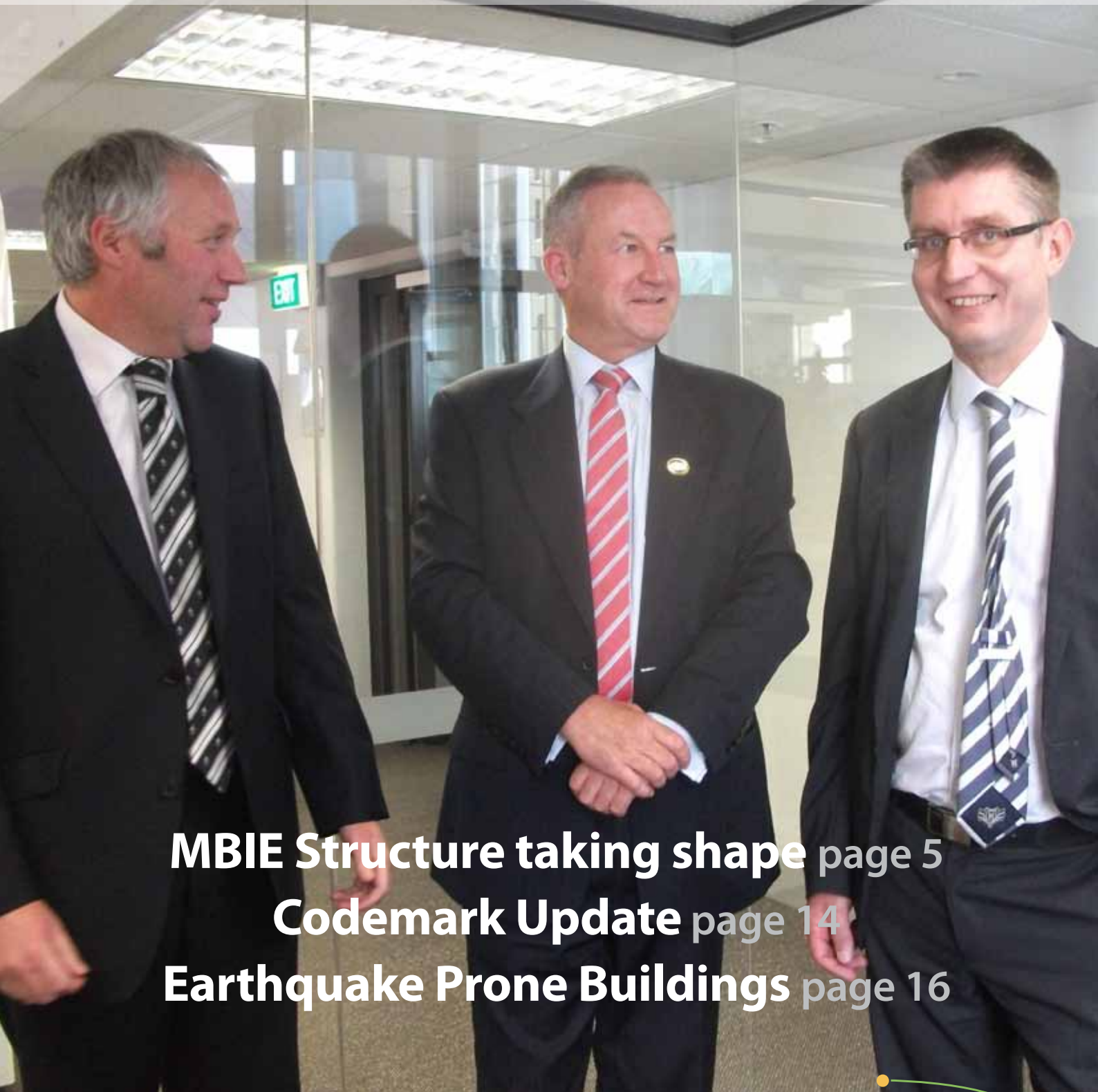


# straight up

THE MAGAZINE OF THE BUILDING OFFICIALS' INSTITUTE OF NEW ZEALAND

DECEMBER 2012



**MBIE Structure taking shape** page 5  
**Codemark Update** page 14  
**Earthquake Prone Buildings** page 16

**BUILDING OFFICIALS  
INSTITUTE OF  
NEW ZEALAND**

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CONFERENCE**

**ROTORUA  
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# straight up

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ISSN 1175-9739 (Print)

ISSN 2230-2654 (Online)

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# From the Presidents Desk

## “Big Steps towards Professionalism”

As we approach the Christmas season, I am delighted to extend Season’s Greetings to all our members, stakeholders and friends.

Your support through 2012 has assisted the Institute in its journey to fulfilling our mission of professionalising the Building Control sector.

Over the last twelve months I have been fortunate, thanks to your kind invitations, to have visited a number of our branches and as a result I am very conscious of the pressures and demands that have challenged us this year. I know that a lot of our members have been dealing with significant issues through the present global financial crisis that has spilled into 2012. Our expectations around a building and construction industry rebound have yet to eventuate and a consequence has been local government structural responses up and down the country.

As professionals we have largely survived and I know we will continue to be in demand as the sector looks to develop in the later part of 2013, and onwards. Over the next 12 months and thereafter there will be a greater demand for qualified and competent staff and now is the time to be preparing for what is yet to come. Much has been said that our immediate future is likely to be a tale of two cities, Auckland and Christchurch,

however it is also likely the changes in the way we undertake our roles will create workloads nationally. Many of us are now working co-operatively on an inter-council basis and technology now available to us is likely to see this extended. There is no better time to reflect on our dedication and commitment to ensuring we have capacity and ability to meet the demand these changes will bring.

As we move into 2013, your Board will undertake a strategic review to position the Institute and its members with the ability to actively engage and contribute to the demands ahead. The current year has been a successful one, on the back of hard work, commitment and dedication at all levels. As we move into 2013 the challenges will not be any easier, just different, but there is one thing I am sure of – we will deliver to the best of our ability in the same professional manner that we always do.

May you have an enjoyable break and I look forward to seeing you all next year.

**Phil Saunders,**  
**Building Officials Institute of New Zealand President 2012.**





The PrefabNZ 2013 Conference is being held on 13-15 March, 2013 at the Puke Ariki Museum and Copthorne Hotel Grand Central in New Plymouth. This is a first for the prefabrication industry in New Zealand and will focus on 'Collaboration for Growth, Economic Resilience and Future-Proofing'. It brings together local and international speakers in a three-day format which includes thought-provoking presentations, guided tours of the prefabrication exhibition, and a panel discussion.

For more details including the full draft programme and registration info, visit the PrefabNZ website.



## Metals New Zealand Industry Conference 2013

Metals New Zealand in conjunction with its industry association partners HERA, SCNZ, NZSSDA, NASH, CTNZ, GANZ and TIDA are pleased to announce our intention to hold the Metals New Zealand Industry Conference 2013 at the Classic Flyers Aircraft Museum in Tauranga from the 9th – 10th of May 2013. Registration for Conference can be done at [www.metals.org.nz](http://www.metals.org.nz)



For registration details visit [www.boinz.org.nz](http://www.boinz.org.nz) – Early Bird Registration Available! Technical Programme details to be announced soon!



## Extra Conferences.

Date	Venue	Location
28 March 2013	Green Property Summit	
13-15 or 20-22 June 2013	NZIQS Conference	Queenstown
10-12 July 2013	The Property Institute Conference	Queenstown
30 July – 3 August 2013	Contractor's Federation joint conference with the Australian Civil Contractors Federation	Queenstown
First week September 2013	Property Council Annual Conference	Brisbane (TBC)
25-27 September 2013	Architectural Designers New Zealand Conference	Dunedin
16-17 October 2013 TBC	IFE & SFPE	Auckland

# THE 2012 INTERNATIONAL STRAW BUILDERS' CONFERENCE (ISBC)- ESTES PARK, COLORADO, USA

The 2012 ISBC, hosted by the Colorado Straw Bale Association, took place in September at Estes Park, high in the Rocky Mountains. A particular feature of the ISBC is its broad sector engagement, and this conference was no different: builders, designers, engineers, homeowners, researchers, and educators from the United States, Canada, Europe, Japan, Pakistan, India, Israel, Australia and New Zealand all met for an intensive week of presentations, panel discussions and hands-on workshops.

