straight up

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Building Officials Institute of NZ

BUILDING OFFICIALS INSTITUTE OF NZ

47TH ANNUAL CONFERENCE AND EXPO 2014

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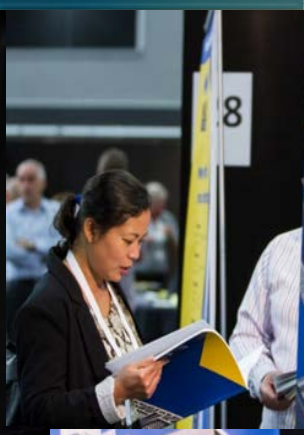






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IN THIS ISSUE

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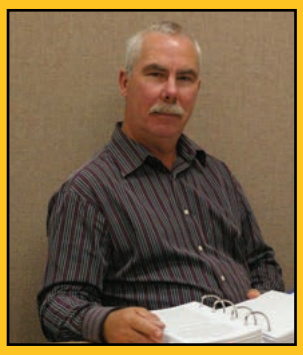


From the President

The last 12 months has really been a year of milestones for the Institute. Your board has maintained focus on the key objectives we set nearly 2 years ago and that included the areas of bringing the organisation back to a financially stable position and ensuring we had the ability to reinvest in priorities to make our members successful.

I can tell you that our financial position is now very stable and we have met our financial objectives ahead of our projected timeframes.

Our aim to provide training to underpin the needs of our members is something we are very proud of with the feedback from attendees supporting the value of these courses. I can say from the feedback I have received that the quality of the courses and presenters is of the highest standard and I welcome members to discuss your needs with the National office team as they will work with you to ensure you are well served.

Our aim to advocate the needs of our members at the highest levels has been very successful with a number of key relationships developed, including the inclusion of the Institute around the table of a number of partnering organisations, and the Institute being afforded the opportunity to feedback to key Government departments.

The recent place on the board of ACRS that we advised at our last conference awards evening is but one example of the influence and standing that the Institute has gained through the last few years. All of these associations will allow the Institute to influence the quality of the built environment in the coming years.

2014 is going to bring a new set of challenges with changes to legislation including risk based consenting and earthquake prone buildings. We are all aware that the challenges for the Canterbury rebuild are going to have a major affect on the current pool of qualified BCO's. Already we are seeing a huge recruitment drive by Christchurch who desperately need qualified people to assist in the rebuild. As an organisation we need to ensure we are able to assist Christchurch but continue to meet the needs of our other members including BCA's that will need to be adequately resourced as building activity inevitably increases. With the present housing shortage there is going to be a greater demand for our skilled people in the very near future.

I want to acknowledge and thank all of the people who work to meet your needs and ultimately improve the quality of the built environment. These people include your board members, branch chairs, secretaries and executive members and the staff in the Wellington office. Without the dedication and commitment displayed by these people you would not have an Institute that supports you.

The festive season is nearly upon us and it is important to ensure you take some time out. I wish you all a very safe and enjoyable break; have a great Christmas and a happy New Year.

Phil Saunders
President

Merry Christmas and a Happy New Year from BOINZ National Office Staff!

Left – Right, Victoria Purdie, Michelle Te Ohaere, Louise Townsend, Aldinna Ali, Nick Hill

Board Elections: 2014 – 2015 Term

By the 27th January 2014 a Call for Nominations for potential Board members for the 2014/2015 term will be sent via email communication to all members (please ensure you advise National Office on office@boinz.org.nz if your contact details have changed).

Over the last four years your board has committed the Institute to a rigorous strategic plan which has positioned your organisation to move forward and add significant member value over the coming years ahead.

As members of the Institute you now have the opportunity to stand for Board election in 2014. Being part of the board allows one to set the strategic direction of the Institute during a term. Board members have a responsibility to work for the benefit of all members, irrespective of where they reside, or their particular disciplines. Whether you are standing for the Board, or voting in the elections, I encourage you to embrace the electoral process. Diarise the final day for voting in your calendar now (see timelines below).

Any financial member of the Institute is eligible to nominate themselves for a Board position. Of course a decision to do so should not be made lightly and you need to be aware there is a level of commitment which includes attendance at Board meetings/Conferences/ Local Branch meetings/teleconference calls/ involvement in advisory groups etc.

Those wishing to put themselves forward must firstly complete the official nomination form, which will be sent out with the Call for Nominations early next year and also provide a CV along with a personal profile and photograph, which will be made available to the whole membership, to assist in the voting process.

During my time as President I have been encouraged by the calibre of my peers and their ability to rise to the challenges that have recently faced our sector. I am convinced the direction of the Institute and the qualification pathway for building control officials that has been established under Regulation 18 is the correct one and I am sure as time marches on the benefits will flow significantly in our direction. I believe we will soon see individuals wanting to join our sector, the general public supporting the goodwork that we do on their behalf and the building control industry benefitting from our broad knowledge and skill sets.

Finally I would like to take this opportunity to thank all my fellow members, the current board and the management of the Institute for the support you have shown over the last term and I look forward to the incoming board continuing our progress.

Phil Saunders, President

CRITERIA FOR NOMINATIONS TO THE BOARD

THE ROLE OF THE BOARD

The Board is responsible for all matters relating to the successful functioning of the Building Officials' Institute of New Zealand (The Institute). The Board's role is to govern the organisation rather than manage it. The Board delegates day to day management to the Chief Executive Officer.
In general, the Board, on behalf of members, is responsible for, and has the authority to determine, all matters relating to the policies, practices, management and operations of the Institute. Without intending to limit the role, the Board's governance responsibilities relate to the following functions:

BOARD FUNCTIONS

1. Establish the Institute's purpose and desirable outcomes.
2. Provide strong governance of the institute as a whole, and to monitor the activities of those entities which it creates.
3. Be fully knowledgeable and aware of sector needs and issues.
4. Liaise with other interested constituencies (both national and international).
5. Appreciate the wider public good focus of the Building Officials' Institute.
6. Give guidance on strategic investment and funding decisions that are made by the Building Officials' Institute of New Zealand.
7. Have an enduring focus on strong fiscal management.
8. Provide leadership to the industry.

GENERAL BOARD MEMBERS QUALITIES

An appropriate set of professional and person skills form the nucleus of an efficient decision making structure for the Institute has been identified. Individual Board members must have personal qualities of:

- Integrity
- Experience
- Wisdom
- Independence of thought
- Strong listening skills
- Strong questioning skills
- big picture vision and strategic thinking capabilities
- Ability to persuade and not dictate
- Enthusiasm and drive
- Impartiality.

PARTICULAR BUILDING OFFICIALS INSTITUTE OF NEW ZEALAND BOARD MEMBER SKILLS REQUIREMENTS INCLUDE:

- Corporate governance
- Finance and accounting
- Research and development experience
- Building control sector experience
- Customer relationship expertise
- Gender balance offering different perspectives
- Contract management experience
- Central government interface experience
- Risk management expertise
- Access to sector contacts and networking skills
- Appreciation of consumer interests
- Awareness of public good elements.

PRIMARY TASKS OF THE BOARD INCLUDE:

- Maximise members interests
- Set strategic direction
- Policy formulation
- Risk Management
- Legislative compliance
- Performance monitoring of Strategic Plan
- Appointment and performance monitoring of the Chief Executive.

BOARDS FUNCTIONING AT PEAK PERFORMANCE ARE CHARACTERISED BY THEIR:

- Commitment to best practice governance principals
- Appreciation of careful stewardship of the members funds
- Understanding of the needs of members
- Understanding the interface between public and private sectors
- Ability to best reflect the needs of a diverse membership
- Commitment to membership accountability
- Commitment to governance transparency
- Skills in strategic thinking
- Cohesive and robust decision making
- Basic financial literacy
- Appreciation of compliance issues
- Commitment to risk management
- Independence.

RESPONSIBILITY

Although Board members will be elected by the Building Official Institute of New Zealand members, their exclusive responsibility lies towards ensuring the overall strategic and operational success of the Institute. Whilst Board members may reflect in discussion views coloured by their experience, their final decision making must reflect exclusively the interests of the whole Institute, not just the jurisdictions or experiences of the Board Members.

Call for Board Nominations *70 days prior to AGM*	27 Jan 2014
Board Nominations Close *50 days prior to AGM*	14 Feb 2014
Ballot Papers sent to members *28 days prior to AGM*	10 Mar 2014
Voting Closes *(Not less than 14 days before AGM)*	24 Mar 2014

President – Phil Saunders

1. **As President, you are nearing the completion of your second term. How has the role affected you personally?**
   It has been privilege to serve the institute in the role as president. It has given me the opportunity to lead a wonderful group of people and contribute towards the success of our great organisation. Personally the role is demanding but very rewarding. There are always many things you want to achieve but from a practical perspective you have to remain focused on the strategy and goals you develop to grow the organisation. I am particularly aware that my time as President began when the Institute was in financial distress and the board had to make some pretty tough decisions. I am proud of the fact that our vision and planning resulted in sound decisions that led to the good position we find ourselves in today. I have thoroughly enjoyed my tenure be it a longer than normal one due to circumstances. I am fortunate that I have an understanding employer and family, a great bunch of board colleagues, a brilliant Chief Executive, National office staff and many members who have all supported me. Thank you to you all.
2. **The Institute has set a goal of professionalising its members. Where do you see the gains the Institute has made in your time as President?**
   The vision and goals we set as a board revolved around core objectives including advocacy for our members. We focused on raising the professional profile of our members and it is necessary to understand the very important work that we all do. BCO's undertake a role that is critical to achieving a healthy and safe built environment and despite what some politicians and others may advocate the role of someone looking over the other guys shoulder is what keeps many people honest. There will never be a time when we are not needed and we are needed more now than ever before. Don't forget that and don't forget you are all absolute professionals.
3. **Are you considering standing again in the 2014 Board elections?**
   No it is time for me to step down as I have completed the work I set out to do. It is important for effective boards to have an agreed succession plan ensuring longer serving members make way for new people who can bring some fresh ideas and skills to the organisation. However it is equally important to ensure we do not lose all of our governance experience and expert knowledge.

