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THE MAGAZINE OF THE BUILDING OFFICIALS' INSTITUTE OF NEW ZEALAND

SEPTEMBER 2008

Making sense of conflicting information - page 11

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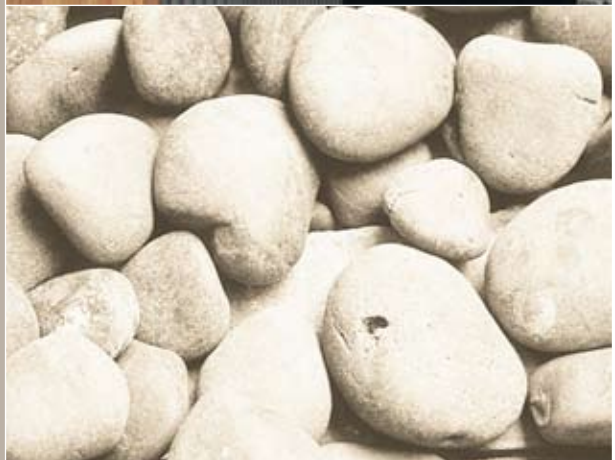

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straight up

IN THIS ISSUE

Building Officials Institute of NZ
People Helping People

Changing Governance Structure for Institute

The Institute has traditionally governed itself by electing a Board from within the membership through its branch network. This structure equates to a Board of Governance if the Institute's vision is focused solely on membership services.

However, following member input at the 2008 Annual General Meeting, an opportunity is now available for the Institute to review and revise its governance structure; something which is essential due to the level of potential commercial operations the Institute may be involved with during the next five years.

The Institute is already a million dollar business but opportunities it may decide to take up in the future will significantly increase that figure and the Institute could turning over $5 million or more in the next few years - a turnover that firmly places it into the small to medium sized enterprise category.

If the Institute does decide to take up any potential business opportunities it will require a Board with an enhanced level of commercial expertise and judgement.

THE MEMBERSHIP SHOULD CONSIDER THE FOLLOWING:

Facts:

- The South Island has only 25% of the total membership yet has three separate branches.
- Only 18% of the current members attend branch meetings.
- Auckland (having 37% of the Institute's members) only has one representative on the Board while Nelson (having 1.5% of the Institute's members) has the same representation.
- The North Island represents 75% of the Institute's total membership but only has 62% Board representation.
- The Northland sub-branch has 6% of the membership (higher than East Coast Branch) but has no separate representation and, instead, is represented by Auckland Branch.

For discussion:

- Should the Board consist of only seven members?
- Four members would be elected by the membership (the membership representatives).
- The four membership representatives would be elected on the basis of expertise rather than through a "next in line" process to ensure that members can be certain their elected representatives have the necessary expertise to manage their affairs.
- Three members would be appointed to the Board (by a Board sub-committee supported by external advisers) from outside the membership (the external members).
- The external members would be commercially astute and ideally, but not necessarily, have had connections with the building and construction sector or have legal or financial expertise.
- The Chairman of the Board will always be a membership representative to reflect the basis of the Institute's existence.
- Election to the Board will be for a period of two years and, on alternate years, one member representative and one external member representative will retire (by rotation) but would be eligible to stand for election again.

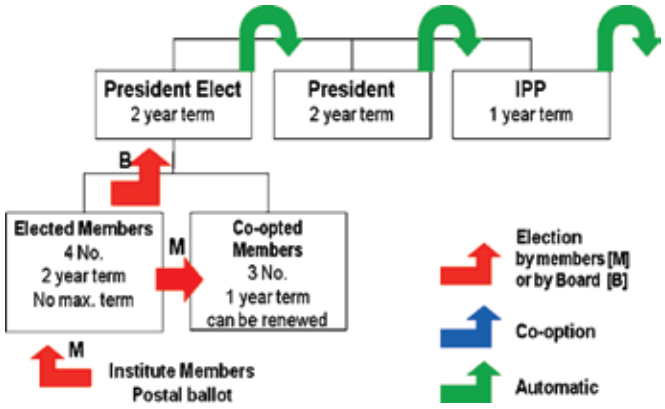
THE ELECTION PROCESS

The status quo will remain for the 2008/2009 and 2009/2010 year where board members are elected by their branches.

At the 2009 Annual General Meeting remits will be put forward to change the Constitution to reflect the following postal ballot election process for the 2010/2011 year:

- There will be postal elections for four board members from amongst the general membership.
- All documents, including nomination forms, will be sent to the Audit Committee (appointed by the current Board) and the Board as whole for approval prior to sending out to members in late 2009. The nomination form will outline the process.
- Once approved by the Audit Committee and Board, details of the 2009/2010 board nominees along with voting papers will be sent to all financial members. Members will vote and return their postal ballot to a Returning Officer.
- The Returning Officer will be an independent representative in order to ensure accuracy, validity and impartiality. They will be assisted in validation and counting of the votes by a Past President of the Institute

PROPOSED BOARD MODEL



Any questions regarding the above may be directed to Len Clapham at the Institute's office, or members are welcome to talk to me (or email me) at any time.

Ewan Higham
President

CHRISTOPHER HENRY
Principal Building Officer

I have been involved in the building industry for 37 years, I was trained as a plumber, drainlayer and gasfitter in the New Zealand Army. I was involved in a hospital construction project in Tonga, Contracts Supervisor based in Singapore for 2.5 years and Remote Site Supervisor based in Sinai Egypt as part of the peacekeeping force. On leaving the army, I looked for career opportunities, where I noticed a Plumber and Drainage Inspectors position with the Palmerston North City Council.

I have been with Palmerston North City Council for 15 years were I have held many positions, which include: Plumbing and Drainage Officer Dangerous Goods Inspector Senior Plumbing and Drainage Officer Senior Building Officer Consent processing Principal Building Officer

I was also part of the Palmerston North City Council project team tasked to achieve Building Accreditation. One of my key roles was to conduct all training and implementation of all processes and procedures associated with accreditation.

We all bemoan the rigorous accreditation process, personally, I believe it has given our industry the shake up that it needed.

Palmerston North City Council carries out all Building Control Functions for Manawatu District Council. I lead a team of eight, which includes five Inspectors and two Business Support Officers based at Manawatu District Council office at Feilding.

As we all tend to do, I am very passionate about our industry. We face many new challenges on a daily basis, which what makes our profession so unique.

Down time I enjoy fishing, golf when I can convince my buddy to play, mad about rugby, am involved with rugby refereeing, like dinning out and enjoying a good wine and of course having good quality family time.

DAVE LAUGHTON

Senior Building Control Officer/Technical Leader, Kaikoura District Council

Being brought up on the West Coast of the South Island without much in the way of job prospects, my father was determined that I would not become a coalminer, bushman or sawmiller. So when I was15 he arranged an apprenticeship for me in plumbing, gas-fitting and drainlaying. He, himself, was an indentured tradesman carpenter and joiner.

It is now 43 years since I commenced that apprenticeship and I have not regretted one day of it. On completion of the 12,000 hour (6 year) apprenticeship I was successful in passing the qualifying examinations.

In 1980, after working for various employers around the West Coast of the South Island on all aspects of large and small projects including hospital, redevelopment, mechanical services and local authority infrastructure development projects, I started up my own plumbing and drainage business.

The Local Body Elections in 1983 saw me elected to Council and I held the position of Deputy Mayor for the remainder of my time on the West Coast. This was an achievement I enjoyed very much. The local economy suffered a huge decline about the time I had been six years in business and, with contracts being cancelled, my wife and I decided we would sell up and move to Canterbury where I had a job offer with Christchurch City Council as Waterworks, Stormwater Drainage and Swimming Pools Fence Inspector. This move also proved invaluable for the education and development of our two children. Twenty-two years has now passed and I am currently employed by Kaikoura District Council as Senior Building Control Officer/Technical Leader, a position I have held for 10 years.

