIE and industry groups.

Risk Identified	Conversation	Insights for MBIE
Passive Fire Protection	<ul style="list-style-type: none"> • The group identified that strategically this risk arises due to systemic breakdowns in the Quality Assurance and Compliance process across the industry regarding the build process. Symptoms include: <ul style="list-style-type: none"> ○ Lack of co-ordination across the involved disciplines. 	<p>The group agreed this is not specifically a Building Code issue, rather required a system wide response.</p> <p>The Building Code could support remediation through:</p> <ul style="list-style-type: none"> • Review of the test requirements in the



Risk Identified	Conversation	Insights for MBIE
	<ul style="list-style-type: none"> ○ Minimal amount of time onsite by those responsible for building design or compliance ○ Accuracy and compliance reliance placed on installers. ○ Reliance on self-compliance ● This risk is arising in both new and existing buildings with high remedial costs. ● The risk, and test requirements, should expand to consider smoke rating ● The Acceptable solutions show details but these may not have been tested for smoke. ● The role of BWOFF may need to be reviewed regarding its support for passive fire protection ● Acknowledgement that data is not available to quantify the problem. 	<p>Acceptable solutions.</p> <p>On a broader MBIE level could consider:</p> <ul style="list-style-type: none"> ○ Product and installation labelling requirements ○ Lifting processes around assurance in the Construction process ○ Reviewing the occupational regulation around installers. <p>MBIE noted that it would be helpful for industry to bring further suggestions on areas of focus back to the BCTRAG to obtain a perspective on the system level gaps.</p> <p>It was also noted that the response to this issue needed to be industry wide, and we need to collaborate to resolve.</p>
<p>Disconnect between Structural and Fire Engineering</p>	<ul style="list-style-type: none"> ● Issues are arising with clarifying roles and responsibilities where construction and design elements intersect. ● This is not isolated to the engineering field but also includes a number of other professions engaged in the build process e.g. Architects, Trades, BCA's, Project managers. ● The Building Code can lead to confusion over the roles and responsibilities primarily where elements cross code clauses i.e. B1 and C1-6 ● One of the main issues is around inconsistency in documentation. i.e. disconnect between structural and 	<p>Again, modifications to the Building Code cannot resolve this issue in isolation.</p> <p>However, the following changes to the Building Code were suggested:</p> <ul style="list-style-type: none"> ○ Clarify roles and responsibilities. ○ Review how to develop elements that cross code clauses. <p>This is a risk that the industry, with the support of Govt needs to collaborate to help resolve</p>



Risk Identified	Conversation	Insights for MBIE
	<p>architectural drawings.</p>	<p>It was noted that a number of work packages are under way by MBIE:</p> <ul style="list-style-type: none"> ○ C6 / B1 review ○ Roles and Responsibilities Project (MBIE / Eng NZ/ SESOC)
<p>Aluminium Composite Panels</p>	<ul style="list-style-type: none"> • In Australia insurers are withdrawing insurance from buildings with ACP facades. • ACP in NZ is not a systemic widespread issue and we have a number of measures in place that take into account the flammability of ACP in current technical settings regarding life safety and building collapse. However, the group expect that the NZ insurance industry may following Australia and withdraw insurance for ACP clad buildings essentially raising the bar above the Building Code. • ACP specifically may not be a Building Code issue as the intent of the code is met (occupants able to escape building and adjacent buildings are not impacted). • A strategic risk was highlighted for all combustible claddings that the assumptions in the fire settings may be challenged by the increased speed and potential of fire spread of new design innovations and /or new products. • Is could be more appropriate that this risk is regulated by the product regulations? 	<p>MBIE agreed that the most relevant aspect of this at this time is understanding the current assumptions around fire spread in BC performance settings, as innovations in products and design may not suit these assumptions.</p> <ul style="list-style-type: none"> • FENZ to partner with MBIE to consider if the assumptions in the Code Clauses are robust enough to deal with 'increased flame spread potential' from the integration of new innovation or products into the building code system. • Review the assumptions in the Cladding guidance for opportunities to provide clarity on re-clad requirements and options for cladding requirements to flex based on a height requirement. • Assess where the E2 and C code clauses solutions could be co-ordinated for structure and fire.
<p>Training and Education</p>	<ul style="list-style-type: none"> • This is a broad issue regarding base knowledge, ongoing training and 	<p>It was agreed that no modification to the Building</p>



Risk Identified	Conversation	Insights for MBIE
Pertaining to the Building Code	<p>upskilling.</p> <ul style="list-style-type: none">• Training provided by industry groups and apprentice programs may not sufficiently include the details of the legislation or the role and responsibilities of other industry groups.• People do not have the time understand or upskill / educated on how to comply.• Agreement that there is a need for more substantive training and that everyone has a responsibility to play in addressing• The knowledge needed is proportionate to role and responsibility the user has in the Building Code System.	<p>Code is required to support this resolution, and that Education is often the role of the occupational licencing boards.</p> <p>However, it was also noted that training of how the BC works, especially its 'performance basis', is not always apparent in the industry training and education packages, and that there will be many system benefits to enhanced BC education and training.</p> <p>The presentation noted the BOINZ has an extensive training and education approach/package.</p> <p>MBIE commented that a Building Code 101 module is being developed but will not provide granular technical training, but is targeted at a broader base.</p>

Other comments

Other comments echoed by multiple members, throughout the day that impacted multiple risk discussions included:

- Broad system wide view is needed on risks and potential remediation
- An across Code Clause view is needed for some performance areas
- Roles and Responsibilities need clarity in multiple areas (education, roles, ownership)

ACTION ITEMS

The secretariat will:

- Distribute minutes from this meeting for comments



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- With the final minutes distribute the meeting presentation
 - Develop and distribute the summary
 - Further the development of a webpage on the MBIE website to host BCTRAG documents

The Chair thanked all members and closed the meeting at 2.30pm

Next Meeting

Date:	Wednesday 27 November, 2019	Time:	9.30 am – 2.30 pm
Venue:	MBIE, 15 Stout Street, Wellington		