Vice President – Stewart Geddes

1. **How do you see the future of the Institute evolving over the next 3 to 4 years?**
   I see the Institute going from strength to strength over the next 3-4 years on the back of the platforms we have recently achieved. The key directions will continue to be around the professionalism of our people and the commitment to quality building outcomes. The Institutes Board recently worked with management to target strategic areas the Institute could play an active and positive role in the support of its members, the BCA community and the wider built environment. I am confident the passion of members for continuing improvement in building control and building surveying in general will see us continue to deliver beyond expectations.
2. **As Chairman of the audit committee, are you comfortable with the financial direction of the Institute?**
   As the chair of the Audit Committee, I am very comfortable with the current financial direction of the Institute. The creation of the Reserve Fund policy has been critical in ensuring the future success of the Institute, ensuring we can address unforeseen issues as they arise and most importantly support the future benefits to members. We have also developed very strict operational and reporting policies to ensure clear levels of accountability, and to ensure the continual growth of the Institute.
3. **Will you be looking to stand in the 2014 Board elections?**
   Yes I will be standing for the Board for the 2014-16 term and hope to be re-elected so I can help achieve some of the goals we have put in place from a Board perspective. I also have personal goals to fore fill over the next two years in helping to grow the Institute.

Ian McCormick

1. **As the Board's most recent elected member, do you now have a different perspective on the value the Institute offers to its members?**
   I must confess that I hadn't appreciated the extent of the Institute's networking with industry bodies, central, local government. I was left impressed by the ability of the Institute to help form and influence the direction of change in our environment.
2. **Do you have a vision for the role of a BCO over the next 10 years?**
   I envisage a more joined-up industry developing, where quality assurance/quality control activities are integrated across the developmental process from initial design to 'key turn.' Increasingly, I see the emphasis of many of our roles to be ensuring quality assurance systems are operating effectively. This will involve input into and sampling of such systems. Thus, I see great opportunities for people with the skills and interests our people have, both within a more traditional regulatory role and within design and construction organizations. The key for us, is ensuring we position ourselves well as an organisation to take advantage of new opportunities as our industry continues to evolve.
3. **Will you be looking to stand in the 2014 Board elections?**
   Yes, I'd like the opportunity to continue to serve.

Kerry Walsh

1. **You have always been a strong supporter of the concept of a well rounded building control surveyor. How successful has the Institute been in developing the skills of BCOs?**
   The Institute has provided the very highest quality training that is specifically designed for BCO's. The courses developed to underpin the National Diplomas in Building Control Surveying are our underpinning theoretical programme. One of the Institute's other key focuses is on providing training that we need, the material that overcomes issues that appear in the market and provides our members with the knowledge and skills to produce the solution. Our relationships with our Premier Partners and key industry associations allow BOINZ to quickly provide these training solutions, many of which appear as short courses or branch presentations. The professionalism of building surveyors/building control officials has dramatically increased in recent years and this is due to the efforts of the Institute—it's members and staff who have had a vision to raise all aspects of our roles at all levels. These initiatives have been member driven on the back of a passion to improve the status and output of building control, so in an effort to continue our progress please let the Institute's office know if there is something that you and your team is needing that we currently don't offer.

2. **As the Board representative on the technical committee for the Institute's Annual Conference and Senior Building Officials Forum, do you see our programme format evolving?**
   The programme will be ever changing and adapting to suit member's needs. No conference or forum will ever be the same! If you want the latest information from the right people then these two events are for you. Future events will feature more members and technical experts sharing their expertise and more technology and product displays.
3. **Will you be looking to stand in the 2014 Board elections?**
   I do intend to stand again as I wish to continue to contribute to the momentum of the Institutes direction, giving more services and support to the members. I have enjoyed being part of a dynamic team and feel I have more to offer.

Peter Laurenson

1. **Having served on the Board for nearly 3 years, Board representation and Board make-up is important. What advice and tips can you offer to those who may consider standing for the elections in 2014?**

- Develop a stance on most things and research those you don't know about. Be prepared to realise that you have to take a global approach to what is best for the whole member group – even if it is different to the point of view you may have personally. A board position provides the opportunity to canvass ideas – and try to reach consensus- but at the end of the day there may still be different views , and you have to exercise your vote as a board member for the benefit of the whole organisation
- You need to be able to think strategically and separate that from the operational decisions. We have a great team at national office which are well led - so you need to understand where their expertise and responsibilities sit, let them get on with the good work and be prepared to provide the strategic environment for advancement of the institute.
- Have an opinion about where the institute should be next year, and in 5 years, and in 15 years, how will we fit in with legislation of the day, how will the skills of our members and the attraction of being in our profession sit on those occasions
- Be prepared to remove your employment hat when making decisions for the institute, but be wise enough to know how those decisions will be viewed by BCAs, Government departments, and other industry professionals.

2. **The Institute is but one part within the Building and Construction chain, how important is the consenting and inspection process to the end user?**

- The role that we do provides value to the building users through our independence, professionalism, and ethos of checking the details. It's highly important that we are not swayed by contractual or financial pressures, especially when this comes to life safety features of buildings.
- Everyone wants the protection of a properly prepared set of plans, which meet at least the minimum code requirements, and have a level of confidence that is the building they end up with. Our value is to be able to look holistically over the group of design and construction professionals, and identify the things people have missed out or done incorrectly because of their potentially narrow view.
- We also need to be careful we are delivering this in an efficient and economical way. I believe we should take a risk management approach to what we currently do – and try to cut out the mundane and be more standardise and efficient across the board – however this does need better legislation and the sharing of responsibility in a legal sense proportionately across the different industry groups.
- Our role is a reasonable cost in the scale of the building project. On world standards we deliver safe innovative dwellings and buildings to work within, in a very fast timeframe, without corruption or interference, and this integrity is valued by building users even if they don't fully understand the components of our role.

3. **Will you be looking to stand in the 2014 Board elections?**

- Yes - I will give it another go. After initially being co-opted to the board (because of my big mouth) I then stood to assist the institute to return to a financially sound position, and to see the introduction of mandatory qualifications followed through on. With those in place, it now becomes about setting the parameters which will give our institute vibrancy into the next generation.
- I am extremely buoyed by the increasing regard for which our institute is held in terms of the respect for our members and the level of consultation we are afforded, and I think now is the time to capitalise on that goodwill.
- A few career highlights for me have come in recent years when I have been representing BOINZ
- Appearing in front of the Royal Commission resulting in the great response and on-going work of our members being recognised in their findings
- Speaking at an Australian Conference for AIBS which was exciting and humbling at the same time.
- Working on submissions and consultations which the institute has provided feedback to government, which has helped shape our changing legislation
- So they say you get more out than you put in – well I am happy to put a whole lot more effort in for another term – and I know it will be rewarding.

Norm Barton

1. **You have been on the Board for 3 terms. Relationships have been a key platform for the Institute over recent times – what are the milestones in this area for you?**

- There have been three key relationship successes over the recent period
- The relationship with Otago Polytechnic developing and getting the qualifications to a point where the vast majority of members felt confident and comfortable about entering the APL programme to achieve the Diploma in Building Control Surveying. Otago Polytechnic the key stakeholder with BOINZ in getting the qualification to a point where Regulation 18 could be met.
- Playing a major logistical role in organising members throughout New Zealand to carry out inspections as part of Operation Suburb after the February 2011 Christchurch Earthquake. The Management team worked very closely with key DBH staff to get hundreds of our members in and out of Christchurch over a very short period to undertake the intensive evaluation of over 70,000 residences
- Continuing to build relationships with our major stakeholders within the wider industry sector to promote professionalism and build quality.

2. **Information to members on industry issues is vital. The Institute has evolved with technology in this area. What are you looking forward to, on behalf of members, in the way they receive information in the future?**
   Information is key and is particularly vital to our members. Information demands continue to press society and the Institute has responded with a website and database upgrade which will be in place in 2014.
3. **Will you be looking to stand in the 2014 Board elections?**
   Yes I have decided to put my name forward for the 2014 elections

PrefabNZ Top 5

Interactive 3D models

A new platform has been developed that allows designers to share interactive 3D models online. Sketchfab aims to do for 3D fabrication what YouTube has done for video, enabling designers to publish, share and embed their files in a visual and interactive way on any website – Revolutionary!

(image courtesy of Sketchfab) http://sketchfab.com/

If you have ever wondered what it would be like living in a tree, check out the 'fab tree hab' by terreform one. This amazing structure is a living graft prefab and was conceived as a dwelling to replace the some outdated architectural design solutions. Well known for generating adaptive structural forms that respond to our global, social and environmental changes, see terreform one's here. http://www.designboom.com/architecture/fab-tree-hab-is-a-living-graft-prefab-structure-by-terreform-one/

Moveable rooms are the way of the future, and PrefabNZ member SPACEMovables describe their well-designed buildings as microarchitecture. Check out their video of a MultiSPACE™ complex coming together in the Wakatipu basin. http://www.youtube.com/watch?v=zk2S4ux3CWQ

When it comes to designing living spaces, thinking outside the square can be innovative, flexible and a little quirky. Take a look at these prefab living spaces which take it to the extreme (Courtesy of Steve Swindells) http://www.pinterest.com/steveswindells/quirky-living-spaces/

The energy efficient modules of the Porch House by Lake|Flato form part of a fully customisable prefab housing system and are factory built. They are designed to connect with porches to create a range of larger living spaces. http://inhabitat.com/lakeflato-enters-the-prefab-market-with-their-breezy-leed-porch-house/lake-flato-porch-house-5/?extend=1

Institute Congratulates Christchurch City Council General Manager Appointment

Left, Peter Sparrow (Christchurch City Councils' newly appointed building control and rebuild general manager) with Nick Hill (Chief Executive, Building Officials Institute of New Zealand).

Peter Sparrow, a senior manager with the Ministry of Business, Innovation and Employment (MBIE) and BOINZ member, has been appointed to run the Christchurch City Council's troubled consenting department. Peter Sparrow will become the council's new building control and rebuild general manager early in the new year, acting council chief executive Jane Parfitt said yesterday. "The appointment is a significant milestone in the progress of the Building Consent Action Plan. The position establishes a single point of accountability and leadership for the council's building control functions, including building consents, inspections and accreditation". Sparrow was, until recently, MBIE's consent system capability manager. Since the middle of the year he has been acting as a senior advisor to Doug Martin, the Crown manager appointed by the Government to help the council through its consenting crisis. Martin said the appointment of Sparrow meant the council could be more confident about regaining and retaining accreditation and of addressing the issues relating to processing times for building consents. Sparrow will take up his new position on January 6. "The Institute looks forward to working constructively with Peter and his team as they rebuild under the Crown Management direction and into the future" - Nick Hill, Chief Executive, Building Officials Institute of NZ.