I have been a member of (firstly) the New Zealand Plumbers, Gasfitters & Drainlayer Inspectors Institute and, on its amalgamation, following through to Building Officials Institute of New Zealand (BOINZ). It is through the training organised in that amalgamation that I have become a successful new age multi skilled inspector. The ongoing BOINZ training seminars have proved to be invaluable.

In more recent times we were challenged with the new New Zealand Building Act 2004. A section of this Act makes reference to Local Authority Building Control Departments becoming Registered Building Consent Authorities. We achieved after three years of hard work and were 24th of approximately 76 Councils to become a Registered Building Consent Authority. Both my past and current staff has been instrumental in achieving this goal and it is something of which I am hugely proud.

In my career to date I have seen and been through all the legislative changes to Acts and Regulations. The next challenge we face is that all Building Control Officer's are to have a recognisable qualification by 2013. This is something many of us older Building Control Officers are not looking forward to. A few of us grey, lesser haired guys may opt out and go fishing.

I am often asked by colleagues: would I do it all again? Why not? Whether it be Building Control or whatever, the satisfaction of a job well done depends on how much an individual has put into it.

Hutt City Council and BOB ready for work.

CRAIG DODD

Building Control Official, Western Bay of Plenty District Council

I started in construction back in 1985 as a school leaver, simply because I didn't know what I wanted to do in life. However, when I eventually worked for an argumentative bricklayer he insisted I train at college, and I owe him a lot for my training in brickwork.

My City & Guilds distinction led me to work as a Building Surveyor trainee in 1989. Due to positive encouragement at college, and after several years getting my HNC in Building Studies, I ended up in Building Control for the same South East London Local Authority.

My marriage to a New Zealander (on her OE) led me to live in NZ for 16 months (1999–2001) which exposed me to the 'kiwi construction' way of life, as well as employment and a lot of encouragement at both Manukau (John Potter) and North Shore City Councils.

Whilst at North Shore I was sponsored to join BOINZ, along with a lot of on-the-job training by Peter Oden, Peter Fairchild and many others there.

A new baby and lack of money meant a return to the UK in 2001 where baby number two came along. I went into my own private practice as a designer and Building Engineer and this led to a degree in Building Engineering.

Finally all four of us moved back to New Zealand in July 2007 where I joined Western Bay of Plenty District Council as a Building Control Official (great team here). I have achieved my Level 3 licence and enjoy the beauty and fresh air of Tauranga and its surrounds.

I would have to say that, even in the UK, Building Control professionals are not properly recognised for the huge responsibility they carry and currently I believe that they earn around 35,000 pounds plus various benefits.

As you can see the money we earn here is very low in comparison, particularly when compared to the cost of living. When I was here back in 2000, I was earning $42k but we struggled on that as a couple with a new baby renting a 2-bed unit! We could not afford to buy anything reasonable on my salary and so had to return to the UK to save up enough to put down a good deposit now.

ITOs and ITPs

The following extract is from a report by the Tertiary Education Commission released under the Official Information Act. More reports about skills and trade training are available on the TEC website.

The Government is seeking more cooperation between ITOs and ITPs, less unnecessary competition, and a tertiary sector that is more responsive to employer and employee needs.

Overlapping provision is a strategic issue for the tertiary education system, particularly in the context of the tertiary reforms and the goals of the Tertiary Education Strategy 2007-12. Overlapping provision occurs when ITPs provide training services to employers similar to those provided by ITOs.

It has exacerbated long standing tensions between ITOs and ITPs, which are now impediments to some key aspects of the reforms. In particular, these tensions may limit the effective implementation of ITOs strategic leadership role, the development of more collaborative relationships between ITPs and ITOs and the implementation of the skills strategy.

A number of initiatives have been approved by Cabinet to help address these issues, including the introduction of a common regulatory framework for industry training for all TEOs.

Further work will be undertaken on possible initiatives and refinements to current policy settings, including funding arrangements, for industry training to better fulfil New Zealand's skill needs.

KAREN TURTON
Turton Building Control Ltd

HISTORY
I began my career in Building Control in 1989, a trainee with a Council in beautiful Dorset. It was the start of a recession in the building trade and not really a good time to be starting but I was grateful for the opportunity even though I did not know that much about the Building Regulations at the time. As with many first jobs I felt that the type of experience I was gaining was not wide enough so eventually left to join a London authority.

The difference was incredible along with the variety of work. In Dorset I mostly worked on the domestic properties such as cottages with thatched roofs, London was not the same. It was a steep learning curve for a country girl from Dorset. I now had to deal with multi-storey buildings, contaminated land and shopping complexes. As the construction industry was recovering from recession it was a very busy period.

MOVE TO THE PRIVATE SECTOR
When private building control was introduced I moved to one of the companies planning to be an Approved Inspector. Like many in Building Control I loved my job but working for the Council can sometimes feel like running in mud. You do your best but keep falling over. There seemed to be no thought about improving the service for customers. Some of the old timers liked it that way, I found it frustrating.

I had no idea when I became an 'Approved Inspector' how polarised Building Control would become over the next few years. Some Council's saw it as an opportunity to improve their services and reward staff for good work. Others seemed to spend their time blocking Approved Inspectors at every front. I have gone to seminars and received very hostile comments from Council Building Control Surveyors. There seemed to be a thought that overnight we stopped implementing Building Regulations just to win work. Rumours and allegations flew around the industry and the level of mistrust grew into 'us and them'.

SETTING UP ON MY OWN
After moving around various Approved Inspector firms I finally decided to take the plunge and went for Approved Inspector status myself with a view to setting up my own company. I had already convinced a friend from college days who had always been with the Local Authority to join me when the company was launched. I received approval in August 2004, and was very surprised to discover that I was the 'first lady' approved inspector. When I was told there would be a press release to go with my approval I was a little shy about the whole thing but I knew any publicity would be good. I opened shop as Turton Building Control in September 2004 and within 12 months had grown with two more women surveyors. Locally many builders were very amused to be dealing with a company of women building inspectors.

We have been operating now for nearly 4 years and have continued to grow. We have 6 surveyors and have had to move premises twice to cope with our growth. I now only deal with commercial developments which suits me, but as a company we still do a lot of domestic projects locally. We are currently inspecting a large student village in Sheffield which incorporates over 4000 bedrooms. I am also involved in the approval of a large central London Hotel opposite the Houses of Parliament; this has had to incorporate not only the normal means of escape provisions but also upward evacuation in the event of flooding in London.

CHANGING TIMES
I am pleased to say that the animosity between Local Authority and private approved inspectors seems to have largely dissolved. I was recently at a seminar and was chatting to a Chief of a Local Authority who offered to carry out inspections for my company if they were in his area. There seems to be an understanding that we are here to stay and the competitive market has done a lot to improve the standing of Building Control.

Perhaps the biggest problem that faces our industry at the moment is the incredible growth of the Building Regulations in recent years and the complexity of the guidance documents. I know many in Building Control who despair at the size of the legislation we are now under. Regular audits of completed buildings are showing a large number that do not actually comply with the Building Regulations. Departments either do not have the resources for the many the projects that they control or the implementation of new regulations has been poorly managed. This has led to a fundamental review of Building Control in England and Wales. What this will result in nobody knows. It could be shedding unnecessary red tape, increasing exemptions and self certification schemes or a re-writing of all the regulations. All I know is that I will have a lot of reading to do in the coming months.

As I write, the news is dominated by the threat of a possible recession, large house builders are laying off thousands of staff and house prices are tumbling. I am a little nervous about the coming year but hope any downturn in the market is short and the turnaround into a growing market quick.

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An architect's view on Building Consenting

A summary of the April 2008 BOINZ Conference Presentation

Richard Harris, President NZIA, Director Jasmax.

There has been growing concern that the industry has not been getting sufficient leverage from the significant amount of recent legislative and compliance initiatives. This article suggests remedies to this, especially with regard to architectural design and consenting.