One of the main issues faced by designers, builders and building officials in New Zealand is the lack of consensus about what constitutes acceptable straw bale building practice. The international significance of the issue was illustrated by the choice of building code author David Eisenberg to open the conference. Eisenberg is an architect and educator who has a long involvement with integrating sustainable principles into building regulations in the USA. He served on the board of the United States Green Building Council, and was founder and chair of its Code Committee. Keynote speaker John Straube followed with a presentation about the science necessary to inform good building practice, a prerequisite for regulating.

Straube, based at the University of Waterloo in Ontario, is an internationally renowned expert on building enclosure design whose research includes laboratory testing of straw bale wall assemblies. He switched from detail to big picture with ease, summing up his presentation with a list of goals which included this: "Make comfortable, healthy, durable and affordable homes that damage the natural environment as little as possible and make lots of them quick."

California-based architect Martin Hammer, author of the chapter "Building Codes and Standards" in Bruce King's seminal 2006 book "Design of Straw Bale Buildings", spoke about code development in the USA, where a



*Min Hall is a Registered Architect, teacher and researcher who attended the ISBC conference assisted by BOINZ, Unitec School of Architecture and the Earth Building Association of New Zealand (EBANZ). Her talk entitled "Straw Bale in Aotearoa New Zealand" included a history of straw bale building in New Zealand and a report on current practice, challenges and opportunities.*

number of counties and states have straw bale codes or guidelines. The Californian guidelines, for instance, are often cited in New Zealand building consent applications. Hammer and others are currently working on an appendix to the International Building Code in an attempt to gain consensus across the whole of the USA. Other delegates reported from France, where a straw bale code was published this year, and British Columbia in Canada, where researchers are working on a performance-based code which will be out for review in early 2013.

Useful building regulations require on-going material testing to support them. Although there has been very little controlled testing of straw bale walls in New Zealand, other parts of the world have been more active in this. German architect Dirk Sharmer spoke about a five storey straw bale building currently under construction near Hamburg, and the associated structural, fire, thermal and moisture testing that formed part of the design process. Andrew Thompson from the University of Bath gave a presentation, "Five Years Research Experience of Prefabricated Straw Bale Construction", which included post-occupancy testing, or 'strawtoppies', of a number of structures built in partnership with Modcell Construction in the United

Kingdom.

The conference was not only about codes and building science. Other sessions covered humanitarian projects, innovative construction techniques, affordable housing schemes and training programmes for 'natural' builders. Between them, the five New Zealand delegates – four builders and one architect – participated in most sessions including the workshops. By the end of the week there was talk of holding the next ISBC in New Zealand in 2016.

This would be a wonderful opportunity to bring people with expertise in natural building systems from around the globe to New Zealand to share knowledge and advance the cause of building healthy, energy efficient buildings that, to quote John Straube, "damage the natural environment as little as possible."

**"Min Hall will present on what she learnt in Colorado at the BOINZ Conference in Rotorua 2013".**



*"Workshop participants taking part - Builders Andrew McCurdy from New Zealand and Tom Rijken from Holland building a straw bale wall"*



This edition's cover of Straight Up features Nick Hill, Chief Executive of the Building Officials Institute of New Zealand (center) meeting with Andrew Crisp (right) and Adrian Regnault (left) of the Ministry of Business, Innovation and Employment (MBIE), Infrastructure and Resource Markets Business Group. Andrew Crisp joins Ministry of Business, Innovation and Employment (MBIE) as the Deputy Chief Executive of Infrastructure and Resource Markets. Andrew has worked at the Treasury for most of his career, holding a number of senior roles including Assistant Secretary, State Sector Performance. He was most recently at the Ministry for the Environment as Deputy Secretary Programmes and Deputy Secretary Strategy and Corporate. Andrew has worked in various policy domains including fiscal policy, labour markets, housing, social policy and public sector performance. In his new role Andrew is responsible for a range of policy areas of interest to members including Building System Performance and

Construction and Housing Markets. Adrian Regnault, who many of our members will be familiar with, is in the role of General Manager Building System Performance. As part of his role, Adrian leads a team involving Building System Performance, Building Standards, Regulatory Implementation, Determinations and Assurance and Consent System Capability.



*Jeffrey Brookes, newly elected  
AIBS National President*

## Australian Institute of Building Surveyors appoints new National President

The Australian Institute of Building Surveyors (AIBS) has recently appointed Jeffrey Brooks as their new National President for the 2012 – 2014 term.

On interview, Jeffrey said "AIBS is the peak body for Professional Building Surveying in Australia. AIBS recognises the need to operate in a more competitive marketplace and enhance the status of Building Surveying in Australia. An important part of mine and the Board's role is to create opportunities in Building Surveying, so the younger generation know our role and want to become a Professional Building Surveyor".

The Building Officials Institute of New Zealand is dedicated to continuing to strengthen the working relationship between BOINZ and AIBS, and looks forward to working with Jeffrey in the future.

## 5 PREFAB NZ'S TOP 5

Check out these web-links for a taste of innovation, inspiration and intrigue From PrefabNZ CEO Pamela Bell

### Engineering

There is no time like the present to motivate young girls into the field of engineering. Check out this educational and fun new toy!

<http://www.kickstarter.com/projects/16029337/goldieblox-the-engineering-toy-for-girls>

### SQM - House

Check out this functional and adaptable one-SQM-house that's not only portable, but offers a chance to get away from it all...

[http://www.dwell.com/articles/The-Potential-of-a-One-Square-Meter-House.html?utm\\_source=newsletter&utm\\_content=101912&utm\\_campaign=thisweekfromdwell&utm\\_medium=email](http://www.dwell.com/articles/The-Potential-of-a-One-Square-Meter-House.html?utm_source=newsletter&utm_content=101912&utm_campaign=thisweekfromdwell&utm_medium=email)

### Etgar Keret's House

Just when you thought there was no way to fill those unsightly spaces between building, a Poland-based architectural

firm have developed a domestic building entitled Etgar Keret's House.

[http://www.springwise.com/homes\\_housing/in-poland-designers-turn-unused-crack-buildings-home/](http://www.springwise.com/homes_housing/in-poland-designers-turn-unused-crack-buildings-home/)

Prefab is on the rise in Canada! With a greater awareness of environment issues and an increase in strong architectural design, Canadians are now starting to see the value of prefabricated homes.

<http://designbuildsource.ca/2012/09/canada-prefab-easy-effective-green-building/>

The SoMa Studios, a stylish 23-unit apartment building in San Francisco, was built in just three months – a fraction of the estimated 13 months for the same project using traditional construction – and the four stories went up onsite in just four days. [http://www.modular.org/HtmlPage.aspx?name=LEED\\_Urban\\_Prefab\\_SoMa](http://www.modular.org/HtmlPage.aspx?name=LEED_Urban_Prefab_SoMa)

PrefabNZ is the hub for prebuilt construction - more info about PrefabNZ is at [www.prefabnz.com](http://www.prefabnz.com) or contact [info@prefabnz.com](mailto:info@prefabnz.com)



# Facing up to the “complex, messy, wicked problem”

## Eco Design Advisor Conference 2012 Hamilton

By Eion Scott

Sustainable building design now has a new fashion statement: act like a godwit and be the change you want to happen.

That was the message that keynote speaker Niki Harré gave to the Eco Design Advisor 2012 conference in Hamilton at the end of October. In an inspirational and interactive address, the Auckland University Associate Professor of Psychology had the more than 100 building officials, designers, architects and sustainability advocates grinning and following her Simon Says instructions. The point was that people are great mimics, and to get people to change behaviour, you need to demonstrate the behaviour you want them to imitate.

Harré used the godwit as an example of group behaviour - a bird that flies en masse to New Zealand from the other end of the Pacific, every year without fail, and finds exactly the same nesting area to ensure the survival of their species.

People will imitate bad behaviours as well as good. So if you leave litter around, people will think it is ok to drop litter, even if there is a sign saying you shouldn't. But it doesn't mean there's only one right way. Because sustainability is such a “complex, messy, wicked problem”, there is any number of equally valid ways to reach a solution.

Harré says this is actually liberating – if we disagree on the solution, we can all take the route we believe is the right way to get there.