(Information from The Press, Lois Cairns).

Innovation in a recovery

By Malcolm MacMillan, Earthquake Recovery Operations Manager.

Ministry of Business Innovation & Employment

Born out of the devastation of the Christchurch earthquakes have emerged some innovative solutions to new problems. It is the old Kiwi ingenuity in a modern and sophisticated form. This article seeks to profile several examples of how new ways of thinking have solved some seemingly intractable problems.

HOUSING JACKING SYSTEM

Take for example the problem posed when you have a house superstructure which is perfectly repairable but the foundations are damaged beyond repair. There are still hundreds of houses like this in Christchurch. Normally the response would be full demolition of the house. But a new and clever house jacking system, developed in response to this situation, enables many such houses to be saved.

Unique features of this system include the height to which it can raise a house (3m) with a clear span of the entire length of the house underneath. This enables heavy machinery to operate underneath to demolish and rebuild the foundations

Time means money. Speed is another feature of this system, taking only days to install and lift a house and days to lower and dismantle the system and be gone. The unobstructed space underneath allows for a fast foundation rebuild. This house jacking system will be used to repair a number of the damaged houses in Christchurch. There are also many thousands needing to be entirely rebuilt. These will need to be as resilient as possible to future earthquakes. Again innovative thinking has come up with a solution to helping future proof this new building stock.

RESILIENT FOUNDATION SYSTEM

A domestic concrete manufacturing company has come up with a clever foundation solution for parts of Christchurch now known to be more at risk of liquefaction in a future earthquake. The foundation is called a TC3 raft, as it sits on top of the ground rather than in it, and what's particularly innovative about this foundation is that it has jacks built into the foundation slab

prior to pouring. These are imbedded into the slab so that they are available in future should the foundation ever slump in another earthquake and need re-levelling. The in-built jacks can be easily accessed by just lifting the carpet and using a hand drill to raise the jacks and re-level the house, all with the assistance of an engineer's specifications. Video clip on line at: http://cera.govt.nz/video/ribraft-tc3-foundation-solution

The house jacking and this foundation jacking solution both have the advantage of saving time and money. Both enable the household to be back in their repaired home sooner than if they were using more traditional building methods. The February 2011 earthquake effectively destroyed the central city and its retail precinct. A city in ruins, it had the atmosphere of a graveyard. To inject life back into the central city before the bleakness started to dominate became a matter of urgency. Retail business also needed to get back on its feet as quickly as possible for their economic survival. Come October 2011 a temporary retail precinct had been constructed and opened for business. The versatility and simplicity of shipping containers and the speed with which they could be altered and assembled proved to be the answer.

RECYCLED FLAT PACK HOUSES

The earthquakes left large areas of Christchurch unfit for future residential development. Many thousands of houses were damaged beyond repair and others now sat on poor quality and often quite damaged land. -The Government designated these areas ('red zones') as unfit for future building development and uneconomic to repair. Voluntary buy-out offers were made, by Government, to those households wishing to leave, and where they were unable to achieve a better deal with their private insurers. Approximately 8,000 houses were within the red zones and have almost all been abandoned.

The result: amongst the thousands of damaged houses whose fate can only be demolition stand several hundred houses capable of being salvaged and re-used. This situation has resulted in several entrepreneurial business ventures aimed at recycling red zone houses. One of these businesses deconstructs and 'flat packs' the houses into containers before relocating and reconstructing them on new sites around the country. They choose fairly new houses which meet current building code requirements and look to reuse as many of the fixtures as possible. A finished reconstructed house costs less and has the pristine appearance of a new one, and comes with the environmental benefits achieved by recycling the building materials. Video clip on line at: http://cera.govt.nz/video/flat-packing-homes

PRE-FABRICATED SHOW HOME VILLAGE

The vast number of new houses required as part of the recovery has presented an opportunity to a group of prefabricated housing manufacturers. Their aim is to present the advantages of prefabricated housing to those needing a new house. They have done this by establishing a show home village consisting of prefabricated houses of varying designs. The houses on display are all architecturally designed, of high quality, are energy efficient and because of their prefabricated nature, are usually faster to build than a traditional home. So they present an additional option to the Christchurch home buyer, one which they might not otherwise have considered. More info on line at: http://www.prefabnz.com/Hive/

Andrew Minturn
Senior Advisor to the Crown Manager,
Senior Operational Policy Advisor, MBIE

There is a definite sense of optimism in the Christchurch air right now. Things are being done, people are positive, and change is happening. Part of this change is the way the building consents process works. The time for action is now, and consequently, we are gearing up to be faster-paced, more efficient, more effective at what we do, we are putting the customer first, and together we are ensuring that the buildings in this city are fit for our future.

Come and make sure Christchurch is built for the future.

buildforthefuture.co.nz

Christchurch City Council

The Centre for Best Practice Building Control

This online centre was established to fill an international vacuum. Currently there is no international online library that showcases global best practice approaches to building control. There is a plethora of wonderful building control related research on the planet that has simply been relegated to the vaults of obscurity after the material is published in obscure academic journals. Many erudite PhD papers fail to get international recognition, yet they often encompass game changing and cathartic insights.

The net effect of this is that valuable research is lost, it is left in the silo of anonymity. Wonderful papers are delivered at seminal conferences, the paper is presented, the audience applauds and then a paper`s shelf life prematurely "morphs" into oblivion. A great pity when one considers the amount of reinventing the research wheel that goes on round the planet. The Centre will in the fullness of time provide an international resource that provides researchers and building control innovators with a place to release their material in the international domain. Law reformers, policy makers and researchers will then be able to access the material at no cost.

The Centre already has a LinkedIn community with over 300 building sector professors from all over the planet, so material which is published on the library will be available to a very influential international audience.

The material will also in the fullness of time be a first port of call facility for jurisdictions intent on carrying out best practice building control law reform.

The CBPBC`s board will also encourage collaborations from time to time from within its community to develop international best practice building control templates, be it regulatory ingredients for best practice building control Acts, best practice dispute resolution systems or best practice codification. The Centre will also be a conduit for liaison with governments and building controllers.

The chair of the board is Conjoint Professor Kim Lovegrove FAIB who is a partner in NZ/ Australian law firm Lovegrove Solicitors.

The board members comprise eminent persons from construction academia and senior representatives in the building industry. The secretariat is managed by Lovegrove Solicitors.

The Centre actively encourages building control researchers, experts and those who have delivered papers on point to submit papers for building up the library. Understand however that the material is royalty free as it will find its way into the international domain as a free resource for the building control community. The website is www.centre-for-best-practice-building-control.com

Lovegrove Solicitors

Professor Kim Lovegrove FAIB will be speaking at the Institute's 47th Annual Conference and Expo, 6-9 April 2014.

LOCAL COUNCIL NEWS

Consent processing streamlined

By adopting the latest technology, the Ashburton District Council's building consent process is becoming a slick, streamlined operation.

In October, the average time taken to process a consent was slashed by six days and that's thanks to the move to fully computerise the consent process, says council building services manager Michael Wong.

It wasn't all plain sailing from day one, however.

"The first month we fully used the new processing approach was September and we had a few teething problems to iron out," he said.

Further refinements to the process and staff having a better understanding of the new approach saw a big reduction in time in October.

For the first six months of the year, the average time taken to process a building consent was over 16 days.

Mr Wong said he was delighted with the results and he believes the changes will make a significant improvement in the service the building team delivers.

"Obviously every month is different in terms of the number of consents we process and the complexity of those consents but we have definitely locked in a significant improvement in service for our community," he said.

The council's next goal is to have all building consents applications processed within the 20 working day legal timeframe.

The only consents issued in September and October that took longer than 20 days to process were ones that were processed earlier in the year but only paid for and issued in the last two months, Mr Wong said.

"Once we have the last of the older consents issued and out of the system we are confident we will consistently meet the target."

The change in processing has come at a time when building consent numbers remaining close to historic highs for the year.

Article published from Ashburton Guardian (Editor – Coen Lammers).

Back row: David Donaldson (Building Official), Kelvin Lysaght (Building Official), Jim Lockett (Building Official), Patrick Ardagh (Building Official), Michael Wong (Building Services Manager)

Front row: Rachel Alridge (Technical Officer), Leanne Copland (Systems Officer), Julie Cumberland (Systems Officer), Danielle Temple (Building Systems Administrator)

The Pitfalls Of Relying On Foreign Property Inspection Membership Or Accreditation.

An Article By Sarah Symon, Director, Realsure Ltd

From time to time overseas "membership or accreditation" to foreign organisations pop up in the NZ property inspection industry, mostly from the United States or Australia.

A fundamental pitfall of using a foreign organisation is that the requirements for inspections do not relate to the NZ Standard for Property inspections (NZS4306:2005) or the relevant knowledge and expertise required regarding NZ construction and issues.

Accordingly, being certified to inspect houses in America or accredited to inspect houses in Australia is great if you are inspecting properties in America and Australia, but not particularly useful when you are required to inspect houses in NZ in accordance with the NZ Standard. In fact, it could be unadvisable in today's litigious environment.

To understand the pitfalls of working with a foreign system, a review and understanding of what has happened in the NZ property inspection industry over the past decade is required.

Back in 2002 there was no NZ Standard for property inspections. The industry was clearly in its fledgling stages and pre-purchase inspections were not considered common.

Justice Heath, in Sunset Terraces , said when dismissing an argument that the purchasers had been contributory negligent for not obtaining a pre-purchase inspection:

To my knowledge there has never been an expectation in New Zealand (contrary to the English position) of a potential homeowner commissioning a report from an expert to establish that a dwelling is soundly constructed.

In Byron Avenue Justice Venning made similar findings in relation to a 2002 purchase.