Architects often undertake complex performance-based designs to meet specific client and end-user needs. These designs involve specialised knowledge that is both researched for that project and built up over time. The resulting innovative buildings can carry higher risks and much of our work is to ensure that these risks are evaluated and minimised. While a scientific approach to building enables us to provide solutions that better address unique design issues, approval barriers mean that issues are often solved within a framework of standardised solutions inappropriately applied.

We believe that it is the function of the Building Consent Authorities to be experts in standard construction type consents and Acceptable Solutions. However, for complex buildings involving alternative solutions and performance-based design there needs to be a different process. There needs to be a process that ensures work tasks are performed by those best able to perform them. We need to avoid the wasteful and unnecessary duplication of effort that happens currently.

It is better that the Building Consent Authorities see themselves in a facilitator's role rather than in an adversary's role. That is, working for the client to ensure compliant design in the minimum time. Rather than trying to understand all of the minutiae of the project they could use peer reviews to draw on expertise as required for high risk items and on the professionalism of the project team on lower risk items. This concept is not new to the authorities; it is just that it isn't applied across a wide enough spectrum. One idea that has been put forward is for BCA's to specialise but this may be fraught as complexity and specialised knowledge is increasing faster than the consenting industry can adapt.

For complex design I propose that the Territorial Authorities have an auditing role only with others taking responsibility for establishing NZBC Code compliance. This would be carried out by a mix of professional self-certification, project audits and peer reviews.

There is much greater room for self-certification in the industry. Why have relatively new Acts covering architects and engineers and a whole Licensed Building Professionals regime if you don't get the full leverage out of it. Architects, Engineers and other suitably qualified professionals should be able to self-certify their designs as being NZBC compliant. This is particularly relevant for complex buildings. Where Acceptable Solutions are used this is relatively straight forward but where the solution is performance based there will need to be a mix of peer review or accepted alternative standards. To ensure quality assurance the Territorial Authority would be responsible for managing the auditing of the project.

These ideas build on the best of what we have currently to get maximum leverage from the industry. We cannot continue to solve tomorrow's problems with yesterday's answers.

Building Safety Week Winner

During Building Safety Week Council announced a small competition where all recipients of a Code Compliance Certificate (CCC) during June went into the draw for BOB (The Building Officials Bear).

28 countries took part in Building Safety Week which promoted safety where you live, work & play and to raise awareness of the role Building Control Officers take in protecting lives, property & public safety.

Pictured above is Warren Gillespie of Saul Maintenance and Construction Ltd who was the worthy recipient of BOB, being congratulated by Jeff Jamieson – Team Leader Building Control of Wanganui District Council.

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Window on wind farm compliance

Wind farm developers are keen to demonstrate compliance with resource consent conditions to aid future wind farm developments. While opponents to wind farms look for ways to discredit future wind farm projects, sometimes on the basis of non-compliance with resource consent conditions, the industry is looking for a consistent approach to the consent process.

Compliance with resource consent conditions for the civil works of wind farm construction is important for the following reasons:

- The potential for penalties to be incurred under the provisions of the RMA which may
- have significant financial and timing implications
- Establishing track record and credibility
- Assists in being a good neighbour and tenant
- Provides an opportunity to be more effective

Under the Resource Management Act 1991 there are provisions for non-compliance to be dealt with by way of enforcement and abatement notices that require cessation of works and this has the potential to result in costly time delays. There is also the ability for prosecutions to be undertaken with fines of up to $200,000 and or imprisonment allowed under the Act.

Wind farms have a life of 20-30 years during which time they need to happily coexist with landowners and neighbours. Establishing and maintaining a positive relationship during the construction phase provides a good platform for a good relationship during the operation phase so good communication skills of all concerned with the project are paramount. Critics of the RMA who believe that the Act stands in the way of progress should note that opponents to wind farms more than likely to support the Act; whatever the view, supporters of the Act or critics of the technology, each has the power to make development of wind farms a protracted and costly business.

Typically the consents conditions relevant to civil construction activities cover:

- Hours of operation
- Traffic movements to and from the site
- Dust control
- Construction noise
- Sediment control
- Rehabilitation
- Reporting
- Fuel handling
- Machinery condition
- Fire management

An important consideration in resource consent compliance is that ultimate responsibility for compliance rests with the consent holder. However, the consent holder is just the tip of the iceberg in respect of those on site and those who have the ability to perform an act of non-compliance. There is considerable variation of people's involvement with the site – some are based there full time while others only come on an occasional basis.

In addition, it is not possible to complete a final design until resource consents have been drafted as the resource consent process introduces new considerations. For example, at Makara the consent process identified a need to minimise the disturbance within the Makara catchment. As a result the roads were moved west where possible over the ridge. An example of the works this required is demonstrated in the reduction in bulk earthworks from initial design as shown in this table.

Project	Estimated earthworks	Actual
Te Apiti	1.4 million m^3	1.0 million m^3
White Hill	900,000 m^3	600,00 m^3
West Wind	1.8 million m^3	1.4 million m^3

Supplementary environmental management plans (SEMPs) required to satisfy those considerations were prepared in collaboration between wind farm company staff, consultants, civil contractors and council staff. This process (after ??? months???) resulted in an optimal final design.

The table below shows four Meridian Energy projects and how councils have treated each one in respect of consent conditions and the number of consents required. The table only covers the original application and excludes "by laws".

The two key compliance documents are the Environmental Management Plan and the Supplementary Environmental Management Plan and they form part of the contract documents. The EMP is primarily a document that identifies requirements, processes and procedures.

Requirements and process covers:

- Identifying resource consent requirements
- Other requirements, eg contractual or from landowners
- Responsibilities for environmental management
- Processes for preparing SEMPs

Project	Authority	Consents required	No. of conditions
Te Apiti	TDC	1	19
White Hill	SDC	1	30
	SRC	4	38
West Wind	WCC	1	114
	GWRC	13	224
Project Hayes	CODC	1	90
	ORC	10	124

- Training
- Handling public feedback
- Common requirements such as working hours, noise standards, handling of hazardous substances
- Inspections, record keeping and reporting
- Contingencies

Procedures cover:

- Identification of sediment and erosion control measures
- Identification rehabilitation requirements

The EMP is a document that is intended to live in the site shed.

The SEMPs are designed to be documents that live in the cab of the digger or the Ute. They prescribe what is going to be constructed and how things are managed.

They identify the following:

- Who is responsible for the site works
- A programme to undertake the works
- Any special environmental considerations
- The erosion and sediment control measures to be used
- The availability of rehabilitation materials
- Rehabilitation schedule
- Monitoring requirements
- A plan

Monitoring adherence to the EMP and resource consent conditions is done by:

- Regular checks by contractors and the wind farm developer
- Independent review of compliance with EMP and SEMPs
- Regular inspections by councils in conjunction with the wind farm developer with the objective being a collaborative approach

While the industry accepts the need for good environmental management, industry sources say that the consent conditions imposed on projects do not allow for this to be done in the most effective manner. The four projects listed in the table above showed considerable variation in the number of consents required and the number of consent conditions. The developer concerned also felt there appears to be a snowball effect of consent conditions from a previous project being added to new projects. There is also a view that wind farm developments are being set conditions that have been developed for other activities such as earthworks for subdivisions and that these conditions do not reflect the nature of the potential effects of wind farm development. Industry sources say that it is an opportune time for wind farm developers to prepare a set of model conditions through NZWEA and involve councils in the development and review of these conditions and that such an action would have significant benefits to the industry. Of particular note in the table above is the duplication between the GRWC and WCC.

An example of a resource consent application, lodged by Meridian for its proposed Mill Creek wind farm in the Ohariu Valley near Wellington is available at

http://www.meridianenergy.co.nz/OurProjects/MillCreek/Resource+consent+application.htm

Making sense of conflicting information

By Graham Moor, President, Roofing Association of New Zealand

I was fortunate to give a presentation at this year's BOINZ conference in Auckland and afterwards met and discussed with some members the wonderful "situations" we all experience at times.

As I emphasised in my presentation, building officials are just the "police force" for the industry and are the last line of defence for the consumer.