There followed a stimulating, educating and fun six hours of finding out how to reach solutions on a wide range of residential building issues – from construction waste management, to wastewater recycling, to photovoltaic energy generation, to the science of humidity and moisture control, to window glazing and treatments.

The Open Day, the first to be held by the nationwide Eco Design Advisor (EDA) network, was ably MC'd by Hamilton City Council EDA and chair of the Waikato Branch of BOINZ, Ian Mayes. He introduced the other six EDAs, representing Auckland, Palmerston North, Kapiti, Hutt and

Nelson councils and they spoke of the benefits to councils of providing this service, with the aim of encouraging many of the delegates to lobby for their council to offer it.

Several, including delegates from South Waikato, Christchurch, Queenstown Lakes and Southland, have indicated a keen interest in being EDAs, while others representing Environment Centres, Community Energy Advice centres and sustainable-oriented design practices have indicated a need for this service in their council areas, to reinforce their own messages to clients on living lighter and building more efficiently.

For further information and conference presentations, go to [www.ecodesignadvisor.org.nz](http://www.ecodesignadvisor.org.nz).

For a copy of Niki's book Psychology for a Better World go to <http://www.psych.auckland.ac.nz/uoahome/about/our-staff/academic-staff/niki-harre/psychologyforabetterworld>



Keynote speaker Niki Harré inspires delegates through “Simon Says” the Building Policy section of Auckland Council.



Michael Lawley from EcoInnovation ([www.ecoinnovation.co.nz](http://www.ecoinnovation.co.nz)) demonstrates solar electricity the Building Policy section of Auckland Council.



Keynote speaker Niki Harre, Auckland University Associate Professor of Psychology



## Building Amendment Bill (No 4)

On 26 October 2012 Building Amendment Bill (No 4) was reported back from the Local Government and Environment Select Committee. This Bill is currently awaiting its second reading. This Bill proposes changes to the Building Act 2004 (Building Act) to introduce consumer protection measures that will help New Zealanders who are building or renovating their home to hold their building contractor to account, and to get any faults fixed quickly and more efficiently.

The Bill also proposes some minor and technical amendments to the Building Act, including clarifying Schedule 1 of the Building Act to make it easier for people to access and understand information about work that is exempt from requiring a building consent. Revised guidance on building work exempt under Schedule 1 will be provided following passing of the Bill.

## Licensing

The Ministry of Business, Innovation and Employment (MBIE) has completed a series of 31 Licensed Building Practitioner (LBP) policy consultation workshops around the country. Around 2000 practitioners attended the workshops, and MBIE has received over 240 submissions. These have been analysed and advice provided to the Building Practitioners Board for its feedback and suggestions. Advice on possible law changes is expected to be provided to the Minister for Building and Construction by Christmas. A summary of submissions is being finalised and will be available on the MBIE website in the near future.

Nationwide, as at 21 November 2012:

- 23,303 building practitioners have applied for 30,368 licences
- 21,288 building practitioners have been granted 25,956 licences
- In Canterbury, 3,586 building practitioners have been granted 4,266 licenses

## GeoBuild™ - Setting the Standards for Interoperability

### What is GeoBuild™?

GeoBuild™ will set national minimum standards and software protocols to allow the sharing of information between the

private and public sectors within the built environment. Three initial technology applications have been identified to adopt the GeoBuild™ standard and, when interoperable, they are expected to result in improvements in productivity, building quality, better safety and lower building costs.

How will the GeoBuild™ standards be set? MBIE, Land Information New Zealand (LINZ), and the Ministry of the Environment (MfE) are working together to bring interoperability between a National Online Consenting System, Building Information Modelling (BIM) and Location Based Information. A National Standards Technical Committee has been formed with representatives from the private sector, various government agencies and academia to define and establish the proposed interoperability standards.

### What will be the benefits of GeoBuild™ be?

Land and building owners, developers, architects and designers, building and construction companies and central and local government agencies will be able to locate, quickly and simply, all the available information about a particular piece of land or building. They will be able to see everything above and below the ground and, if the building was designed using Building Information Modeling (BIM) software, a 3-D view of the building and its structural components. This information will inform better decision making and save time and money for any new developments or building work.

Another important benefit will be the ability to collect data on buildings as they are planned, consented and built, and monitor their performance over the lifetime of the building.

Analysis of this rich multi-level built environment information will enable identification of building designs and systems, or particular products that may be found to have faults many years after they were installed.

### Why is access to this information not available now?

Much of this information exists today but it is held in many different places (private businesses, central and local government agencies, owners etc) and in many different formats (paper, electronic, digital etc) and locations. The information is in silos and therefore isolated. The lack of common standards and formats limits access and use of the information by the people who

need it.

How will the GeoBuild™ interoperability standards be introduced?

The GeoBuild™ interoperability standards will be applied initially to three technology applications: a National Online Consenting System, Building Information Modelling (BIM) and Location Based Information.

1. National Online Consent System – Proposed by the Infrastructure and Resource Markets Group at MBIE, this system is critical to GeoBuild™. The online system will accept digital applications for building consents and any information submitted as part of the consent application will have to be interoperable with other information complying with the GeoBuild™ interoperability standards.

Electronic applications will be easier and cost less than paper applications and the lodgement forms and process will be the same for all Building Consent Authorities (BCAs). All BCAs will process the consent applications electronically and the application can be worked on by all BCA processing sections at the same time. The system will also allow building inspectors to undertake inspections and, using smart devices such as iPads or tablets, to record information and use electronic stamps to confirm compliance with Building Code and any conditions of the building consent.

The total projected direct minimum benefits of the National Online Consent System are \$67.3million per annum. This amount includes time saved by applicants and BCAs, and benefits to builders from the early issue of the Code of Compliance Certificate.

2. Building Information Modelling – (BIM) is digital software that generates a three dimensional representation of the physical, spatial and functional characteristics of a building. BIM allows every participant in the design, construction and consenting process to view the proposed building in a virtual environment. The data-rich information of a BIM allows information critical to the integrity, design and purpose of the building to be analyzed and validated before construction starts. BIM can detect clashes in design which will reduce errors and rework. BIM information can be extended beyond 3D to include project scheduling and logistics (4D), project costing (5D) and life cycle management (6D).

An Australian review in 2010 estimated

average cost savings by users of BIM to be as follows: architects 9.6%, engineers 6.4%, contractors 5.5% and owners 5.5%. In New Zealand the value of non residential building consents issued in the calendar year ended 31 December 2011 was \$3.64 billion . A 5.5% saving represents a potential saving of \$182 million if BIM had been used on those construction activities from the design through to construction stages.

3. Location Based Information – Local and central government agencies such as Land Information New Zealand (LINZ) gather information about the natural and built environment including what is on, under and above the land. LINZ also manages the cadastral database and Land Online, the land registration system. LINZ is about to upgrade its information systems and adopting the GeoBuild™ interoperability standards will improve access to, and usability of all location based information.

The use of location based information added \$1.2 billion in productivity related benefits to the New Zealand economy in 2008. Estimates show that removing key barriers could have added a further \$481 million a year and generated an additional \$100 million in government revenue.

**Summary**

Each of these technology applications will produce its own benefits for the building and construction sector. The GeoBuild™ interoperability standards will allow access to otherwise isolated data sets resulting in better and more informed decisions affecting the built environment.

**What will the GeoBuild™ trademark mean?**

Where the GeoBuild™ mark appears it will indicate to the user that the information they are about to use is interoperable with other information bearing the GeoBuild™ trademark. Over time it is expected that new holders or providers of information will wish to adopt the GeoBuild™ interoperability standards and become part of a larger and richer source of data and information within the building and construction sector.

**Wider Applications and Opportunities for GeoBuild™**

The benefits of GeoBuild™ go well beyond the design and construction of buildings.

The nature of information contained within the building sector can benefit emergency response services; enhance police services; and assist government agencies in making better decisions. For very little additional cost a platform will be set to enable anyone to design innovative applications using the available information. It will create new business opportunities and new ways to enhance productivity and value that are not possible without GeoBuild™ interoperability.

An example is access to GeoBuild™ trademarked information by emergency services. A fire brigade on the way to a call out could use a tablet device to gain immediate access to information about the design, purpose and construction of a collapsed or damaged building. This information adds significant value to the planning of the rescue operation.