However, 2002 saw the beginning of the massive change the property inspection industry in NZ is now in the midst of. The release of the 2002 Hunn report brought about a new awareness of the "leaky building Syndrome". BRANZ Bulletins on pre-purchase inspections and Weathertightness, and Weathertightness Identification of Risk provided new industry information for inspecting.

2005 saw the introduction of the New Zealand Residential Property Inspection Standard: NZS 4306:2005. The foreword succinctly says it all:

In most instances, the sale and/or purchase of residential property is an important decision and should be contemplated only in the knowledge of the circumstances surrounding the property. In order for these decisions to be regarded as informed, completely independent and objective advice is often required.

It is intended that the Standard will also deliver the following public good:

1. Give credibility to the property inspection sector by:
2. Setting levels of competence;
3. Maintaining nationwide consistency.
4. Benefit all parties with an interest in the property;
5. Identify deferred maintenance issues as well as other defects.

A Consumer New Zealand investigation released in August 2006 found the property inspection industry had not really improved much, if at all, and a call went out for improvement. At that time the Department of Building and Housing indicated they would not look to regulate the industry, rather the industry be self-regulated.

A special interest group was set up resulting in the 2007 self-regulatory body for the industry – the Building Officials Institute of New Zealand, Accredited Building Surveyors Programme.

Accreditation is not a membership, rather it is a process whereby the accredited individual establishes and demonstrates that they are compliant with the Inspection Standard (NZS4306:2005) and have the knowledge, ethics and experience to undertake property inspections. Consequently, the title of house inspector is replaced with Accredited Building Surveyor.

It could be reasonably argued that it was the Weathertightness failure debacle that instigated and drove the change in the inspection industry, as vast sums of money were channelled into researching the why and how so many NZ homes failed. Recognition of the impact of housing on the occupant's health funded further research into the condition and performance of NZ housing. The government drive to build homes right the first time resulted in further funding into the quality and performance of NZ housing; and more recently, a lot of research has been undertaken following the devastating Christchurch and lesser Wellington earthquakes.

There is now a huge amount of qualified industry documentation about the quality and performance of NZ housing. Invaluable information directly impacting how we inspect homes is now readily available, such as what details can cause failure, indicators of issues, indicators affecting performance. There is an incredible amount of information that was never available before. This information along with the introduction of the NZ Standard has completely changed the set of skills and knowledge specific to NZ housing that a house inspector must have.

Recognition of the introduction of the NZ Standard and changes in the inspection industry also mean the expectations of the house inspector have

changed significantly as evidenced in the recent Hepburn case.

In 2013, the NZ Standard received judicial recognition in Hepburn v Cunningham . At paragraph [98] of the decision, Justice Williams says:

While it is never the case that an industry standard or practice would automatically become the legal standard for litigation purposes, the Standard is nonetheless to be given considerable weight in establishing the content of an inspector's legal duties.

It was the subject of wide discussion and consultation within the industry and, given the committee's broad representation, it was reflective of both the state of the industry knowledge in 2005 and a broad consensus on what kind of performance

ACCREDITED BUILDING SURVEYORS PROGRAMME

Building Officials Institute of NZ
ACCREDITED BUILDING SURVEYORS

The Institute's Accredited Building Surveyors programme is being undertaken to build consumer confidence and awareness of the importance of quality Building Surveyor work being undertaken within New Zealand; and to strengthen and enhance the profession.

Whether a homebuyer, seller, real estate agent, broker or anyone connected with the sector, they will recognise the value in working with an Accredited Building Surveyor around the country.

The programme will also benefit the individual accredited by this scheme as accreditation is the commencement point of a Quality Assurance programme. This establishes and demonstrates that the accredited individual has the knowledge, ethics and experience to set them apart within the Building Surveyor sector. The individual will carry an accreditation card that will demonstrate their commitment to the highest standard of work ethic and a dedication to professional improvement that will lift the profile and image of Building Surveyors in New Zealand.

ACCREDITATION

There is a NZ Standard for Property Inspections, compliance is not compulsory.

The Accredited Building Surveyors programme was developed and launched in 2007 as a result of an awareness of the general poor quality of pre-purchase property inspections in New Zealand, confirmed by a Consumer NZ survey in 2006. As an unregulated industry with no industry body policing the performance of the individual inspector, consumers were reliant on self-proclaimed expertise.

The Accreditation Programme's purpose is to regulate and educate a poorly performing industry and protect the consumer from making property decisions based on sub-standard information. It is committed to building consumer confidence and awareness of the importance of quality Building Surveyor work being undertaken within New Zealand; and to strengthen and enhance the property inspection profession.

Accreditation is not a membership, rather it is a process whereby the accredited individual establishes and demonstrates that they are compliant with the Inspection Standard (NZS4306:2005) and has the knowledge, ethics and experience to undertake property inspections. Accreditation sets the Surveyor apart in an otherwise unregulated property inspection sector. Obtaining accreditation demonstrates the building surveyors commitment to the highest standard of work ethic and competency and a dedication to ongoing professional improvement that lifts the profile and image of Building Surveyors in New Zealand.

Home buyers, sellers, real estate agents, lenders, solicitors, and other professionals aware of the disparities within the inspection sector recognise the value in working with an Accredited Building Surveyor, an Industry assessed property inspection expert.

WHY BECOME AN ACCREDITED BUILDING SURVEYOR?

Self proclaimed or industry proclaimed inspection expert - which is best for you and your business

Accreditation is not a membership, it is an accreditation process to the NZ Property Inspection Standard NZS4306:2005.

The Building Officials Institute of New Zealand Accreditation programme is formal industry recognition of the professional ability, education and standard of competence and compliance with the NZ Property Inspection Standard, which is required to undertake building surveying inspections and reporting, also known as property inspections or building reports. Once accredited you will have undergone a stringent assessment procedure and will have successfully obtained accreditation as set out in the programme, which you can use to differentiate yourself from those unable or unwilling to obtain. Access to ongoing training in the form of seminars and higher learning and a network of like-minded operators will become available to you. The accreditation process requires an annual re-accreditation and is managed by the Building Surveyors Accreditation Division (also referred to as the National Accreditation Division) of the Building Officials Institute of New Zealand.

Accreditation does not preclude membership from other organisations, however BOINZ Accreditation offers the only organisation where you know your fellow inspectors have been individually and annually assessed to ensure they meet the requirements of the inspection standard.

This process does not contravene the Privacy Act.

GIB® Information Bulletin
Issue Date: September 2013

Length of GIB EzyBrace® Elements

GIB EzyBrace® elements with an 'H' extension (requiring special panel hold-down fixings) can be used when the dimension 'L' as illustrated is 400mm or more.

'H' type GIB EzyBrace® elements are identified by GIB® specification numbers GSP-H, BL1-H, BLG-H and BLP-H.

The length of an 'H' type element is not only determined by the sheet material, but also by the placement of the hold-down fixings.

Hold-down fixings cannot be placed closer together than what is shown for the standard panel in figure 1.

Hold-down fixings can be spaced further apart under windows provided sill trimmers are connected to the bracing panel using 8/90mm gun nails.

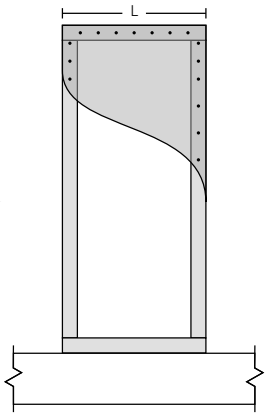
Spike opening trimmers to main framing using a minimum of 2/90mm gun nails at 600mm centres. Lintel straps (where required for wind uplift) should be checked in and be located away from the bracing element fasteners.

The length of GIB EzyBrace® elements with an 'N' extension (requiring standard NZS3604:2011 plate connections) can be taken as the full frame length measured from the outside of the end-stud to the opening face as illustrated.

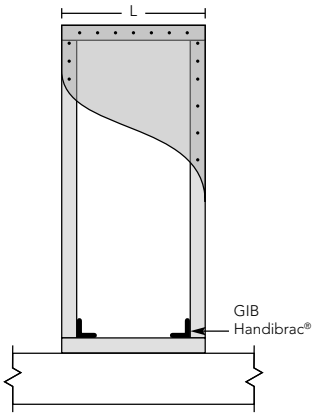
Perimeter bracing fixing for linings of both 'H' and 'N' type elements is along the top and bottom plates, end stud, and trimming stud immediately adjacent to the opening as indicated.

Fastener spacings and diagram scales shown in Figures 1, 2, 3 & 4 are indicative only. Refer to GIB EzyBrace® Systems 2011 for construction details.