Given the huge amount of conflicting information available, it is surprising there are not more conflicts on site. That said I don't believe we are seeing the right results out there all of the time.

As chairman of the RANZ Technical Committee I certainly come across some beauties. By way of example I have had plenty of queries recently regarding the direction of lay with regard to roofing underlays. E2/AS1 requires that underlay is run horizontally (parallel with the gutter fascia). The New Zealand MRM Code of Practice for metal roofing states that the underlay can be laid horizontally or vertically (parallel with the barge fascia). The two largest manufacturers of roofing underlays state either direction is acceptable. Certainly with commercial application it is nigh on impossible to run underlays horizontally and achieve the aesthetic result required.

Yes I know you are thinking that function is the priority, and you would be right. Given the purlin spacing on commercial work, distortion is unavoidable when laying horizontally. The other point I raise is that the roofing underlay is not there as some sort of secondary roof! It is naïve to believe otherwise. The average dwelling and its underlay will have 2-3000 holes in it where roofing fastenings have penetrated the underlay. Some types of roofing underlay have shrinkage issues and if used horizontally it is not unknown for the product to separate at the lap and expose the underside of the roofing. The question I offer is "Who is right?"

Fortunately there still exists an element of trust that operates in our industry. Obviously the building inspector checks the structure prior to the installation of the roofing. After that there is a reliance on the roofer to carry out their work as per the drawings, specifications, best trade practice and always exercising a duty of care – whew! In nearly all cases that is what happens. Obviously the inspector will not be there throughout the entire roofing process. Do they need to be? No. Does the consumer expect them to be? Probably. What level of height safety training has the inspector got? Probably none. With all due respect does the inspector know what he is looking at? Given that the roofing could be concrete, clay, steel, aluminum, zinc, copper, stainless steel, rubber, liquid applied membrane, asphalt or timber, how can the inspector know all the idiosyncrasies of all these products and their interaction with other materials?

Add to the pile of information the wonderful documents that the government and industry have foisted onto us; E2/AS1, The Building Act, BRANZ documents, various guidelines, Code of Practice, Standards and a good measure of ministerial whim. Stir all that together and you should arrive at a coherent and logical result for all concerned!! We know this isn't the case or the Department of Building and Housing would not have to make determinations.

None of us have all the answers but two-way communication is the best way forward.

BOINZ CEO Len Clapham presented at our June conference and is, like RANZ, keen for open dialogue to be established between the two organizations so that both sectors find some common ground.

Remember we are all after the same result – weathertight, compliant building.

ELECTION YEAR '08 QUOTE:

"Peter Fraser used to show that running the war effort wasn't making him big-headed by popping out to inspect leaky roofs on state houses."

Source: The Half-Gallon Quarter-Acre Pavlova Paradise, by Austin Mitchell, p. 25 (1972).

Peter Fraser was Labour Party Prime Minister from 1 April 1940 to 13 December 1949

A license to operate

Kelvin Newman, Prime Building Compliance

Picture this: You are a young 16 year old and have just gained your learner's drivers license.

Question: Does this mean you are competent to drive or does it allow you to continue to practice and become competent at driving?

Considerable discussion has taken place on the subject of training and competency of staff, especially around how training ties to proof of competency for continued Building Consent Authority Accreditation.

In today's workplace staff must demonstrate that they are competent to perform their job and training enables them to become competent. You cannot rely on training alone. Making someone competent is heavily reliant on the workplace having a good induction system in place so that when a new person joins the team their transition is seamless.

Coaching and mentoring of new people is key to ensuring staff members become competent and have a critical training pathway that continues to grow and enhance competency. It's the same when a staff members moves into another area of work or is promoted. Employers need to ensure they equip people to succeed and provide the support in terms of training and on-site coaching, not just leave them to it which happens more often than not.

So, what should you do?

1. Do not rely on training to prove competency.

   Training should be considered as the support for competency. Just because training has been undertaken and completed it doesn't mean that competency has been achieved. However, this does pose us a difficult question. How do we decide on the type and level of training to provide for people? Perhaps we need to take a look at the issue in another way. Perhaps we need to look from the bottom up.

2. Start with the position description and what the role will entail.

   Decide on what competencies are required for that role and how it is proposed to prove competency for that role. Think about core organizational and job specific competencies.

3. Identify and liaise with the Training Academy on what components of the competency they can fill and provide training for.

4. The next step is to consider alternative training to fill the gaps.

Consider how the completed training will be proven to meet the requirements of the competency for the BCA requirements and sign off by IANZ. Training alone cannot do this. We need the training follow-up plan. This really gets down to showing that the training component of competency requirements have been audited, tested and results recorded. This is a big task considering the amount of competences required for the regulatory functions we undertake in our day to day roles. The other issue to deal with is the variance between individuals and BCA s as to what is considered as competent.

We think it is time for us to have a united approach to the issue. Beryl Oldham (North Shore City council) and Rose McLaughlan (NZ Building Inspection and Training Ltd) developed a competency framework that fits into BCA Accreditation process in 2007. The Institute has supported this framework and uses it to assess those wishing to become licensed building control officials. If you haven't already done so, this document is well worth a read and Beryl and Rose are more than happy to discuss the contents and how it works with you, so please give them a call or view the document on the institute's website.

BRANZ

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BRANZ Appraised

Appraisal No.1234 [2008]

Training for sustainable futures

New continuing professional development requirements for Plumbers, Gasfitters and Drainlayers, a newly established BOINZ training academy, RPL, a new Building Officials qualifications structure, an increase in the number of apprentices, and even the licensed building practitioners scheme and more – where is all this heading?

Though it could be said that the rationale for establishing the LBP scheme is allied to the problems with weathertightness, licensing is part of a bigger issue, an issue that encompasses all these initiatives.

It’s an issue that has ramifications for the labour force as great as those faced by workers during the Industrial Revolution. The difference between then and now is that we have a much bigger population, and this is creating many more questions than we have answers to.

So what is the issue and how does it concern these initiatives? It is that as technology has enabled us to produce more consumables we are now told that in doing that we use more energy of the wrong kind, that this energy use cannot be sustained and that to find alternatives we need a Sustainable Revolution that depends on discovering new technologies, developing a workforce skilled enough to embrace change and implement it through higher education and better communication.

For example, the need for alternative energy supplies such as wind farms and wind dams require a specialised highly professional workforce of engineers. Where will they come from? Regular public opposition to these kinds of renewable energy sources suggests that few qualified people will be attracted to set up these new industries in New Zealand. This perception must change. According to a Tertiary Education Commission report “the NZ economy is currently based on commodity exports but as the economy changes we need to shift our focus from a reliance on commodities towards more high value and knowledge-based products” p. 38[1]. The report also says that our workforce does not possess skills at the higher level even in the trades occupations let alone the scholarship needed in research and development to make significant strides towards sustainability. We have skills shortages in these occupations too.

What is needed is a change of mindset, not only on the part of the public towards alternative renewable energy resources, but also at other levels, to encourage tradespeople to take up initiatives such as those mentioned above and go on to complete higher level qualifications and new entrants to the sector. The release in July of the school leavers report has some concerning statistics. The report says, according to *The Dominion Post* (24 July 2008) that “a third of all school leavers dropped out last year without getting level 2 NCEA (the minimum qualification needed for many trade training courses and modern apprenticeships) and nearly one in five failed to get level 1 NCEA” (the equivalent of School Certificate as the most basic qualification).

[1]For more information about the TEC report Tertiary Education Strategy 2007 – 2012 (incorporating Statement of Tertiary Education Priorities 2008 – 2010).go to: **http://www.tec.govt.nz/templates/standard.aspx?id=448** or go to **http://www.skillsstrategy.govt.nz/assets/Uploads/NZSkillsStrategy08.pdf to view the NZ Unified Skills Strategy 2008-2012.** or **http://www.skillsstrategy.govt.nz/**

PLANNING FOR 2009

The Training Academy is looking forward to 2009 with great anticipation as next year will see the delivery of the new national qualifications in Building Surveying (Small Buildings) and Building Surveying (Medium – Large Buildings). The Training Academy has already indicated its support of the training provider who will be delivering these qualifications and we look forward to a successful year for those undertaking the new qualifications.