**BOINZ are proud to be resellers of NZ Standards**



As a further membership benefit the Institute has negotiated with Standards New Zealand to become an official Reseller. What this means is that members now have access to a range of published standards and standards related products (Hand books, Codes of Practice etc).

Purchasing these vital products allows you to understand and comply with legislation more easily, and what's better is that they are available to you at a discounted rate off the RRP by purchasing through BOINZ.

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**2013 BOINZ TRAINING CALENDAR**

On page 20 and on our website  
<http://www.boinz.org.nz>

## Invercargill City Council appoints Eco Designer

Invercargill City Council was so impressed with presentations to the Southland Energy Conference on the value of the Eco Design Advice service that they appointed one of their building consents staff to the role.

Keiron O'Connell, a new member of the building consents team, is to fill the role on a half-time basis while managing his building consents processing work the rest of the week.

Keiron recently returned to the south after 20 years in Britain, where he gained his qualifications in architecture and worked in the industry. In this time he developed a passion and experience for sustainable and energy efficient development, both working for himself and for design practices.

With power bills becoming a pressing issue for households, Invercargill City Council's appointment of an Eco Design Advisor goes some ways to addressing energy efficiency.

Invercargill City Council building manager Simon Tonkin says that Invercargill has a large number of older houses. "It is especially important to ensure that, when this type of house is upgraded, the owners have access to the latest information to enable them to make sustainable, cost-effective improvements," he says.

"This is where the council sees Eco Design Advisors playing a role in the short term, providing good advice to all. Council will also be promoting eco design to all designers in the region," he says.

## Nelson/Marlborough Branch Meeting

After months of preparation, it was great to see everything come together including the normal fine Nelson weather playing its part. It was also fantastic to have Nick Hill, our Chief Executive here for the branch meeting and kart racing and I was rapped to have our Canterbury/Westland branch friends here as well with 4 from Canterbury and 2 from the West Coast.

It was a great afternoon with heaps of laughs and tight kart racing with the Walla Walla Weasel whackers from Nelson City Council winning the 120 lap grand prix.

A great meeting with Keith Langham presenting how his expensive thermal imaging camera works and his power-point showed us some great photos of the sort of findings he has come across over the years,

Nick Hill followed up with a very informative speech regarding Reg 18 requirements and he presented Bill East and Graham Roberts from Marlborough District Council with their certificates for outstanding contribution to the Nelson/Marlborough Branch in 2011/2012 for getting another 8 members from MDC in one push, simply outstanding efforts guys and many thanks from the chairman Phil Roberts.

It was a fantastic afternoon for all involved

and I wish thank the Canterbury/Westland branch members for their efforts to attend our meeting and Christmas BBQ and Kart racing event with special thanks to Mike Olds of Rockcote Systems Ltd for his sponsorship of your BBQ and drinks after the kart racing. The winning team for the kart racing was the Nelson City Council team of Winton Griggs, Phil Judge and Timothy Ball - their team name was the Wacca wacca weasel whackers!

As Christmas rolls around too quickly for us all, I would like to take this chance to thank our branch secretary David Curl for his outstanding efforts during 2011/2012.

I would also like to wish all branch members and their families, the Institute's board, the CEO and the very lovely National office ladies a very merry Christmas and a very happy new year for 2013.

I look forward to seeing all members back for our first branch meeting in February 2013 at Nelson City Council after a great rest and recharge.

Best regards,  
Phil Roberts  
Branch Chairman.



## Tasman Insulation Factory Tour

Touring the Tasman Insulation factory in Christchurch was a worthwhile experience for members of the Canterbury/Westland Branch of BOINZ.

Our October meeting concluded with 6 groups being escorted around the Pink Batts factory that operates 24/7, 364 days of the year.

Tasman Insulation began operation in 1961 and currently manufacture in plants located in Auckland and Christchurch.

For the last decade, the glass wool has been manufactured from up to 80% recycled glass and more recently has made use of the excess of broken glass from some of Christchurch's iconic buildings. Glass wool is superior thermally, acoustically and provides superior fire performance in buildings. Both manufacturing plants are committed to continually striving to reduce the environmental impact from its production. The introduction of more efficient electric motors, a new regular replacement policy of these motors, energy efficient lighting in the buildings and the use of a wet waste screw press are all ways Tasman Insulation are endeavoring to be a sustainable business.

The manufacturing process is shown below:

Glass-wool manufacturing uses a mixture of materials – up to 80% of glass with the balance made up of sand, soda ash, borax and limestone.

An electric kiln heats the glass mixture until molten at over 1,200°C. From the furnace the liquid glass is feed through a hole sized about 20mm. From here it is run through spinners, which force liquid glass through small holes to solidify into a vast mass of tiny fibers. This looks like candy floss!



Resin is sprayed onto the fibres and they are bundled together by a forming hood, creating a continuous fibrous mat. The resin is cured by heating at around 270°C where a continuous conveyor belt moves the fibres under a press.

Then the product is cut into lengths for packaging. Overall, the branch visit to Tasman Insulation was a very informative and enjoyable trip in which we all learnt a lot.

Brenda McIndoe, Canterbury/Westland Branch Secretary.



# Get involved in Standards development

**Standards development committee members bring a wealth of experience and specialist knowledge to the Standards development process, ensuring a balanced representation of stakeholders is achieved.**

## **Put your name forward to be a committee member**

Standards New Zealand calls for nominations from the range of stakeholders relevant to a Standard, prior to commencing development.

Contact your national association or industry body and let them know you're interested in becoming a committee member so they have your name on-hand when nominations are called.

## **Liaise with existing Standards development committee members or reference groups**

If a Standard is in development, the committee members from your industry will be keen to hear from you to inform the development process.

Find out from your national association or industry body who is serving on Standards development committees currently. Also ask if your industry association has a Standards development reference group – you can liaise with these individuals and/or reference groups and provide input on matters of interest.

You can also submit papers and opinions to them as inputs to Standards development.

## **Provide your feedback during the public comment phase**

Before a new, revised, or amended Standard is published, Standards New Zealand issues a draft of the proposed document for public comment.

Have your say on drafts and provide feedback to us on the proposed content (see **Touchstone** and **Keep Me Up To Date** below).

## **Keep up to date with Standards in development and new publications**

Standards New Zealand publishes a free monthly e-zine, **Touchstone**, which has information on Standards in development, and new, revised, and amended documents.

Subscribe to **Touchstone** and receive email alerts each time an issue is published.

Go to <http://www.standards.co.nz/web-shop/> and scroll down to subscribe.

To see the current issue and back issues of **Touchstone**, go to <http://www.standards.co.nz/touchstone/>

We also have a free alert service called **Keep Me Up To Date** which provides email updates on specific NZS and AS/NZS publications or groups of publications when a draft is issued for public comment, and when a publication is published.

You can subscribe to the **Keep Me Up To Date** service at the same time you subscribe to **Touchstone**.  
If you have any questions, please email [enquiries@standards.co.nz](mailto:enquiries@standards.co.nz) or call 0800 782 632 during business hours.

**What protection do third party builder guarantees provide?**

Recent submissions from both Wellington and Christchurch city councils to the Select Committee considering The Building Amendment Bill (No 4) strongly advocated for some form of compulsory insurance to protect homeowners from defective building work. This would also be intended to limit Council liability as the “last man standing” in legal action arising from such cases.

The Select Committee has recently published its recommendations. They appear to have stepped back from any mandatory scheme, as was advocated by submitters, instead referring to the Law Commission’s review of joint and several liability laws, which includes a brief to consider home warranty insurance in this context.

However, one proposed change will require building contractors to provide their clients with a declaration and checklist prior to entering into a contract. This is likely to increase awareness of third party guarantees, as builders use their eligibility to offer these as a competitive edge. The DBH estimates that already 50% of new homes are built under the protection of a third party builders guarantee. So what are these guarantees all about and what benefits do they provide?

The two main builders guarantees available in New Zealand are the Master Build Guarantee and the Homefirst Builders Guarantee.

**Master Build Guarantee**

The Master Build Guarantee is only available from a Registered Master Builder. There are a number of different options that a client can choose, including Standard, Classic and Premium versions of the guarantee. Each provides a different level of protection, at a different cost.