FIGURE 1

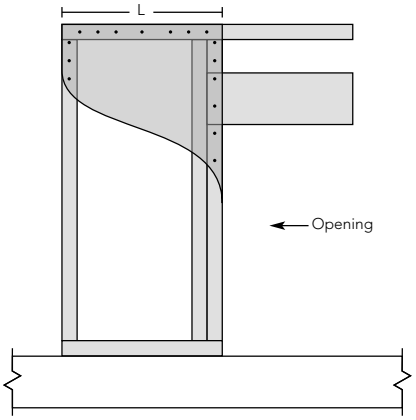


GS1-N, GS2-N Elements

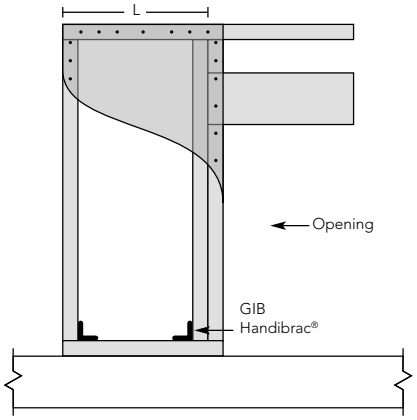


'H' type elements with specific hold downs

FIGURE 2

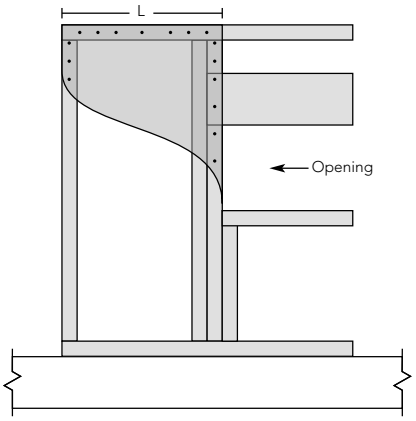


GS1-N, GS2-N Elements

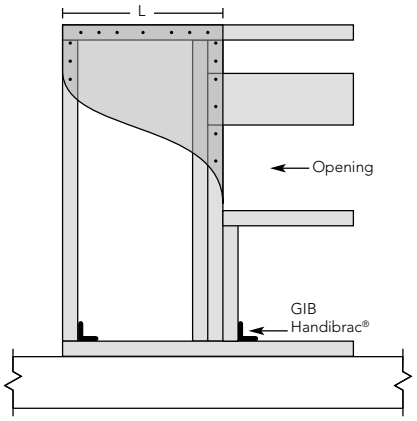


'H' type elements with specific hold downs

FIGURE 3

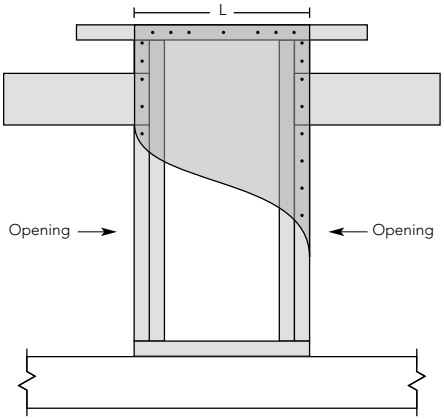


GS1-N, GS2-N Elements

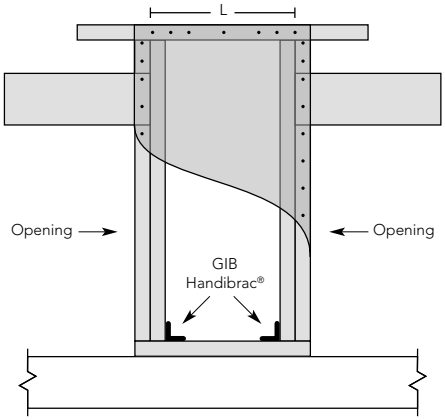


'H' type elements with specific hold downs

FIGURE 4



GS1-N, GS2-N Elements



'H' type elements with specific hold downs

GIB® Information Bulletin
Length of GIB EzyBrace® Elements

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MiTek creates BIL 1 compliant on-line shed design service.

From the Chatham Islands to Kaitaia new shed designs have now been supplied using MiTek's on-line shed design service to Merchants. Maintaining strict design guide lines and compliance for Building Importance level 1 structures is the technical objective which provides confidence for Council compliance and inspection teams.

Wind and earthquake loads are significantly reduced on Importance Level 1 buildings in comparison to the Building Importance Level 2 structuresDesign efficencies can be gained on BIL1 structures by carrying out specific engineering design based on NZS3603 rather than following NZS3604. A subject covered for the institute in MiTek 'Skeleton' courses.

In recent years while residential construction has been experiencing a significant national down turn the MiTek Farm Building Design on-line service went from strength to strength. MiTek has always offered builders supply merchants specialised assistance in farm shed design from its days of 1-off designs in the South Island where snow loads are still an issue today. The new generation of designs allows their merchant stockists to compete strongly within the rural timber based building supply market.

The MiTek dedicated design team operates from the Christchurch office to offer the merchant client base an efficient internet design service. This incorporates a preliminary option for quoting purposes through to a full design providing a complete solution for standard lean-to buildings, pole/truss, gable end and American-style sheds.

Once the desired shed configuration has been established in template form with the merchant client MiTek applies structural engineering. From this an accurate design can be supplied on-line for pricing and customer approval with a fullset of CAD drawings showing building elevations. This enables the merchant to price the building and liaise with the owner to finalise the design.

Once the process of pricing and client acceptance has been completed MiTek will then prepare a final set of CAD designs, PS1 and a design certificate to enable the job to be lodged with Council for building consent.

Since implementing the on-line service MiTek has experienced huge growth as a recognised source of competitive timber based farm and rural building designs. Access to the service is strictly controlled and whether it's a 2 bay shed or the largest goat shed in the southern hemisphere the same attention to detail is diligently applied to ensure structural compliance with NZS3603 while providing the end user with the most efficient design for BIL1 structures .

Graham Hunt, Mitek New Zealand Ltd

MiTek New Zealand is a Gold Premier Partner of BOINZ.

Building Controls in New Zealand

Article written by Ray Lichtwark, Certified Builder.

The majority of BOINZ members will have a good working knowledge of the current Act's of Parliament and Regulations that provide the legal controls for all construction work in NZ. Also most will have a reasonable knowledge of the history of the legal controls for construction in New Zealand from say 1945 and to the introduction of the 1991 Building Act and Regulations.

The 1991 Act was the result of Parliament seeing a need to have a one stop shop for Building control law and to "modernize" and to "simplify" legal controls. Various discussions on type law and controls had taken place since the 1970s; the result was the 1991 Building Act and Regulations.

The changes made in the NZ 2004 Building Act were as a direct reaction to particularly poor outcomes.

In the following article I are not commenting directly on the wording or format of the Building Act but on some of the outcomes that are a result of the way in which it is administered and in comparison with the administration of the building control law of countries similar to NZ especially Australia.

There are not many differences between our Building Act and Regulations and to Australia State law. The main difference is that when they introduced a "Building Control Acts" they included a licensing regime as part of their Act's.

The reality of administering any Act of Parliament is that it may be more difficult than expected to do so and produce outcomes that were never considered when drafting a particular Bill, despite the purpose intended by Parliament

As most members will be employed on wages or salary and therefore will not be able to directly criticise the Building Act and Regulation. They may be asked to comment on proposed changes but often these seem to be such a format, such as a multi choice questionnaire that either supports or ejects the proposed change that little practical discussion of problems takes place.

In this article I make the following comments relating the administration of the building controls and to be a little provocative in the hope that discussion may take place amongst members even if it is in an informal way. Partly because I'm sure all members consider themselves as part of the construction industry and therefore are aware of the criticisms of the construction industry becoming less efficient and that when a building does go wrong, the consumer, even under the current Act and Licensing, has a difficult path to get satisfaction and that it often results in protracted and costly legal action.

The majority of these comments relate to housing.

1. Per 100 homes NZ has easily the most local government Building Inspectors (BCA) than anyway else in the world. Up until around 1990 an average house may have been inspected 3 or 4 times. A similar number or maybe slightly more than in any Australia State, during construction in the 1990s this increased to approximate 8 times and in the Naughty's (2000s) maybe to 12 - 15 times. Besides that the number of local and central government workers working behind the scenes has increased dramatically. So much for reducing our Nanny State's involvement in private enterprise and to anybody looking in from outside in would appear problems increased proportionally to the number of inspections.
2. NZ is possibly the only place where local government issues a Code Compliance Certificate for a private enterprise. In NZ we don't do that for Solicitors, Accountants, Pharmacists, Car Dealers, or Real Estate Agents. They may be audited but if faults come to light after that audit it is still the license holder's problem. Some Australian States for housing issue a "safe to occupy" which means exactly that.
3. The amount of detail required to support a Building Consent application has increased many many times since 1991. As a direct result of the 2004 Building Act which requires for a BCA to cover every item used in the construction of the building the amount of paper work is now 5 or 6 times anywhere else in the world for an identical dwelling.
4. The cost of all Building Consent fees in NZ /per year for all projects then it is a huge amount of money. For an average house it seems to be far more than if the same house was built in any state in Australia or USA or under the Building Code Insurance scheme in the UK. This is easy to check online or by phone.
5. On relative small repair work that does require a Building Consent the cost and time to gather the necessary documentation and pay for the consent is often up to 40% of time and cost of the job.
6. Australian, USA and UK governments and industry quickly worked out certain contractual situations were high risk i.e. if someone outside the construction sector who owns a block of land and then project manages the construction of said dwelling or dwellings it is high risk. Effectively they have worked out that the less the person in charge of the cheque book knows about the Building Control law and Building Code requirements the more likely a train wreck. My guess is over 50% of the "leaky Homes" were constructed under such contractual arrangements. So in Australia, USA and UK strict controls are placed on that arrangement. In NZ they are treated the same as an individual or construction firm that has been in business for a number of years and have a good record.
7. Other countries have a Construction Industry licensing system and there are similarities with each other, mainly that their licensing regime starts with the main contractor. When the Australian State's introduced Building Control Acts they included a licensing regime. In WA and SA they have had more or less the same Building Act and industry licensing for 60 to 70 years and it is still suitable for administering the latest Australian building code. If the main contractor is licensed then it means the consumer has a contract with the license holder. We have the situation were in the majority of cases the consumer will not have a contact with the License Holder (LBP). It is like having no Car Dealer's license but a Car Salesperson license, then when a consumer buys a new car off an unlicensed firm they find that getting any warranty claims or faults repaired is a legal nightmare.
8. In each state of Australia a complaint by a consumer over a possible Building code deflects is investigate by panel of building experts, often free or at little cost, and if up held it becomes public information, bad for the licensing holder's business and if the repairs are not started within a month the repairs will come out the Building Code insurance and the licensing holder penalized or struck off for serious breaches of the Building Code. In NZ since 1991 Building Act breaches have been decided on legal arguments around contractual agreements. With our current license regime it will add another layout of lawyers for every LBP who work on the building.
9. In NZ with the houses that were considered "Leaky" any element of that dwelling that did not meet the minimum requirements of the building code was a breach of the Act. Yet, at a guess 99% of the legal action has been a Civil Action between the consumer and all parties that had contact with dwelling during

construction not a prosecution under the Building Act. In Australia, USA or with the UK building code insurance companies, the consumer and licensing board would be dealing with the main contractor. The problem of hiding behind a shell company is something WA and SA dealt to 60 or 70 years ago; here it is a major sticking point.