As well as working with the training provider of the national qualifications it will be business as usual. We are looking at strengthening our programme with the development of new training resources in the Performing category and the ability to be more accessible for those wanting training.

We know we can't please everyone - however we continue to try

To allow more regional delivery we have confirmed key locations for delivery of core training. However, on doing this, it doesn't solve the problem of having the training delivered to regions which require it. So by freeing up some space in the planned public calendar we have allowed for extra "in-house" courses to be delivered in the regions. We ask those who are involved in co-ordinating training to contact the Training Academy directly so that we can assist you in ensuring we can come to you. Early planning will assist with smooth delivery timeframes and the meeting of training needs.

In the next edition of Straight Up, we plan to advise you of our new exciting initiatives planned for the Training Academy.

Any questions on the 2009 calendar or any other training matter may be directed to Fiona Street – training@boinz.org.nz or phone (04) 473 6003.

HOW CAN I GET THAT BEAR?

BUILDING OFFICIALS BEAR AKA B.O.B

Need a talking point/ mascot/something less than functional for the office?
A cute toy for the kids?
Something to present to staff in appreciation of special work done? Let me introduce you to B.O.B. He is cute, cuddly and knows when to keep his mouth shut. B.O.B. is a reminder that you are not alone, there are other building officials out there. Best of all, all profits from B.O.B. sales go the the BOINZ charity for the year.
Buy a B.O.B. today, available online from www.boinz.org for only $25.00 +courier fees of $3.00 (discount for purchases of 10 or more)

IT'S STRAIGHT UP'S 5TH BIRTHDAY – NEW ZEALAND'S ONLY NATIONAL MAGAZINE FOR BUILDING OFFICIALS.

Be in to win! Just write a 500-word article on any building construction related topic, lighthearted or technical and you'll go in the draw to win **Your Very Own B.O.B.**

(All entries ©BOINZ, open to everyone except AP Roover, Flinty Sparks, Darrell Spout and Chippie Block)

As Joy Cowley wrote in her Foreword to the book, Sleeping Dolphins True tales of the Marlborough Sounds (1999), *"Four years ago, some Sounds folk had a weekend writing workshop and realised the simple truth, that everyone is a potential author."*

Continuing Professional Development - Fact or Ficton

The Institute recently undertook a road show around the regions to discuss the new national qualifications and other Institute initiatives. One of the main points of discussion that arose in every region was the CPD programme and the apparent lack of understanding of what and how the CPD programme works. This feedback has certainly cemented some of the comments we have received over a long period of time and we have been quietly working in the background on policies and procedures so we can make it more obtainable for members. Any amendments will take effect at the beginning of 2009.

In the meantime, we would like to clarify some of the misconceptions that people may have.

Firstly, it must be reiterated that the CPD programme is not compulsory for members to retain their membership. However, it is required for licensed building officials and accredited building surveyors.

Secondly, the 30 CPD points required per year has been said to be unobtainable. We have asked for proof of this to be given to us in order to substantiate the claim of 30 points per year as being unattainable but as yet no one can provide any data, also on the evidence we have through those members who have requested CPD certificates, this is not the case. If you look closely at what is included this is easily achievable and we have provided two sample logs.

Sample Log 1

Name: Bob Official	**Period:** 1/1/2008 – 31/12/2008
Training Academy three one day events *(4 points per day)* • Building Consent Vetting • Front-Line • E2	12 points
Training Academy one three day event *(3 hours duration)* • Getting Started in Building controls	12 points
Attended 6 BOINZ branch meetings *(3 hours duration each)* • March • May • July • August • September • November	9 points
Reading technical publications, including Straight Up *(1 hour per month x 12 months)*	4 points
TOTAL	37 points

Sample Log 2

Name: Bob Official	**Period:** 1/1/2009 – 31/12/2009
Training Academy three one day events *(4 points per day)* • Building Consent Vetting	4 points
Training Academy one three day event *(4 points per day)* • Getting Started in Building controls	12 points
Successfully completed one Unit Standard of up to 10 Credits	10 points
Attended 6 BOINZ branch meetings *(3 hours duration each)* • March • May • July • August • September • November	9 points
Reading technical publications, including Straight Up *(1 hour per month x 12 months)*	4 points
TOTAL	39 points

As you can see, CPD points are achievable and will be more achievable once members start undertaking and completing Unit Standards for the new national qualifications for building surveying.

We also recognise and wish to encourage in-house training that is undertaken all over New Zealand. This is very important for everyone to ensure they are being upskilled in work place specific policies and procedures and also when the opportunity arises in areas of specialism.

Therefore, we have included in-house training into the CPD programme. However, there are guidelines and criteria that the Training Academy needs first before it can be approved CPD. As with our own training, we believe that if organisations can follow the same principles that we use, then it should be approved training.

The Training Academy will be posting the revised CPD programme policies and procedures on the website for consultation shortly.

Is everything according to Plan? Whose Plan is it anyway?

A common trend today is the purchase of property at the pre-construction phase, or to put it another way, buying property off the plan. When considering such an investment it is critical to conduct a comprehensive due diligence including ensuring an independent, qualified person verifies the plans.

In this article I consider the implications of purchasing property 'straight off the bat' from building plans and identify some potential pitfalls.

DEPOSIT: If a deposit is paid and distributed to the vendor prior to title being transferred the purchaser is effectively an unsecured creditor. The vendor is therefore free to apply the money wherever it chooses, including to other developments and not to the development that concerns the purchaser. It is important to ensure the deposit is held in the vendor's solicitors trust account and cannot be disbursed until settlement of the purchase of the property has been completed – so the purchaser actually has title before their money is released.

DETAIL: The purchaser would be wise to make sure that the agreement requires the developer to build the property substantially in accordance with the drawings and specifications attached to the contract and approved by the purchaser which must be sufficiently detailed. To avoid disputes later, full details of fixtures, fittings and furnishings should be included, for example, if the price includes a fridge the brand, description, make, and model should be specified. The same applies in respect of specifications for materials. If the vendor is supplying bathroom tiles, the colour, shape, size and whether the tiles are individual tiles or sheets should be confirmed.

Vendors often include clauses in the contract that allow them to change the plans at their discretion, including rearranging or altering the size of apartments. These changes can materially affect the purchasers use and enjoyment of the property and an appropriate cancellation clause should be inserted for the benefit of the purchasers.

It is also important to specify any rights the vendor has to substitute materials and appliances that are unavailable when needed. The vendor should be required to substitute materials and appliances that are of no less quality and the price of the property should not be affected.

The size of the unit must always be specified and the purchaser should make sure it is an acceptable size (measuring the area on

the ground is often useful to get an idea of the actual size) and does not include the common areas.

If the size of the unit reduces by more than an agreed amount, say 3%, on final measurement, the purchaser should have the right to cancel the agreement as a reasonably small reduction in size can have a huge impact on the use of an apartment. The purchaser should also have the right to reduce the purchase price by the equivalent percentage.

The agreement should specify the easements to be registered against the property and the terms of those easements so the purchaser knows who will have rights to all aspects of the property.

OBTAIN WARRANTIES/ GUARANTEES: It is critical that the vendor builds everything that it is obliged to build. For example, if a purchaser buys the only penthouse in a development and the vendor changes the plan for the balance of the development resulting in all of the units, except the penthouse, having a common bathroom facility as opposed to individual bathrooms, this would clearly affect the quality of the building and would therefore impact heavily on the value of the purchaser's penthouse apartment even though the penthouse may have been built in accordance with the requirements of the contract.

Similarly, the Vendor should be obliged to complete, but also the common areas especially where there are special attributes such as tennis courts, gyms and swimming pools. Settling should not be completed until those facilities have been constructed.