**Homefirst Builders Guarantee**

The Homefirst Builders Guarantee is available from all members of the Certified Builders Association. It is independently administered and underwritten by a licensed New Zealand insurer. If a building contractor is not a Master Builder or a Certified Builder, but does hold a carpentry LBP license, they can apply to become a Homefirst Guarantee Accredited Builder.

**How do they work?**

Having a builders guarantee means the surety provider will help a homeowner

complete their home, fix defects and ensure they’re not left out of pocket if their builder goes into liquidation or otherwise can’t be found. It guarantees the obligations of the builder providing the guarantee, not the building itself. Sometimes owners purchase fittings and engage sub-contractors directly and these will not be covered by the guarantee.

**Why are they becoming more common?**

Builders guarantees, also known as Home Warranty Insurance, are common overseas and compulsory in many states of Australia. In New Zealand, media reports, the leaky homes crisis and some high profile building company collapses in the past few years have meant that increasing numbers of homeowners are looking for the reassurance that an independent guarantee gives them.

Mortgage lenders, architects and lawyers are also increasingly recommending that their clients ask for an independent guarantee from their builder.

The aforementioned potential changes to The Building Act 2004, as well as recommendations from the Law Commission review of joint and several liability laws, may also increase the prevalence of third party guarantees for building work in New Zealand.

**What do they cover?**

The common features of builders guarantees include cover for:

- Loss of deposit
- Extra costs to complete the job
- Non-structural defects for 2 years
- Structural defects for either 7 or 10 years

They are generally available for residential new builds, alterations or additions. Builtin New Zealand, the administrator of the Homefirst Builders Guarantee, also offers a warranty covering the remediation work performed on leaky homes. Called the WaterTight Warranty

(www.watertightwarranty.co.nz) it is only available from contractors who have first met their strict accreditation criteria.

**What is the difference between a guarantee/warranty and insurance?**

Put simply a guarantee means that in the event of a particular event happening, the guarantor will do something if the guaranteed party can’t or doesn’t. Insurance means that in the event of a particular insured event happening, the insurer will pay. A simple comparison may help explain the difference:

So a builders guarantee isn’t insurance – it meets the builder’s obligations if they can’t. The surety provider will, if possible, seek recovery from the builder of all payments made by them.

**Find out more**

Builtin New Zealand has been administering the Homefirst Builders Guarantee scheme for 10 years and more than 11,000 guarantees have been issued in that time. The underwriter of their Guarantee, CBL Insurance Limited, has more than a million homes under guarantee worldwide and are rated B+ (good) by A.M. Best.

For more information contact Ben Rickard, Marketing Manager at Builtin New Zealand, e: ben@builtin.co.nz, p: 07 579 6259, m: 0275 212 014, or visit www.builtin.co.nz

INSURANCE	GUARANTEE
2 Party Contract (Builder or Owner and Insurer)	3 Party Contract (Builder, Owner & Surety Underwriter)
Duty of Utmost Good Faith	Disclosure: as in ordinary contract law
Cancellable (generally)	Non-cancellable
Calculates Premium Based on Losses	No Loss Anticipated, Fee for Service
Involves Transfer of Risk	No Transfer of Risk
No Reimbursement from Insured	Principal (Builder) Reimburses Surety Underwriter

# OF WINGS, BLOCKS AND DIAPHRAGMS

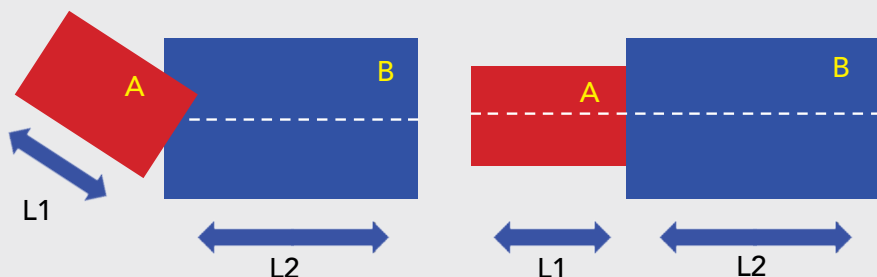
Hans Gerlich, Technical Manager Winstone Wallboards Ltd.

We are often asked if separate bracing calculation is required for 'wings' or 'blocks'. NZS 3604:2011 paragraph 5.1.5 requires wings or blocks to **'provide sufficient bracing individually'** if they extend more than 6 metres from main building. Note that this requirement refers to the **provision** of bracing, and that separate calculation is not mentioned as a requirement.

The intent of the clause is that **provision** of bracing is relative to floor area. In other words, if a wing represents 20% of the total building floor area, then at least 20% of the bracing demand must be provided in that wing. This can be achieved by separate calculation, but is often more readily achieved by treating the building as a single unit and simply ensuring bracing **distribution** is balanced and proportional to floor area.

Even when wings or blocks are at an angle to the main building, a single calculation can be carried out. NZS3604:2011 paragraph 5.4.4 gives guidance for walls at angles to the bracing grid and is intended for single or few individual walls. Wings or blocks at an angle are better treated separately or by 'stretching' the building along the ridge line for calculation purposes and treating it as a single rectangular structure. The **angle to bracing line** function in the GIB® EzyBrace™ calculation sheet does not need to be applied in this situation

Using a 'stretched' rectangular design will deliver the same outcome as doing two separate calculations. **Again the important issue is to ensure that bracing provision and distribution is proportional to floor area.**



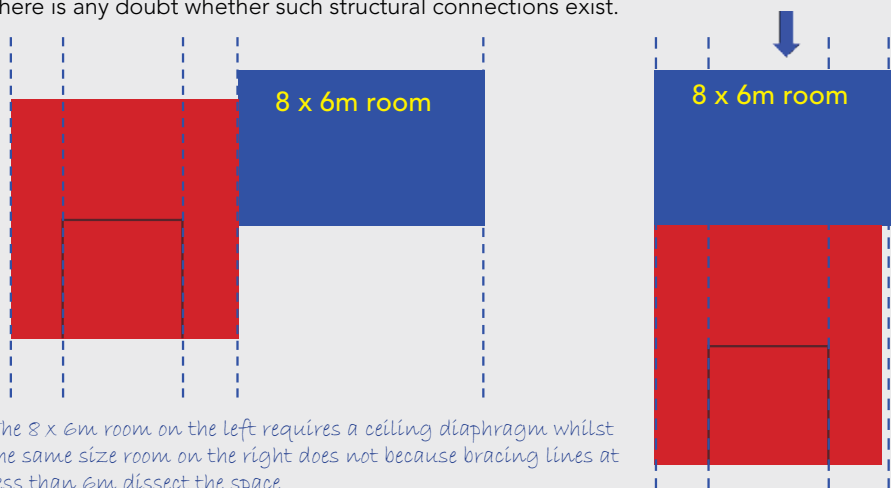
Calculating A and B separately give the same bracing demand as treating them as a single 'stretched' building. Ensure that bracing provision is proportional to floor area.

The other frequently encountered bracing question relates to ceiling diaphragms and when they are required. We often see diaphragms specified where they are not needed.

NZS3604:2011 paragraph 5.4.6 states that bracing lines **'shall not be at more than 6 m centres provided that there need be no bracing lines within the area covered by a diaphragm ...'**. The need for a diaphragm is thus determined by the **spacing of bracing lines** and not by the **dimensions of a particular room**.

The illustration below shows two designs incorporating a 8 x 6 m room. In one case NZS3604:2011 requires a ceiling diaphragm and in the other case it does not because bracing lines dissecting the room are spaced at less than 6 m.

A point to note is that the underlying NZS3604 assumption is that structural framing, such as trusses, rafters and their connections, provide support to the external wall (indicated by an arrow) back to the bracing grid. Use a ceiling diaphragm if there is any doubt whether such structural connections exist.



The 8 x 6m room on the left requires a ceiling diaphragm whilst the same size room on the right does not because bracing lines at less than 6m dissect the space



by John Gardiner  
 Manager Determinations and Assurance  
 Building Systems Performance Branch  
 Ministry of Business, Innovation and  
 Employment



Specialised timber weatherboarding and a flexible wall underlay are the latest building products to achieve product certification known as “CodeMark”, as this voluntary certification scheme gains traction. Auckland-based Timspec has secured CodeMark for its timber vertical shiplap weatherboards, adding to earlier certification for the company’s bevel-back range. Meanwhile, Pro clima New Zealand has achieved CodeMark for its Solitex Extasana wall wrap and now intends to take more products in its airtight and weathertight system range through the process.