10. I know MPs and others talk about the possibility of legal action against company managers and directors under consumer law but who is going to fund it? Local government, central government or the consumer? History has shown that legal action is very costly, often tens of thousands of dollars which could and should be spent on repairs.
11. The 1991 Building Act was introduced without a mandatory requirement for anyone in industry or local or central having to demonstrate a working knowledge of the Act or regulations before being involved in construction work. That changed in 2004 and staff employed at a BCA (local Government) were required to demonstrate a knowledge of the Act and Code, but still no one on the construction side is required to? In Australian State Law license holders are required to take a course and sit an exam on the Australian Building Code before applying for a licensing and setting up in business.
12. The simplest licensing regime in Australia is in WA which is probably the oldest and still largely unchanged. Queensland while it does have a licensed main contractor for Housing, also has a large number of registered trades maybe 115 to 120. Three states, Tasmania, Victoria and NSW besides a main contractor's license for housing, also have or had a LBP license who is seen as a hired gun, someone who can work for anyone who has an interest in a particular dwelling, the consumer, insurance company, finance company etc. In 2004 a NSW Select Committee recommended that the Government remove the LBP has it had served no useful purpose for the consumer.
13. One of the main reasons for having any licensing system if not the main one is, for consumer protection. Yet our New Zealand LBP regime will more than likely increase the number of lawyers and legal augments because of the increased numbers parties involved. When there is a building code problem or even a warrantee claim it will make it more difficult for a consumer.
14. There are disadvantages with the WA system as while it has served the consumer well, the large group housing firms dominate the housing industry. No New Zealand individual or company can set up in Australia without a license, yet Australian companies can set up in NZ and the building code expertise's is provided by local authority employees whose training was provided by the ratepayers.
15. Somewhere between NZ's system and WA's with a bit of the UK's thrown in, there has to be a better way and it is time to talk about it. Even if there were no Building Code problems our system of administering the building control law effectively means an inefficient and costly process.
16. The best move LBP's could take is to form an association and hire good legal and professional negotiators. The planning of a dwelling can't start without an LBP; the onsite work can't start without an LBP, a CCC can't be issued without a LBP's returns. Many are starting realise that as the LBP is the only license under the Building Act a holder carries a lot of legal responsibility whether they are on wages, a labour-contract rate or supplying some materials and labour skills. Therefore if they can be represented by experts in their dealings with employer groups, BCA's or even individual inspectors it could make life easier for them and possibly harder for BCAs etc. That is a worst case scenario but an association of LBPs may be a powerful group.

The challenge of providing habitable housing that meets suitable standards that are energy efficient, durable, at a reasonable cost and built in a timely manner is a big enough task for NZ industry but one that the current system of administering the New Zealand Building Control law seems to me to be holding NZ back and keeping it inefficient. My guess is that we have about 5 years to adapt or the majority of housing in NZ will be carried out by Australian or Chinese firms- or at least by business's that are not currently in NZ.

Article written by Ray Lichtwark, Certified Builder.

The views, opinions and calculations expressed in this article are solely those of the writer and not those of the Building Officials Institute of New Zealand. The Institute does not take or accept any responsibility for the accuracy of the articles content.

2014 Conferences

Date	Conference	Location
27 February – 1 March	New Zealand Institute of Landscape Architects	Gisborne
19 March	ForestWood	Wellington
26 – 28 March	PrefabNZ Conference	Auckland
26 – 28 March	Master Plumbers, Gasfitters & Drainlayers Conference	Christchurch
6-9 April 2014	Building Officials Institute of New Zealand 47th Annual Conference and Expo	Wellington
21 April 2014	Passive House Tour and Conference	Germany
Autumn 2014	NZILA Conference	Gisborne
7 June	Property Council Awards night	
6 – 9 August 2014	NZ Contractors Federation and ACENZ joint Conference	Rotorua
21 – 22 August 2014	Building Officials Institute of New Zealand Senior Building Control Officers' Forum	Christchurch
Early September 2014	Property Council Annual Conference	North Island
24 – 27 September 2014	ADNZ Annual Conference	Bay of Islands
11 – 14 October 2014	The Concrete Industry 50th Annual Conference	Wairakei

Research Tackles Condensation

BRANZ's new vapour control in walls project will define the condensation limit for typical New Zealand walls and clear up confusion about the role of vapour barriers and vapour retarders.

BY GREG OVERTON, BRANZ SCIENTIST – BUILDING PERFORMANCE GROUP

TYPICALLY, NEW ZEALAND walls do not require a vapour barrier (see Build 99 Getting clear on vapour barriers and underlays), and our houses are not required to meet a particular level of airtightness.

Some areas of the world, however, have one or both of these requirements, in part to prevent moisture damage from condensation within walls. In such cases, the building envelope contains layers that specifically control transport processes – a vapour barrier for diffusive and an air barrier for convective processes.

To date, New Zealand has seen few cases of condensation damage in typical walls, arguably validating its approach to vapour and air control.

Project to identify limits

However, we know from previous work at BRANZ (see Build 127 Changing the air indoors) that houses are being built more airtight and with greater levels of insulation than before.

This may mean that typical New Zealand wall construction is edging closer to a point where condensation issues may be created. However, it is currently unclear just what combinations of building detail and indoor and outdoor climate may tip these walls into a damaging condensing regime. The vapour control in walls project aims to define these limits.

Additionally, the project will provide specific guidance in cases where a wall contains multiple layers of insulation, for example, glass wool in the stud space and a polystyrene sheathing on the outside of the framing. These configurations potentially present a risk of condensation accumulation within the wall unless careful thought is given to their design.

Expands on WAVE research

This work has not previously been done in New Zealand because:

- Airflow processes in lightweight timber-framed walls have not been fully understood
- The ability to model these airflows and the effect on the wall performance has been limited.

Recent work in BRANZ's Weathertightness, Air quality and Ventilation Engineering (WAVE) project has measured airflows in the stud space of walls, and although these are likely to have minimal effect on a wall's thermal performance, they could transport significant amounts of moisture out of the wall (see Figure 1). The vapour control in walls project will use and expand on the measurements from the WAVE project to understand their role in moisture management.

Modelling issues

There is an industry-wide increase in the use of hygrothermal software packages such as Fraunhofer's WUFI to design wall systems. While this is to be encouraged, it is important to understand the limits of the software's capability and that careful attention is given to the settings and boundary conditions used in any simulation.

For example, a one-dimensional model with no capability for modelling airflow is perfectly adequate for an airtight mass wall but may not be the best choice for lightweight timber-framed construction that is not necessarily airtight. In general, 2D analysis is preferable for New Zealand walls because it allows the moisture-buffering effect of the timber framing to be included.

Previously, BRANZ, as a collaborative partner with Germany's Fraunhofer Institute, developed the capability to include cavity ventilation into WUFI models (see Figure 2). In this project, we will further develop the software to account for multiple airflow processes within the wall.

International modelling standards

There are a few international standards that recognise the use of numerical modelling for designing against moisture problems, among them ASHRAE Standard 160 and BS EN 15026. Both of these will continue to be developed as moisture modelling techniques mature, but at the moment, there is still an onus on the designer to ascertain adequate boundary conditions, and airflow processes are notably absent from the standards.

Aim to help designers' selections

As well as the computer modelling work, a number of tests on timber-framed and steel-framed walls will also be performed to experimentally assess the condensation risk in walls with multiple layers of insulation and to verify any findings from the modelling work.

A successful outcome will allow designers to use or reference a robust method when they are selecting a vapour control, air control or insulation layer for their walls and prevent any potential condensation damage.

Whether any changes to current construction practice are necessary will be determined as the project progresses, but even if they are not, we will know how far current practices can be pushed for airtightness, insulation levels and even climate change.

The first results from this project are expected to be available in the second half of 2014, with the project finishing in 2016.

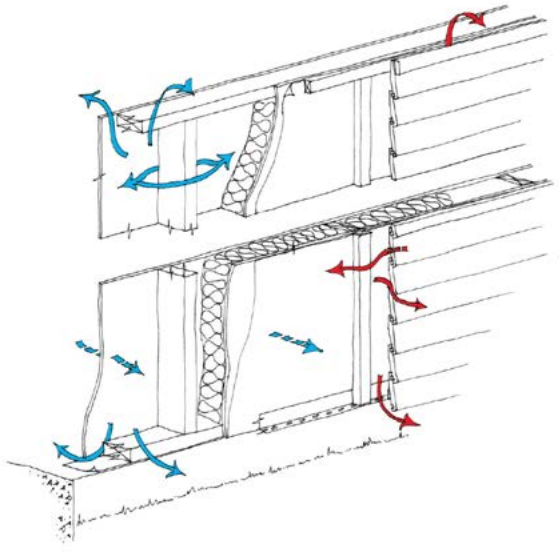

Figure 1: Airflows in walls. All have the potential to transport moisture.

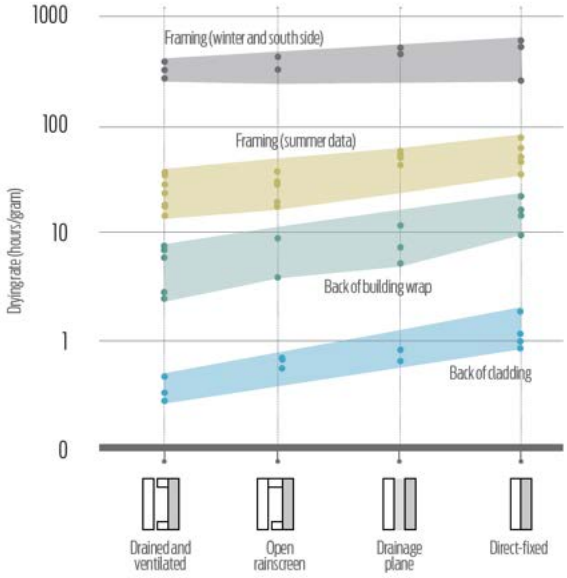

Figure 2: Cavity ventilation has been shown to have an effect on drying rates.

Northland Branch Meeting trip to Carter Holt Harvey Ruakaka

Our September meeting was held at the LVL plant at Carter Holt Harvey (CHH), with usual attendance down a little due to annual leave and sickness.

CHH's LVL plant is a huge complex built in 2000. It employs 225 staff and runs 24 hours seven days a week.

Members were split into 4 groups and after being issued with high viz vests and earplugs we set off on our tour. Safety is paramount in this establishment and 12 hour maintenance checks are run fortnightly. All the timber used comes from forests in Northland. They have 25 logging trucks undertaking up to 100 truck movements a day with 80.10% of the output products going to Australia, 15% staying in New Zealand and the remainder being shipped to the rest of the world.