Guarantees should be sought from all relevant parties including builders, architects, and designers to guarantee quality and that the workmanship is in compliance with the Building Code. The vendor should receive guarantees and warranties from its suppliers (for example plumbers, electricians, appliance manufacturers) which should be assigned to the purchaser on settlement.

It is important that the vendor complies with all statutory requirements, including buildings consents and any other obligations. Purchasers' should be aware that it is an offence under section 364 of the Building Act 2004 for a vendor to allow a purchaser to take possession of a residential unit before a code compliance certificate (CCC) has been issued. This provision may be specifically contracted out of by vendors but alarm bells should start ringing if a vendor inserts such a clause in the agreement.

A Purchaser should always get its own independent valuation of the property as it is not always wise to rely on the vendor's valuer.

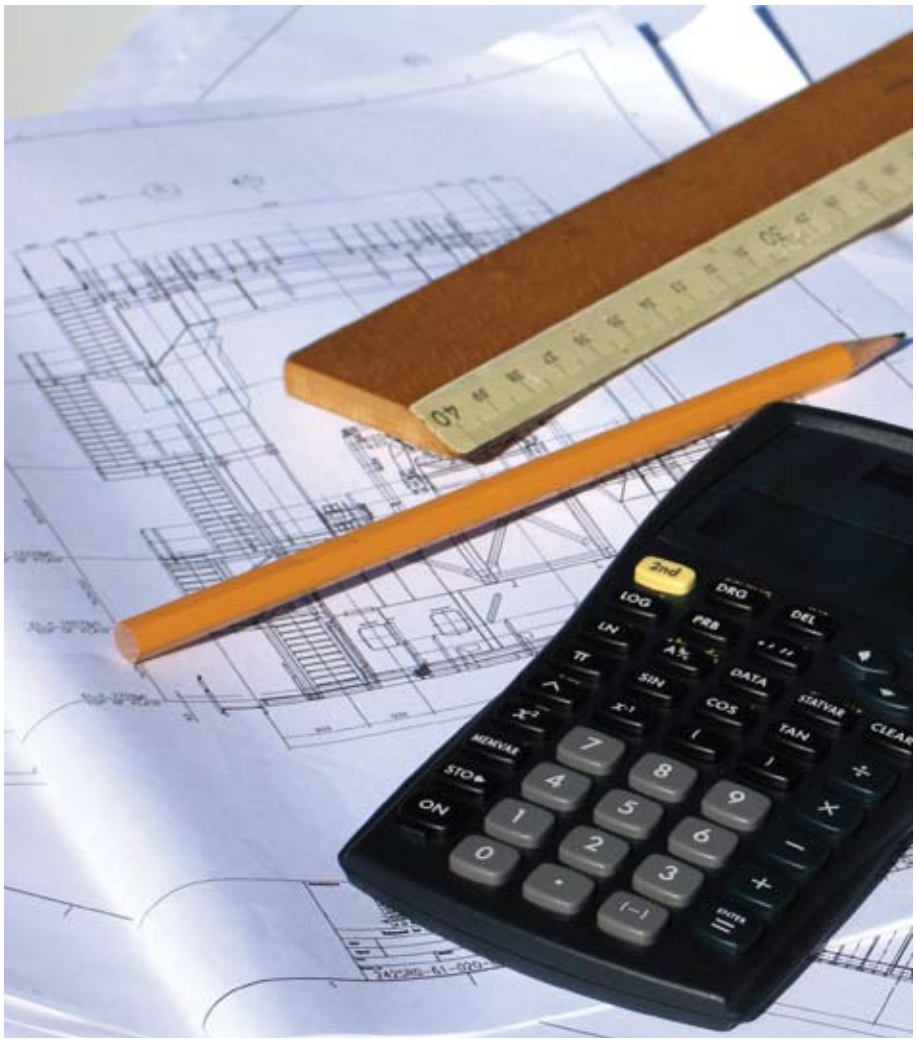
Correcting Defects: Purchaser's should retain part of the purchase price on settlement to ensure the vendor rectifies any defects in the property.

A maintenance period of at least 60 days should also be included in the agreement so the purchaser has the right to require the vendor to remedy any defects which are present in the premises. These defects should not be limited to just defects in individual apartments but also defects in common areas. The vendor must be required to remedy defects promptly and if not remedied within a reasonable time the purchaser should be entitled to contact other contractors to fix the problem and recover the costs from the funds retained on settlement.

RIGHT TO CANCEL: It is important that purchasers have the right to cancel the agreement if the vendor fails to complete the development by a particular date or where matters of quality are unacceptable. Purchasers should obtain legal advice in drafting such clauses to ensure they can be relied on.

A dispute resolution process should be agreed upon which should be quick and should deal with the various arbitration issues.

The above considerations demonstrate only some of the precautions that purchasers should take when purchasing off plans. The harsh lessons in the current market should reinforce to purchasers the importance of undertaking a rigorous due diligence process and seeking independent legal advice before entering into any property purchase.



Chris Moore
Partner
Meredith Connell

High hopes – building inspection technique delivers the goods

Due to the hidden nature of buildings, we all place huge reliance on building diagnostics techniques to understand building weathertightness performance. These techniques are designed to inform and therefore improve decision making throughout a building's life. The results of a recent study shows that a new inspection tool has taken a serious step forward.

This study was conducted by Project M, a cross-disciplinary research initiative led by Ian Holyoake from Moisture Detection Ltd, on over 700 homes in New Zealand. Its aim is to analyse 1000 homes to better understand how to measure building performance accurately over time. The analysis tool being used is the patented Mdu Probe System – taking timber strength readings, timber samples, and regular moisture contents using the Mdu Probe at approximately 70 locations per house. The Mdu Probe System results have now been compared to other investigation processes from the same buildings. It was found that the Mdu probe (in comparison with other non-destructive systems) identified more accurately in every case areas of timber damage and moisture ingress. By contrast many of the areas other tools claimed were defective and been condemned were found to have good performance by using the Mdu probe system. Incorrectly analysing performance often paints a bleak picture and this can lead to inaccurate or incomplete conclusions and a failure to adequately locate and isolate what the real problems are.

Themo-imaging camera inspections were carried out on a number of homes both before and after the Mdu Probe System assessment took place. Cameras failed to pick up problems, or show good performance reliably. In house 710 with the thermo-imaging camera first, its analysts failed to identify over 10 locations of structural or moisture problems – giving the house an all-clear. In house 433 the thermo-imaging analyst was shown the 4 locations where moisture ingress and timber damage had been shown to be present, and they failed to pick up any positive discernible pattern in those areas. Three areas were also falsely identified to have a problem when in fact there was not.

Gib Scanning was done at the same time and location as the Mdu Probe System information was collected to over 37,000 locations. The Scan results when analysed were no better than tossing a coin in problem identification. In locations where the scanner indicated an 'acceptable' range, approximately 50% were found to have either higher moisture levels or timber damage was present. In contrast the locations where the scanner indicated an 'unacceptable' range, approximately 50% had acceptable moisture levels. Both scanning and cameras should not be used as a 'first step' in investigations.

Point-in-time assessments either missed key issues as they are limited in nature, or exaggerated problems found. A DBH Determination point-in-time assessment of House 382 passed the house with flying colours and could not find a single issue. However 2 months later, the Mdu Probe System identified 4 locations of total rot, and 14 locations of raised moisture levels. Similarly a WHRS point-in-time assessment of House 802 suggested approximately $15,000 of repairs were needed on a building. However, The Mdu Probe System later found much more damage, and would have prepared the owner to where the repair bill now rests. In contrast, a private point-in-time assessment of House 814 condemned the house recommending a reclad. The Mdu Probe System later found the house had treated timber, most areas were performing and only had isolated and minor issues. The house is now being gradually repaired and monitored at much less cost.

The Mdu probe has shown its credentials and is sure to become the preferred diagnostics tool. It provides an accurate and reliable picture of a building's condition and ongoing performance.