CodeMark not only gives a clear signal to BCAs that products are code-compliant (as long as they’re used and installed as their CodeMark certificates specify) but provides a way for manufacturers and suppliers – particularly those with innovative products – to reassure the market that they pass muster.

At a time when the Canterbury rebuild is gathering steam and there’s a drive for “safe innovation”, it’s vital that we encourage new thinking around building solutions without sacrificing quality assurance in the process. The CodeMark pathway not only provides a statutory-backed statement of compliance but also marketing and business risk management advantages. As I mentioned in the September issue, the Ministry will be reviewing the scheme over coming months to see if there are any unnecessary barriers to its take-up as this has still been relatively slow. We are in regular contact with many manufacturers and suppliers who have considered the scheme or been through the process,

and will be contacting a number of them formally as part of this review.

I have been to quite a few different parts of the country lately talking with building officials and it’s been interesting to discover some of the misconceptions out there about CodeMark. These are mostly to do with application costs which, while up to the independent assessing bodies and outside the Ministry’s control, can be reduced substantially if companies have done their homework and already have good standards of product technical information and quality assurance.

Another key misconception is around product appraisals. There are some who seem to think that an appraisal is a prerequisite for product certification. While appraisals will be helpful when seeking certification as part of the evidence base, they’re not essential and other ways to establish evidence are available.

There also seems to be confusion about the position of appraisals and product certification in the regulatory regime. Appraisals have no statutory weight (but are very useful as part of the reasonable grounds test for compliance). By contrast, BCAs must accept products as code-compliant if they have a product certificate (and follow the conditions on that certificate).

In helping to explain all this legislative and compliance stuff to manufacturers and suppliers, we published a product assurance guide a couple of years ago and a number of you have commented on its usefulness. A reminder that we also have extra information online you can direct people to which includes FAQs and a new downloadable business tool to help them assess their business risk, to think about where on the product assurance framework they should be, and work out their options: just go to [www.dbh.govt.nz/product-assurance](http://www.dbh.govt.nz/product-assurance) to find this.

### Codemark In Brief

The CodeMark scheme is provided for under the Building Act 2004 and managed by the Ministry of Business, Innovation and Employment, which also maintains the register of current CodeMark certificates. Products are assessed for CodeMark by product certification bodies, which are independent of the Ministry.

Go to [www.dbh.govt.nz/bic-product-certification](http://www.dbh.govt.nz/bic-product-certification) for more about the CodeMark scheme, details for current product certification bodies and the CodeMark register.

## BOINZ are proud to be resellers of NZ Standards



As a further membership benefit the Institute has negotiated with Standards New Zealand to become an official Reseller. What this means is that members now have access to a range of published standards and standards related products (Hand books, Codes of Practice etc).

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- **NZS 3604:2011 Timber Framed Buildings**
- **NZS 4306:2005 Residential property inspection**



## Working lives: why going online has simplified building controls

John Wilkinson, team leader for building control at Flintshire County Council says making records digital has freed up his team to do more. Here he explains how online systems have simplified building controls.

I'm a joiner by trade, and while I've been at Flintshire county council for many years now, I can't claim to have ever been fascinated by the nuances of our IT systems, so I initially greeted the idea of introducing mobile working to our building control team with a touch of scepticism.

After further elaboration from our web development manager, Jason Snead, however, we agreed that making the 16 years' worth of paperwork stored in our basement readily available on a handheld device was something beneficial, and set about discussing how best to introduce the scheme to our department.

My team and I spend a lot of time out in the field, visiting sites throughout the building process to ensure regulations are being properly adhered to, and in that respect the work we do is inherently mobile. But using expensive technology in this situation required a few individual touches.

We were presented with a range of devices, and (among other things) picked the one we felt would be least likely to come to harm in the course of our duty: a rugged Getac tablet with a big screen. A third party company was then tasked with the unenviable process of turning every file in our vast library downstairs into scale PDFs, so that they could be stored on our system and accessed when required.

It took around five months to digitise the archive, but by the time it was completed we could easily see how the project would work on a day-to-day basis.

Previously, my colleagues and I would all take the necessary papers on site, conduct an inspection, before returning

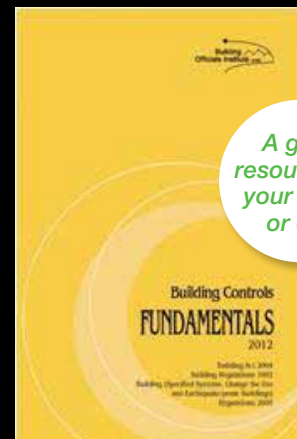
to the office to write up our notes into a full report. Having a tablet computer loaded with every document we require means that we are instead free to queue up a number of inspections in a row, accessing and updating the material we require while on-site without needing to spend time travelling to and from the office in between.

The system also enables those based in the office to send jobs wirelessly to their mobile counterparts, meaning staff have the option of working from home in the mornings but can then react quickly to incoming requests over the course of the day.

Our IT team recognised that not everyone would prefer to read large A1 plans on a tablet screen, so we can easily print off particular sections we require and take them along as a supplement when necessary.

From our experience I can say that the real key to the process is flexibility: managing change is a skill that requires a real understanding of the people you work with. Our scheme has been a great success, and that is in no small part down to the fact that our IT department came to us with an idea and a framework, but asked us, the eventual users, to fill in the gaps – an approach that I would happily recommend to anyone.

John Wilkinson is team leader for building control at Flintshire county council. Article published by Guardian Professional.



A great resource for your office or car.

## Building Controls Fundamentals 2012

Available now

### Book Contents:

The Building Act 2004 and amendments (consolidated with history notes). As at 14 April 2012.

The Building Code – Schedule 1 of the Building Regulations 1992 consolidated with history notes). As at 14 April 2012.

Building (Specified Systems, Change the Use, and Earthquake-prone Buildings) Regulations 2005 – SR 2005/32 with history notes and consolidated amendments of the Building (Specified Systems, Change the Use, and Earthquake-prone Buildings) Amendment Regulations 2005 – SR 2005/338. As at 14 April 2012.

### Book Size:

A5 (approx.) Pages: 300 (approx.)

Visit our book store at [www.boinz.org.nz](http://www.boinz.org.nz)

## Earthquake Resilience

By George Skimming, with input from Vivien Rickard and Ryan Fraser (Wellington City Council).

To understand the reason why a building is earthquake prone and a neighbouring building is not you have to consider many factors coming together to cause one building to be assessed and classified as earthquake prone and the other as code compliant.

It helps when you look at the history of the conditions facing the early settlers of our country particularly when confronted with the geography and climate that influenced their building designs and building practices. You then have to look at how the architectural designs have developed over time as the population grew and the country became more affluent.

Early buildings were constructed of a combination of unreinforced concrete, brick and stone with heavily embellished facades detailed in heavy render. Roof cladding types also varied from corrugated iron, sheet lead and copper, bitumen, wooden shingles.

It was the use of these building materials and building designs that became the benchmark for the future make up of much of our commercial building stock across our cities and towns.

In addition to the building practices and styles of the early buildings, the settlers brought with them their governance practices that they adapted for a new and growing country and as far back as 1867 the then Municipal Corporation Act (MCA) a piece of Legislation based on English law required councils to make bylaws for the management of infrastructure, land development and for the design and control of building work.

Councils of the day were obliged to adhere to this piece of legislation and from it promulgated bylaws for the good governance of building and building design as required by the MCA. Many of the early by-laws were based on overseas standards, engineering design principles and were accepted in total or amended to meet local needs and conditions, at that time there was no uniformity in building bylaws from one region to another.

Many of the Councils that established building bylaws with respect to building design and construction embraced known engineering principles however, after some disastrous fires in places like Auckland, fire safety became a strong consideration in building design and was reflected in the bylaws. Perusal of the bylaws would have revealed that overall there was nothing much in terms of designing for resisting earthquake shocks; this omission was however recognised in the MCA. 1954 and later amendments.