LVL structural beams first appeared in our building industry during the late 90's and each grade of product has its own recipe.

Radiata logs go through stages of softening, steaming and laser peeling. A boiler run by the remaining wood fuel (as only 30-40% of the original product is used), steams away all day with 3-6 logs going through at one time and up to 10 a minute.

Lasers in a lathe then grade for sap content. The wood then travels on huge conveyor belts through a drier which runs at 150-200 degrees with the logs taking 10 minutes to travel through. They are then graded again for moisture content which is generally 4.5%.

The sheets of thick plywood go through a gluing, microwaving and pressing process to become the laminated veneer lumber so popular today.

Following what was a most interesting tour, members were treated to further hospitality including amazing cream cup cakes and afternoon tea. A great opportunity for further networking.

Our thanks to Trevor Reder and Mitchell Leith for arranging this tour for us.

Jane Stace, Northland Branch Secretary.

Carter Holt Harvey is a 2014 Gold Premier Partner of the Institute.

Canterbury/Westland Branch Meeting – Hokitika Treetop Walk

The annual trip for the Canterbury/Westland Branch was made across the Southern Alps to Hokitika on the weekend of the 24 August 2013.

Members from Waimakariri, Hurunui, Christchurch, Buller and Grey District Councils assembled on Saturday morning at the Treetop Walkway, located 15 minutes south of Hokitika.

This is the first treetop walk of its kind in New Zealand. The board walk is approximately 1/2km long and stands 21m off the ground, surrounded by the canopy of native trees. From the walkway you can ascend 106 steps up a tower to a viewing platform which stands 47m above the ground. The 360° view takes in the mountains to the south and boarders Lake Mahinapua to the east.

Lake Mahinapua is also a first. It was the first reserve in Westland created for preservation purposes. A special act was passed in 1893 which vested control of the area with the Westland Acclimatisation Society 'for the purposes of preserving the fauna and flora thereon'. The Department of Crown Lands became concerned when the society allowed the lake to be used for shooting. The Society also tried selling part of the reserve for mining; it was at this point the local residents and government departments lobbied for the Crown to resume control of the reserve. So in 1953 the Lake Mahinapua Domain was created.

The walkway project required the Department of Conservation, the local Iwi and the developers to work in partnership. It took 3 years to pick the site, which needed to: accommodate proximity to existing tourist routes, provide a ridge in the contours for accessibility on and off the walk, have a mature forest and provide excellent scenery.

Each of the towers are held on foundation tower blocks which are held up by wire guys secured to 2.4m x 2.4 x 1.8m concrete in-ground anchor blocks. This is similar to a tent pole system, with the bottom fastenings of the tower's nuts backed off from tight to allow for movement.

Many challenges were encountered during the consenting process. From showing means of escape for a structure that is still a building with no power in its surroundings. Providing an accessible path from the point of entry to 21m above the ground took some kiwi ingenuity, where a golf cart is available to take you to and from the start of the board walk. The coating system used on the structure was required to comply with Zone D requirements and before construction began a safety plan was required for working at heights.

This whole project took 1 year from starting the construction to completion. It is well worth taking the time to experience this wonderful feat of engineering and design, that nestles itself amongst the native fauna and flora.

Thanks to Eddie Newman, Westland District Council and Julia Bradshaw, Director of Hokitika Museum for providing the technical data and history information contained in this article.

Brenda McIndoe, Canterbury/Westland Branch Secretary

WAIKATO/BAY OF PLENTY END OF YEAR CHRISTMAS MEETING.

They say that good planning is the key to an excellent event and this was true of the 2013 Waikato/Bay of Plenty BOINZ November branch meeting and Christmas event held in Rotorua.

An excellent site tour in the morning was hosted by the Redstag mill and treatment plant team. They have a very large faculty with a staff of 250 and 50 contractors, making it a very busy place throughout the week. After lunch we had a presentation from Nigel Dickinson of SAFE Chimney by Krikyl and their steel frame system inside brick chimneys; this is a great system with a number of different applications.

Members then went onwards to Lake Rotorua for the rest of the afternoon on the fantastic Lakeland Queen stern-wheeled driven 2 story launch with an incredible BBQ on board. Here members enjoyed the festivities, including our annual award ceremony. First prize for our quiz went to Alister Arcus – a fountain of knowledge!

A fantastic day was had by all and I would like to wish all Waikato/Bay of Plenty branch members and BOINZ members across New Zealand a very merry Christmas and a happy new year and please drive safely so that we can all welcome in a new year of great branch meetings and site visits.

We also have the 2014 BOINZ Annual Conference in Wellington at the TSB Bank Arena, 6-9 April to look forward to – hope to see you all there.

Phil Roberts, Hamilton City Council

Jim Malone, Carter Holt Harvey (Gold Partner of BOINZ).

A special thanks to Winstone Wallboards and Carter Holt Harvey for sponsoring our Christmas meeting – member's really appreciate it and we look forward to working with you in 2014

Backflow issues and updates

An update by Graeme Mills, Water New Zealand Backflow Special Interest Group.

CROSS CONNECTION SURVEY INDUSTRIAL STANDARD

In our previous news item (September 2013 Straight Up), we indicated that we are developing a Survey Industry Standard and meetings have since been held to continue the development of that Standard.

In late October Water New Zealand backflow SIG members met with Building Officials Institute of New Zealand Chief Executive Nick Hill to discuss the option of the Institute having a representative on the committee. Our meeting was very constructive and both organisations will work together to achieve a satisfactory outcome.

Further information will be circularised when appropriate.

CHEMCHECK WITHIN THE IRRIGATION INDUSTRY

Water New Zealand Backflow SIG has had concerns for some time on the use of a single check device to mitigate backflow in the Irrigation Industry. As a consequence we took the step of writing to various Regional and Local Councils pointing out that the use of a single check is not an approved device under New Zealand legislation. We have also sent the same correspondence to various Ministers of the Crown. However our concerns appear to be falling on deaf ears.

We have learnt these devices have been approved for use by the Canterbury Regional Council.

Item taken direct from Ecan web site document;

FERTIGATION BACKFLOW PREVENTERS: A BEST PRACTICES GUIDE

Chemigation Check Valve (CCV)

- Come in two types either as single or double anti-siphon check valves.
- Protect against back-siphonage and backpressure.
- Lightweight, easy to install and maintain.
- If the relief valve is within 20m of the water source, a trough or conduit must be provided to carry valve discharge away from the water source.

Disadvantage – small pressure loss occurs across the device.

Our concern is that these devices are being installed in the Canterbury Region with the potential that water removed from the aquifer could return to the aquifer and if there was contamination the aquifer could be affected. Any contamination may not be identified for some years down the track.

Quote from Ecan publication "Fertigation (fertiliser-irrigation) is the application of fertiliser, soil amendment, animal effluent, or reclaimed water (from food processing or wastewater treatment) with irrigation water". The safety issue is; how this mixture is created on-line and connected to the aquifer.

From conversation it is obvious many BCO's are unhappy with a situation where the aquifer could be polluted.

Should a consumer be killed through drinking a contaminated water supply, where does the responsibility then lie? Our view is that this liability will rest squarely with the Regional Council for approving a device that is not approved under current NZ legislation.

The Backflow SIG would welcome your comment on these single check devices (email Graeme.mills@tauranga.govt.nz)

Minister sees Construction sector gearing up for demand

The Construction Sector Report launched in November highlights the huge wave of work in the years ahead for the construction sector.

Speaking at the launch of the report, Building and Construction Minister Maurice Williamson said the sector needs to be ready to ride this wave and make sure it has the skilled workforce it needs.

"The rebuilding of Christchurch, housing demand in Auckland and fixing leaky homes are all putting unprecedented pressure on the construction industry. With demand projected to peak in 2016 it's important that building work is completed by trained professionals and it complies with the Building Code.

"More than 23,000 building practitioners have now been licenced under the Licenced Building Practitioners scheme, increasing professionalism in the industry. From December, local authority building consent officers will begin to become qualified under an accreditation scheme.

"This and the 8000 new apprentices who've signed up this year as part of the Government's Apprenticeship Reboot mean the sector is stepping up in terms of skills and competency," Mr Williamson says.

Building (Accreditation of Building Consent Authorities) Amendment Regulations 2013

Jerry Mateparae, Governor-General

Order in Council

At Wellington this 18th day of November 2013

Present:
His Excellency the Governor-General in Council

There's also work underway to increase productivity in the sector, including bringing in risk based consenting, the development of national online consenting, promoting digital building information modelling technology and better procurement practices via the Construction Procurement Centre of Expertise.

BOINZ looks to encourage sector awareness amongst students in the construction industry. As part of our 47th Annual Conference and Expo, we are offering student/cadet rates at a much lower cost, to try ignite some interest in building controls and for current students to get a better understanding of our industry.

Building Amendment Act 2013

There have been changes to the Building Act (the Act) that affect the work of building practitioners and the home handyman.

The changes are in the Building Amendment Act 2013 that became law on 28 November 2013. Some changes come into force immediately and some will come into effect in 2014.

They include changes to the types of work that do not require building consent. More low-risk work is exempt from building consent and there are limits on potentially high-risk work.

You will be able to demolish a detached building that is not more than three storeys high without building consent. Previously you could only do this if the building was damaged. This means, for example, that an old, single-storey detached bach could be demolished to make way for a new dream home without applying for building consent. The new dream home will require building consent though!

It's also possible to remove a potential earthquake hazard without building consent, such as the upper part of a brick chimney that is protruding above the roof.

Some existing outbuildings, such as carports, garages, greenhouses and sheds, can be repaired and replaced without building consent, whether they are damaged or not.

The building work may be exempt from building consent if the new outbuilding is the same size or smaller than the original, and is on the same footprint and is a comparable outbuilding to the original. You can't, for example, replace a carport with a garage without building consent, nor can you shift a shed to another part of your property and add an extension without building consent.

The do's and don'ts of exempt building work are listed in Schedule 1 of the Act, which has been reformatted to make it easier to navigate.

Schedule 1 has been split into three parts. The first part contains building work that anyone can do (including the home handyman). The second part deals with sanitary plumbing and drainlaying, which must be carried out by people authorised under the Plumbers, Gasfitters and Drainlayers Act. The third part covers building work which requires input from a chartered professional engineer.