The Mdu probe is being used for determination assessments, WSG inspections, CCC reasonable grounds evidence reports and as a QA program for reclads and repairs. For more information on the Mdu probe consult your NZIBS or BOINZ weathertightness member or visit **www.moisturedetection.co.nz**. Houses referred to above can be viewed on **www.bnet.org.nz** in secure mode.

Charlie's Electricians

December 2007 quarterly statistics show that since the Modern Apprenticeships Scheme was introduced in 2000, 4243 have successfully completed their apprenticeships and 10,808 are still in training. Of these 89.8% are men and 10.2% are women.

A big difference but as Lianne Dalziel said in her 2006 speech, "Give Girls a Go", over the last quarter of a century there have been significant changes to New Zealand's labour force and women now make up almost 50% of all those in paid employment.

An "Action Plan for New Zealand Women" launched in 2004 explores ways to increase women's participation in Modern Apprenticeships. This includes looking at ways to break down barriers to women's participation, increase promotion of and access to information on Modern Apprenticeships and meet the needs of under-represented groups".

And that's great. But certain other changes have taken place in society over the past quarter century and its timely to weigh them up in this context, such as continuing reports of girls staying longer at school than boys and leaving with more qualifications.

A quarter of a century on the time seems about right now to question whether single-gender-based programmes focused on women in particular need to be viewed with some caution. Ms Dalziel also said that "equal numbers overall does not mean equal distribution and certainly does not mean equal outcomes". In that respect then Government programmes with an emphasis on giving girls a go should be matched with the same rhetoric for boys, given the educational statistics. What if the situation Ms Dalziel describes for girls now is reversed 25 years from now, for boys? Unlikely you say? Well, who knows. Positive reinforcement comes from being recognised, irrespective of gender, and recognition should be shared equally, particularly in Government messages, otherwise one group can become invisible at the expense of another, especially after a quarter of a century spent focusing on one group.

"I remember" said Ms Dalziel quoting a memory from about quarter of a century ago (to do with sexist language as it was commonly referred to) "when we used to debate stupid topics about whether job titles were politically correct or not – I think it started off with a manhole cover being referred to as a utility cover. Anyway there was a sensible contribution to the debate by an educationalist who said that it did matter if you used the word "man" in words like fireman or policeman, because in order to think about a career you needed to be able to imagine yourself doing it. And images of men reinforced by the name did exclude girls from dreaming one day they would be a firefighter or a police officer. Maybe we need a movie called Charlie's Electricians".

There's no worries with the word "builder" or "building official" though is there? They are totally non-sexist words – unless you call yourself "Bob the Builder".

There are opportunities like never before for men and women to fill skill shortages in the trades. But today's workforce is very competitive and Government programmes promoting one group are now questionable. Remarkably, say those who know her, Pippa Jones "took up a building apprenticeship early last year, after throwing in her job as an interest rate dealer in the ANZ financial markets" (The Dominion Post 26 July 2008). So, a quarter of a century later can we still say there is discrimination against women taking up non-traditional occupations? Are we ready yet to say that the Ministry of Women's Affairs has done the job and that to reflect on our society today, with both parents often working, both sexes in the next generation should be our concern now? Then perhaps men would be start to take responsibility for a few things – if only we'd let them. If you're a Dad reading this would you feel comfortable asking your employer for a day off to look after your child? Who is being discriminated against here? We need a Ministry of Men's Affairs to rescue them and a Ministry of Youth Affairs charged with promoting young people's interests – males and females.

And who assumed it was the Government's responsibility to promote single-gender-based programmes and for how long? Will advertisers take any responsibility for portraying women in certain roles? With boys doing less well at school do we need programmes targeted at them to correct this imbalance so that they can compete with girls for trades and other jobs? Or will they become like the lost boys in Peter Pan – invisible? Not so Michael Childs, he "dropped out of his final year at high school, joined a Whitireia Community Polytechnic course last year and now works full-time as a plumber. He used Aotea College's Gateway programme to secure work with his current employer, then withdrew from Gateways at the end of 2006 after gaining level 2 NCEA. He joined the plumbing course, studied hard and is now enjoying his time in the workforce" (The Dominion Post 24 July 2008). He obviously has the x-factor – he's a self-starter – but what about those who need to learn what self motivation can do for them? These programmes and more like them need to promote today's "modern apprentices" (young people and both sexes) as self-starters.

Ms Dalziel's speech is available http://feeds.beehive.govt.nz/speech/give+girls+a+go--+women+modern+apprenticeships

HR Service now being offered by the Institute

HR DIVISION EMPLOYER SERVICES

HR Division is a building industry recruitment management company based out of the National Office of the Building Officials Institute of New Zealand and was founded in 2008 to assist those in the building industry to find employers and employees.

HR Division recruits for full-time permanent positions and short-term contract positions on behalf of local councils and the private building sector.

HR Division recruitment and selection process involves rigorous assessing of a candidates work skills and aptitudes, skill-testing, relevant experience and attitude:

Services include:
- Recruitment and selection
- Contract negotiation
- Reference checking
- Advertising

HR DIVISION EMPLOYEE SERVICES

HR Division is a new initiative by the Building Officials Institute of New Zealand to assist both members and sector organisations to find employers or employees.

HR Division is a building industry recruitment management company based out of the National Office of the Institute and was founded in 2008 to assist those in the building industry to find employers and employees.

HR Division recruits for full-time permanent positions and short-term contract positions on behalf of local councils and the private building sector

HR Division is there to assist members in developing their career pathway. It is important that people take responsibility for their own direction in their professional life. This is accomplished through ongoing training and seeking the right roles to further enhance your skills and experience so that you are seen as preferred candidates by prospective employers.

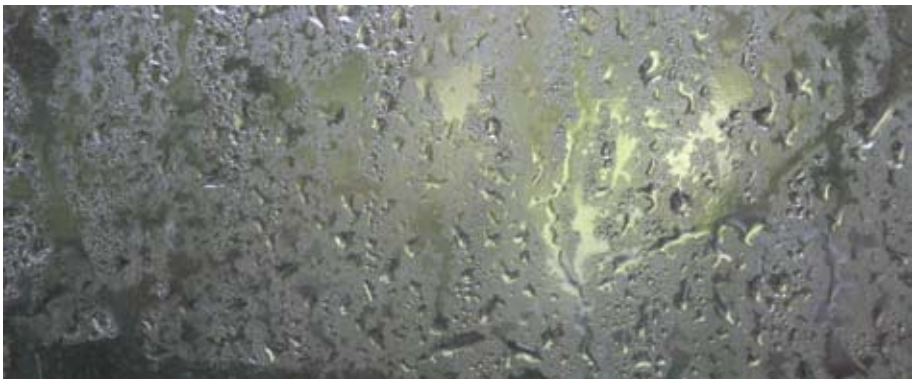
All enquiries will be treated with the strictest of confidence.

CONTACT: Graham Street, HR Division, Building Officials Institute of New Zealand

P: 00 64 4 473 6003 F: 00 64 4 473 6004 M: 027 5566 235 E: grahams@hrdivision.org.nz

Microorganisms encountered in buildings

The presence of fungal or bacterial growth in buildings is always the result of moisture.



Biodet uses the following techniques to investigate the microbial status of a building:

- Culturable air sampling
- Non-culturable air sampling
- Swabs
- Microscopic examination of Sellotape® swabs and bulk materials.

Culturable air sampling involves impinging microbes from a known volume of air onto specialised media to grow bacteria, Actinomycetes and fungi.

Non-culturable air sampling or spore trapping involves trapping the spores from a known volume of air onto a specially prepared microscope slide. This method picks up spores of the toxigenic fungus *Stachybotrys* as well as a range of other fungi.

Other methods for investigating leaky homes include:

- Carpet swabs. A carpet may get wet either due to a persistent leak and can be cultured for bacteria, Actinomycetes and fungi.
- Damp building materials such as building paper, fibrecement, Gib board backing paper and timber can also be examined.