The loss of life and property damage from the 1929 and 1931 earthquakes and resultant catastrophic collapse of many of the unreinforced masonry buildings in Napier and Hastings compelled the Government to establish in 1935 a set of building standards, and later to pass the New Zealand Standards Act in 1941 legislation that resulted in the adoption of the New Zealand Standard Specifications 95 by many Councils and established the basic requirements for buildings designed to resist the effects of earthquakes and were a significant improvement on the previous building bylaws.

Like Napier and Hastings many other cities and towns throughout New Zealand had buildings of similar design and construction that were at risk from damage or collapse in a significant earthquake and soon after the 1931 Hawkes Bay event the Wairarapa earthquake in 1942 damaged many buildings in Wellington, and as a result building owners had features that were considered vulnerable and dangerous removed, this work being done at the time repairs were carried out on the damaged buildings.

A good example was the Wellington Town Hall completed in 1904 which had its clock tower, portico, pediments, parapets and other at risk features removed as a result of the 1931 Hawkes Bay earthquake and additional bracing and further changes made after damage from the 1942 Wairarapa earthquake.

Another event of importance resulting from the damaging earthquakes, particularly the Wairarapa earthquake in 1942 was that the Government established the Earthquake and War Damage Commission in 1944 now known as the EQC. The Commission was tasked with providing financial and other assistance to get homes repaired and help with land reinstatement as a result of the effects of these damaging earthquakes.

The new loadings code applicable today is NZS1170 and defines earthquake loads with an average return period of 500 years for typical buildings.

Citing NZS 1170 as the new loadings code for all new structurally designed building effectively lifted the bar for assessing existing buildings that may have been designed or strengthened to previous codes which means they may no longer meet the level of compliance. Buildings below the 33% of NBS threshold are earthquake prone in terms of the Building Act 2004 section 122 (meaning of earthquake-prone building)

### Earthquake Prone Buildings

A review of the present situation, generally means a structurally designed building from 1976 onward should incorporate ductility in the design, which provides for the structural

elements of the building to have the ability to survive a number of complete displacement cycles on the structure from shaking during a design earthquake.

Buildings designed prior to 1976 were strong but were usually considered a brittle structure which would see them fail from the lateral displacement effects of an earthquake on the structure. In simplistic terms a bit like the difference between a Moro bar and a Crunchy bar in that a Moro bar will flex back and forward or stretch when lateral movement is applied (ductile) where the same lateral movement applied to a Crunchy bar will see it snap and fail (non-ductile).

Older and heritage type buildings built in the early 1900s many constructed of unreinforced masonry (URMs) or unreinforced concrete these were the popular building materials of the day many of their designs incorporated critical features e.g. parapets, pediments and embellishment through the application of heavy render over the masonry.

These buildings and critical features are a risk and are vulnerable from the effects of earthquakes.

To exacerbate the problem many of these vulnerable buildings are erected on reclaimed land, with suspect compaction and without modern piling under the foundations. The combination of these factors suggest the structural performance of the buildings would be below that of a modern building in an earthquake.

In general terms buildings designed and constructed prior to 1976 are likely to be earthquake prone buildings, however to ascertain their level of earthquake resilience a Council or the building owner can carry out an IEP (Initial Evaluation Process) on the building.

### Initial Evaluation Process

The Initial Evaluation Process was developed by the New Zealand Society Of Earthquake Engineers, it is intended as a tool to allow for a more consistent approach to the assessment of the earthquake performance of the many various types of buildings and construction in New Zealand.

The IEP is a very coarse screening tool and is essentially intended to act as a 'first wash' identifying higher risk buildings which merit further investigation (ie those buildings which may potentially be Earthquake-prone).

The IEP considers the various factors which may affect how the building performs in an Earthquake such as;

- Ground and Site Conditions
- Seismicity of the Area
- Age
- Materials

Any Strengthening  
Use and Intended Life  
Size, Shape and Form  
Interaction with Neighbouring Buildings

The results of the IEP Process can be used to:  
Identify buildings that may potentially be Earthquake-prone or otherwise warrant further investigation (ie a detailed assessment)  
Provide a preliminary indication to help an owner prioritise how they further investigate/strengthen their buildings

An IEP should not be relied on to provide an accurate seismic assessment for issues such as lease agreements or the sale and purchase of a property as they are a broad and basic assessment intended as the first stage of the assessment process.

Council uses the Initial Evaluation Process to identify buildings which are potentially earthquake-prone. If you are advised that your building is potentially earthquake-prone by the Council we recommend that you engage an engineer to undertake a detailed assessment.

### Detailed Assessment

A Detailed Assessment is a much more in depth assessment of the building intended to provide a more accurate assessment of seismic performance, and is carried out by an engineer via modelling and calculation.

The detailed assessment is intended to identify the individual primary structural elements, any secondary elements, ground conditions, critical structural weaknesses, and any other influences and gauge their interaction and effect on how the building as a whole will perform and respond in a seismic event.

A detailed assessment will provide an accurate seismic capacity for the building and will provide a basis for an engineer to advise on ways to strengthen the building.

### Notices (Section 124):

Wellington City Council contracts engineers to carry out an IEP for all buildings which qualify for assessment under its Earthquake-prone Building Policy. If a building is identified as 33% or less the building will be listed as Potentially Earthquake-prone.

We will contact the owner of the building and allow them six months to provide further information which may affect the findings of the IEP. A detailed assessment would be recommended at this point.

If the Council receives information this will be reviewed by our contracted engineers, they may have some queries regards the information provided which will need to be resolved with further clarification from the owners engineer.

Once all information has been received and processed, or if no information is received within the required timeframe, a decision will be made as to whether the building should officially be considered Earthquake-prone. At

this stage if a building is found to be 33% or less an Earthquake-prone Building Notice will be issued.

This Notice requires the owners of the building to either strengthen or demolish the building within a set time period of time - either 10, 15 or 20 years under the current policy.

The earthquake-prone building notice is an A4 yellow laminated notice, a copy of the notice must be displayed in a prominent place on the building. Buildings which have a yellow earthquake-prone building notice can still be used and occupied for their current lawful use during the timeframe allowed for by the notice.

### Heritage and earthquake prone building issues

Conservation of our Heritage is another important factor when looking at earthquake prone buildings, and why is heritage important:

Heritage is not only a part of our inheritance from the past; it provides the basis for our understanding of sense of place and cultural identity.

Those places which people value for social and cultural reasons provide links through time, and an understanding of change.

An understanding of change helps people to come to terms with changing patterns of living and habitation and acceptance of the need to be able to adapt to new developments and enjoy the benefits of new directions whilst also enjoying the inheritance of the past.

Some people see our heritage buildings as time capsules of our past and give us insight into our development as a nation.

Earthquake prone they may be but we should protect and preserve the best examples of our heritage buildings.

If we take Napier as an example, the "Art Deco" architecture of that city much of it built after the 1931 Hawkes Bay earthquake defines that city, its character, heritage and development all fiercely protected.

Protection and management of heritage buildings

In New Zealand, there are two ways that heritage buildings can be identified to enable management and/or protection:

1. They can be included in a heritage building schedule to the district plan
2. They can be included on the NZ Historic Places Trust Register of Historic Places, Historic Areas, Wahi Tapu, or Wahi Tapu Areas.

Only listing on the district plan provides for protection mechanisms. Registration of a building with the NZHPT does not provide protection.

### District Plan scheduling:

The Wellington City Council has a district plan heritage schedule that has five parts. They are: Heritage Buildings, Heritage Objects, Heritage Areas, Sites of Significance to Maori and Heritage Trees.

The district plan provides policies and rules for protection and management of listed places. Listing of heritage buildings does not generally include the interior of a building and only a few outstanding heritage interiors are subject to the protective provisions of the Wellington district plan.

In order for council to manage changes to listed heritage places, before any additions or alterations can be made, proposals must be assessed by council officers. If the additions and/or alterations will alter the exterior of a listed place a resource consent application may be required.

If like for like materials and design are being used during repairs and maintenance, resource consent is not required. However, as for all buildings, a building consent may be required.

Historic Places Register administered by the NZ Historic Places Trust

The Register is an identification and advocacy tool. The effect of registration is as follows:

- it is an information and advocacy tool
- does not equal automatic protection
- does not directly create regulatory consequences or legal obligations on property owners
- does not directly create specific rights or control over property
- can lead to heritage properties being considered for inclusion in district plan heritage schedules – which is the council's decision.