MBIE's guidance document will contain examples of the kind of work that is exempt and examples of work that requires building consent.

The guidance will also advise readers to seek good advice on any building work, before they start. It will remind readers that all building work must comply with the Building Code and that any alterations or additions to an existing building must not adversely affect the building's compliance with the Building Code.

The guidance will be published soon. In the meantime refer to Schedule 1 of the Act for details of work that can be done without building consent.

Other immediate changes to the Act include: higher penalties for work done without the proper consent; Councils have more powers to restrict entry to buildings that are near other dangerous buildings; the Ministry of Business, Innovation and Employment (MBIE) has more power to hold building consent authorities to account; and there have been changes to the way dams are defined and measured.

Changes that come into effect later next year include new regulations to protect consumers who are building a house or making major renovations to their home.

Building practitioners will have to give consumers information about their skills, qualifications, licensing status and business record when they are engaged to build a house or extension. Practitioners will have to provide written contracts for work over a certain sum and can be fined if they don't comply with the law.

There will be a 12 month 'defect repair period' when building practitioners will have to fix any defects they have been told about without question or additional charge.

MBIE will develop the regulations over the coming months.

For more details about the Building Amendment Act 2013 go to http://www.dbh.govt.nz/building-amendment-act-2013 . You can download a fact sheet or read the key information on the web.

ACRS Certification: Confidence in steel supply

BACKGROUND

The ACRS certification scheme for construction steels delivers confidence in steel materials supply through independent third party product certification of manufacturers and suppliers worldwide, on behalf of the construction industry.

The Australasian Certification Authority for Reinforcing and Structural Steels, "ACRS" (until 4 September 2013, called the Australian Certification Authority for Reinforcing Steels) administers an independent, expert, industry-based, third-party product certification scheme, certifying manufacturers and suppliers of reinforcing, prestressing and structural steels to Australian and New Zealand Standards.

ACRS is supported and endorsed by member companies ranging across engineering, inspection, manufacture, government, and importantly, customer bodies.

ACRS has undertaken more than 750 factory assessments of steel construction materials since 2003, and ACRS now certifies over 150 manufacturing and processing sites, belonging to 41 steel companies in 16 countries, providing the building and construction industry on both sides of the Tasman with the widest range of professionally witnessed and assessed steel products available to AS/NZS standards.

ACRS certifies construction steels to 6 Australian/New Zealand steel standards:

1. AS/NZS 4671 – Steel reinforcing materials (for both manufacturing and processing)
2. AS/NZS 4672 – Steel prestressing materials (bar, wire and strand)
3. AS/NZS 1163 – Cold formed structural steel hollow sections
4. AS/NZS 3678 – Structural steel - Hot-rolled plates, floorplates and slabs
5. AS/NZS 3679.1 – Structural steel – Hot-rolled bars and sections
6. AS/NZS 3679.2 – Structural steel – Welded I sections

ACRS is currently assessing further AS/NZS construction steel standards for future certification. These will be advised in due course.

THE ACRS DIFFERENCE: SUPPLIER TEST REPORTING AND VERIFICATION

The reasons for industry urging ACRS certification of these materials is the observed increase in incidence of materials failures, and the consequential financial and physical risk to customers, building workers and general public.
The three major components of ACRS certification are

- Testing of samples selected by ACRS, not the supplier, and independent, expert review of results against AS/NZS Standards, and
- Periodic review and approval by ACRS of the manufacture of all materials' types supplied to the appropriate Standard/s by each certified company. This approval is a vital part of ACRS certification, ensuring that anyone relying on ACRS certification can be confident that ongoing supply by ACRS certified company of the materials listed on an ACRS certificate will consistently meet AS/NZS Standards.
- Supply of any non-ACRS verified Materials to the certified Standard may result in termination of the Firm's certification

ACRS COMPLIANCE CHECKLISTS

The checklists have been designed by ACRS for the guidance of builders, engineers and building surveyors who verify structural and reinforcing steels to AS/NZS Standards. These checklists form a valuable part of a professional verification process by highlighting the basic steps for confirming the origin and specification of manufacture of steel construction materials.

Compliance Checklists for Structural Steel and Reinforcing Steel are available for download at http://www.acrs.net.au/announcements/compliance-checklists

For more detail on the ACRS scheme, and to check which suppliers are ACRS certificate holders, go to www.steelcertification.com

The Institute's position on the board of ACRS allows us to directly influence the standards of steel compliance within Australasia. Through our partnership with ACRS, we are able to provide our members and the broader New Zealand building community a relevant, credible certification system, setting us on the pathway of achieving our vision to "Improve the quality and performance of the built environment". Click here for more information on ACRS.

Don't leave steel compliance to chance.

- Whether you're an engineer, certifier, builder or supplier – using and signing off on non-compliant steel is simply a chance that's not worth taking.
- If the integrity of your structure fails, loss of reputation and financial liability could just be the beginning of your problems.
- Building with steel that appears less expensive could also mean it doesn't comply with Australia/New Zealand Standards for construction.
- ACRS Certificates of Product Compliance help check compliance to Australian/New Zealand Standards and the Building Codes.
- How do you know your building or construction is safe if you don't know if the materials are compliant?
- Understanding how you can protect yourself is critical. You have the power to refuse to use non-compliant steel.
- So ask yourself this – is it worth building without an ACRS certificate?

It's not a risk worth taking.
Demand the ACRS Certificates of Product Compliance.

Contact ACRS on (02) 9965 7216 or info@steelcertification.com or visit www.steelcertification.com

ACRS – The Australasian Certification Authority for Reinforcing and Structural Steels Ltd ABN 40 096 692 545

ACRS

Independent Third Party
Australasian Standards
Certification & Verification of
Reinforcing, Prestressing &
Structural Steels
Compliance

www.steelcertification.com

2014 Training Academy Public Schedule Calendar

FEBRUARY		
10	NZHHA Solid Fuel Semianr Training	Palmerston North
11	NZHHA Solid Fuel Semianr Training	Christchurch
12	NZHHA Solid Fuel Semianr Training	Selwyn
MARCH		
17	TA001 Communication/TA003 Ethics	Wellington
17-19	TA002 Building Controls	Christchurch
17-20	TA008 NZS 3604 Timber Framed Buildings	Wellington
20-21	TA013 E2 Weathertightness	Christchurch
24-26	TA020 Fire Documents	Wellington
26-28	TA009 NZS 4229 Concrete & Masonry Building	Auckland
APRIL		
1	TA004 Accreditation	Wellington
1,2,3	TA105 Complex Plumbing Inspections	Wellington
2	TA010 Light Steel Framing	Christchurch
2,3	TA006 Site Inspection	Wellington
4	TA015 Clause D1 Access Routes/ TA015 Clause F1 Safety of Users	Christchurch
14,15	TA005 Plan Processing	Auckland
MAY		
5,6,7	TA002 Building Controls	Auckland
8,9	TA013 E2 Weathertightness	Auckland
19,20,21,22	TA008 NZS 3604 Timber Framed Buildings	Auckland
26,27	TA104 Complex Fire Design	Wellington
26-28	TA009 NZS 4229 Concrete & Masonry Building	Christchurch
JUNE		
16	TA010 Light Steel Framing	Wellington
16,17,18,19,20	TA019 Plumbing Drainage & Compliance	Auckland
17	TA001 Communication/TA003 Ethics	Auckland
23,24,25	TA020 Fire Documents	Christchurch
JULY		
21,22	TA013 E2 Weathertightness	Wellington
21,22,23	TA002 Building Controls	Wellington
23,24	TA005 Plan Processing	Christchurch
28,29,30,31	TA008 NZS 3604 Timber Framed Buildings	Christchurch
29,30	TA006 Site Inspection	Auckland
31	TA004 Accreditation	Auckland
28-30	TA009 NZS 4229 Concrete & Masonry Building	Wellington
AUGUST		
5	TA010 Light Steel Framing	Auckland
7,8	TA104 Complex Fire Design	Auckland
11,12,13	TA020 Fire Documents	Auckland
28	TA015 Clause D1 Access Routes/ TA015 Clause F1 Safety of Users	Wellington
SEPTEMBER		
1	TA001 Communication/TA003 Ethics	Christchurch
1,2,3	TA105 Complex Plumbing Inspections	Auckland
2,3	TA013 E2 Weathertightness	Christchurch
8,9,10	TA002 Building Controls	Christchurch
8,9,10,11	TA008 NZS 3604 Timber Framed Buildings	Wellington
15,16,17,18,19	TA019 Plumbing Drainage & Compliance	Wellington
15-17	TA009 NZS 4229 Concrete & Masonry Building	Auckland
OCTOBER		
13,14	TA005 Plan Processing	Wellington
15,16,17	TA020 Fire Documents	Wellington
15	TA004 Accreditation	Christchurch
16, 17	TA006 Site Inspection	Christchurch
29	TA010 Light Steel Framing	Christchurch
NOVEMBER		
3	TA001 Communication/TA003 Ethics	Wellington
10,11,12	TA002 Building Controls	Auckland
10,11,12,13	TA008 NZS 3604 Timber Framed Buildings	Auckland
13	TA015 Clause D1 Access Routes/ TA015 Clause F1 Safety of Users	Auckland
17,18	TA104 Complex Fire Design	Christchurch
3, 4, 5	TA009 NZS 4229 Concrete & Masonry Building	Christchurch
DECEMBER		
1,2	TA013 E2 Weathertightness	Auckland
3,4	TA005 Plan Processing	Auckland
5	TA010 Light Steel Framing	Wellington
8,9,10	TA020 Fire Documents	Christchurch

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 charted 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.

NEW FIRE REQUIREMENTS NEED THE BEST PROTECTION

The **New GIB® Fire Systems 2012** technical literature includes changes to the NZBC related to fire (which comes into effect from April 2013), new penetration and surface property details, plus new systems.

If you haven't already received a copy, you can order one for free:

- visit **gib.co.nz/request-gib-fire-rated-systems/**
- call **0800 100 442** or
- scan the **QR code**.

GIB® Fire Rated Systems
BRANZ Appraised
Appraisal No. 289 [2006]

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Building Controls Fundamentals 2013

Available now

Book Contents:
Appendix Building Amendment Bill (No 4)
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