The Register does not in itself prevent places being altered. Councils are required to have regard to the Register when developing Regional and District Plans, and Councils may notify the NZHPT as an affected party to resource consent applications that affect registered places.

Councils must also notify the NZHPT when issuing project information memoranda (PIMs) or building consents where no PIM has been sought. Councils must also notify an applicant of the presence of a council listed or NZHPT registered place when issuing a Project Information Memorandum (PIM) or a Land Information Memoranda (LIM). A LIM is often sought by potential purchasers of a property.

It should show if a property is listed on the district plan or registered by the NZHPT. This means that the applicant will know whether or not a registered site is present before beginning development work.

## New Zealand Metal Roofing and BOINZ Training Partnership

The New Zealand Metal Roofing Manufacturers Inc in conjunction with BOINZ is pleased to offer an informative course about the use of metal roof and wall cladding. The course has been specifically designed for Building Consenting Officials (BCO's) and inspectors to cover aspects of design and installation of plain and painted metal cladding for all buildings. This includes corrugated and trapezoidal profiled metal, self-supporting and fully supported tray and translucent roofing as well as metal tiles.

The course is divided into four modules which follow the New Zealand Building Code; B1, Structure, B2 Durability, E2 External moisture and E3 Internal moisture. The objectives of this course include providing details of structural integrity suitable for the design load likely to be experienced on any site, conditions of compatibility and durability when using different metals and materials, weather tightness, and the provision of ventilation to avoid condensation within the roof space. The placing of roof underlay and insulation is considered an important part of roofing.

Information is provided about safety when walking on roofs, testing of metal profiles, different fasteners and fixing methods, roof and wall penetrations and the various modes of failure encountered in practice. Although similar, residential, commercial and industrial buildings have different requirements and these are highlighted. The ultimate objective of the course is to enable BCO's to be able to recognise good trade practice when examining plans and specifications or installations.

References are made to the New Zealand Metal Roofing Manufacturers Code of Practice which can be used as a prescriptive alternative solution and means of compliance with the New Zealand Building Code. Comparisons are drawn between it and the Acceptable solutions to clauses B1, B2, E2, E3 where applicable.

Extensive use is made of illustrations of both good and bad workmanship and the presentation includes a checklist for BCO's when considering compliance of of consents for each of these four clauses of the NZBC.

The course is approximately six hours however time is given for questions and discussion where any queries can be answered.

**See BOINZ training calendar for course dates and locations**



## BUILDING OFFICIALS INSTITUTE OF NEW ZEALAND: TRAINER PROFILE



## ALAN MOULE

BEng (Hons), CMS, MIPENZ,  
CPEng, IntPE, MIFireE, MBOINZ

Alan is recognised as a technical expert in fire and compliance in NZ.

Alan holds a tertiary degree in Fire Engineering, is an International Professional Engineer (IntPE), a Member of the Institute of Professional Engineers NZ, a Chartered Professional Engineer, a Member of the Institute of Fire Engineers, a corporate member of the Fire Protection Association of New Zealand and a Member of the Building Officials Institute of New Zealand.

Alan has a strong design bias and has the ability to view holistic design solutions that ultimately benefit the end user of the building.

Most, if not all, fire engineers and BCA Officers have sought Alan's advice on technical matters relating to fire safety and compliance.

### **Alan Moule is a fully qualified, highly experienced fire engineer with an expert knowledge of the fire engineering and consenting requirements for New Zealand.**

Alan has been involved with fire and fire safety for more than 25 years. He has operated in both the UK and in NZ. In New Zealand he was previously employed by the Department of Building and Housing, as a specialist Fire Advisor. He was responsible for providing specialist input for:

- The maintenance of the Compliance Document for the Fire Safety Clauses of the New Zealand Building Code, and the associated Regulations
- The Building Code Review
- The development of Regulations, Compliance Schedules for "Specified Systems" and supporting documentation
- Responding as the Department's principal point of contact for fire engineers, the NZ Fire service and Building Consent Authorities within New Zealand
- Providing education seminars and lectures to fire engineers, the NZ Fire Service, and to Building Consent Authority staff
- Expert advice for the Determinations functions of the Department
- Representing the Department on Standards development for both NZ and International Standards
- Co authored several national and international documents including:
  - o The International Fire Engineering Guidelines
  - o The Fire Engineering Design Guide
  - o The International Association of Cold Stone Contractors guide
  - o The IPENZ practice note on Cold Stone Engineering in NZ

Alan is the trainer for our New Fire Documents course, Code Clause C Protection from fire – see following page for further details and course dates

# 2013 TRAINING CALENDAR

MARCH		
4, 5	Leadership	Wellington
7, 8	Fire Documents	Wellington
11, 12, 13	Building Controls	Christchurch
13	Timber Truss & Wall Frame 'Skeleton' - Load paths and fixings seminar	Greymouth
15	Timber Truss & Wall Frame 'Skeleton' - Load paths and fixings seminar	Nelson
14, 15	E2 Weathertightness	Christchurch
22	Communication & Ethics	Wellington
TBC	NZS 3604	Wellington
TBC	NZ Metal Roof and Wall Cladding	Auckland
APRIL		
8,9	E2 Weathertightness	Auckland
10, 11	Plan Processing	Auckland
15, 16, 17	Complex Plumbing	Wellington
16	Timber Truss & Wall Frame 'Skeleton' - Load paths and fixings seminar	Wellington
17	Timber Truss & Wall Frame 'Skeleton' - Load paths and fixings seminar	Palmerston North
29, 30	Site Inspection	Wellington
TBC	NZS 3604	Auckland
MAY		
8, 9, 10	Building Controls	Auckland
27,28,29,30,31	Plumbing Inspection	Auckland
TBC	NZS 3604	Christchurch
JUNE		
5	Communication & Ethics	Auckland
10, 11	Leadership	Auckland
19, 20	Fire Documents	Christchurch
19, 20	E2 Weathertightness	Wellington
TBC	NZS 3604	Wellington
JULY		
2,3	Plan Processing	Christchurch
15, 16, 17	Building Controls	Wellington
17	Timber Truss & Wall Frame 'Skeleton' - Load paths and fixings seminar	New Plymouth
18, 19	Site Inspection	Auckland
TBC	NZS 3604	Auckland
AUGUST		
6, 7	E2 Weathertightness	Christchurch
20, 21	Fire Documents	Auckland
TBC	NZS 3604	Christchurch
TBC	NZ Metal Roof and Wall Cladding	Christchurch
21	Timber Truss & Wall Frame 'Skeleton' - Load paths and fixings seminar	Tauranga

Please note that these dates, locations and courses may change

## NEW - FIRE DOCUMENTS:

### CODE CLAUSE C PROTECTION FROM FIRE (SMALL BUILDINGS) C/AS1 – C/AS7 COURSE

The Institute is pleased to bring to our members and clients our new two day

#### FIRE DOCUMENTS: CODE CLAUSE C PROTECTION FROM FIRE (SMALL BUILDINGS) C/AS1 – C/AS7 Course.

This high quality, Diploma recognised course will bring those with a desire and need for exposure in this area up to speed rapidly.

The Institute's drive to bring consistency to our members is mirrored by Alan Moule, through his time spent assisting with the development of the materials for the CODE CLAUSE C PROTECTION FROM FIRE UPDATE TRAINING and the Institute's FIRE DOCUMENTS: CODE CLAUSE C PROTECTION FROM FIRE (SMALL BUILDINGS) C/AS1 – C/AS7 Course. These courses have been designed to develop a consistent knowledge base in regards to the Fire Documents, with training coming from the most knowledgeable in the industry.

This is further highlighted by his commitment to contract to IPENZ to deliver this consistency.

Alan's qualifications, as a chartered Professional Fire Engineer ensures any questions directed to him during any training session are answered competently, clearly and in a manner which ensures a strong understanding of the subject material.

**NEXT COURSE: WELLINGTON, 27th - 28th NOVEMBER - For more details and to register please visit [www.trainingacademy.org.nz](http://www.trainingacademy.org.nz) or email [events@boinz.org.nz](mailto:events@boinz.org.nz)**



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# BUILDING OFFICIALS INSTITUTE OF NEW ZEALAND

## 2013 CONFERENCE

ROTORUA ENERGY EVENTS CENTRE

12<sup>th</sup> – 15<sup>th</sup> MAY 2013



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