INTERPRETATION OF RESULTS AND STANDARDS

There are no standards for this type of testing. Biodet has been compiling a database of spore trapping data since September 2003 from known leaky buildings compared with non-leaky buildings. Our categories include homes, commercial premises, hospitals, schools and the outdoors. This database appears to be showing a clear link between leaky buildings with reported fungal-related symptoms and the presence of certain fungi, especially Stachybotrys.

The **Public Works and Government Services of Canada** states that microbial growth within a building and the confirmed presence of toxigenic species such as Stachybotrys is not acceptable.

The **American Congress of Government Industrial Hygienists (ACGIH)** advises that active fungal growth in indoor environments is inappropriate and may lead to exposure and adverse health effects.

The following interpretations can be made:

- All species and levels should be compared with baseline levels.
- All species and levels should be compared with outdoor levels allowing for seasonal variations.
- High spore diversity suggests different sources of the various fungal species.
- A 10-fold increase in one particular fungal spore in a suspect area compared with a non-suspect area may indicate a site of fungal amplification.
- Mycelial fragments are considered evidence of fungal amplification and of recent microbial growth.
- Spore clusters are evidence of recent microbial growth.

Health-related responses that might result from inhalation of bacteria and fungal spores include allergies, toxigenic responses and infections. The fungus Stachybotrys is extremely toxic, carcinogenic and immunosuppressive.

Certain people are more **susceptible** to fungal spores than others:

- Young children and the elderly
- People with lung disease
- Immunocompromised individuals
- Heavy smokers
- Heavy drinkers
- People on a poor diet
- Asthmatics

REMEDIATION

Buildings with intrusion of moisture and subsequent fungal growth need to be remediated. The goal of the remediation is to remove or clean contaminated materials in a way that prevents fungi from entering non-infected areas, while protecting the health of workers performing the remediation and those living or working in these buildings.

Direct Use of Gas - DUOG

There are approximately 250,000 homes connected to natural gas in New Zealand and in excess of 30,000 using bottled LPG. In total therefore around one in four New Zealand homes utilises this powerful, clean and efficient fuel for their home heating and cooking needs. Why is it not more?

Certainly there are great lifestyle benefits with immediate and powerful heating systems, no fuss gas fireplaces, space saving and efficient hot water systems that produce on demand at user selected temperatures and cooking control and power that only gas can provide. The end use efficiency of gas is also without question. Even with New Zealand's high proportion of renewable hydro electricity generation, the effective use of our natural gas resources and the minimisation of greenhouse gas emissions are enhanced if gas is used directly in the home.

As most New Zealander's are only too aware, our electricity system can only just cope with the current levels of demand. In dry years, which seem to be reasonably regular, there are repeated concerns about the ability of the system to cope and the resultant power saving measures are a costly impost on the productive sector of the economy. Future generation capacity and improved end use efficiencies are often seen as the saviour; however there are also continual additional pressures on electricity load from new technologies such as heat pumps and flat screen televisions.

A significant increase in gas use can displace the "low grade heating" load from electricity which can then be used for the functions for which it is most valuable such as lighting, computers, home entertainment and the rest of the myriad of high technology uses for which electricity is essential. The national grid would also benefit in that load displaced would defer investment in this already maximised infrastructure.

So why is gas not more popular?

Partly through ignorance of the national and individual benefits, partly through the cost structures within the gas industry and partly through the gas industry and local government complexity in actually delivering solutions.

The recent hysteria over carbon emissions has skewed the market away from gas as it is sometimes blighted with the "fossil fuel" tag. This is despite the real facts that clearly show that gas, used directly in the home, is environmentally responsible and an efficient use of an excellent energy resource.

New Zealand has enjoyed cheap electricity for many years. Gas has always been an optional fuel and has therefore had to deliver value to the customers, both economically and also in enhanced lifestyle. A gas home will be more cost effective to run if the use of gas is a great enough proportion of the total energy load to cover the cost of two utility connections…. the more you use the better it gets. However, the second fixed utility charge is seen by many (rationally or not) as a major disincentive to being connected to gas. In some cases this fixed cost is over $500 per year and some electric utilities will charge an electricity premium if you do not use their electricity for hot water.

Obtaining a gas connection and appliance for your home can also be an expensive and frustrating experience. Before the energy market deregulation of the 1990s, natural gas utilities were vertically integrated companies that offered a "cradle to grave" solution for their customers. One point of contact would provide the customer with advice on the appropriate solution for your needs, the gas connection, the appliance installation and commissioning and the energy supply and billing. They would also subsequently maintain your appliances as required.

Post regulation, these functions are generally performed by various independent parties and in many cases it is simply just too hard for the customer to navigate these processes, get the right advice and to be offered a "solution" and a reasonable price.

Every step of the chain expects a full margin for the work that they do. In the pre-regulation days, the bundling of the solution was more cost effective for the consumer as parts of the supply chain were not fully costed into the total solution.

Trades capacity is also sometimes a constraint. Unfortunately New Zealander's are not renowned for preemptive servicing of appliances or planning for the next winter season and there is often a rush of demand for gas work in the late autumn and early winter that cannot be satisfied with the trades base available. It is also essential that the trades are kept current with the latest technologies and that they are competent and efficient at installing and servicing appliances

So what would make a difference and encourage more homes to connect to gas and allow the benefits to accrue to themselves and New Zealand as a whole?

Firstly strong leadership from both central government and local government is required to position gas as a solution for households and SME's for their heating and hot water requirements. The multiple layers of consenting and bureaucratic drag needs to be minimised for both gas connections and appliance installations. Gas connections should be positively supported as key energy infrastructure.

The members of the gas industry need to develop systems that work for customers. Too often the systems seem to be created for the companies own purposes but miss the essential requirement of delivering an effective outcome for the customer. The customer needs to be given a solution that meets their needs not a fist full of telephone numbers and left to sort it out themselves.

The industry needs to be clear about the value of the gas connection for the customer and to sell the gas story. This is a competitive market and the gas industry needs to compete. There need to be billing structures that accommodate high, medium and low users. A low user now can easily become a high user later but will never use gas if they are not connected at all.

The trades sector needs to be competent, cost effective and customer focused. Their role in delivering the solution is getting more important and this needs to be reflected in their training and professionalism.

Overall the gas industry, in all of its parts, needs to take responsibility for delivering the solutions to our customers… no one else will do it for us.

Ray Ferner
Managing Director, Rinnai New Zealand Ltd

EVENT CALENDAR - 2008

SEPTEMBER

4/5 September	Blueprint 4 Success – Leadership Development Programme – **Rotorua**
8-12 September	Getting Started in Plumbing Inspection – Water Supply and Sanitary Plumbing (up to Category 3 buildings) – **Auckland**
16 September	Building Consent Vetting – **Hawke's Bay**
16 September	Compliance Schedule Writing – **Auckland**
17 September	Building Warrant of Fitness Auditing – **Auckland**
22-24 September	Complex Water Supply/Sanitary Plumbing (category 3 buildings and over) – **Auckland**
23/24 September	Certificate in Building Controls Administration – **Auckland**
25-26 September	Getting Started in Building Controls – Site Inspection – **Christchurch**
25 September	Skeleton of the House – **Nelson**
29 September	Building Consent Vetting – **Hamilton**
29 September	Frontline Training – **Dunedin**
30 September	E2 Weathertightness – **Dunedin**

OCTOBER

1 October	Compliance Schedule Writing – **Rotorua**
2 October	Communication Skills – **Whangarei**
2 October	Building Warrant of Fitness Auditinr – **Rotorua**
3 October	Conflict Resolution & Mediation – **Whangarei**
6-10 October	Getting Started in Plumbing Inspection – Water Supply & Sanitary Plumbing (up to Category 3 buildings) – **Dunedin**
13-15 October	Getting Started in Building Controls – **Auckland**
16/17 October	Getting Started in Building Controls (Site Inspection) – **Auckland**
20 October	Assessing Alternative Solutions – **Wellington**
21 October	NZS3604 – **Wellington**
21/22 October	Certificate in Building Controls Administration – **Rotorua**
23 October	Skeleton of the House – **Dunedin**
30/31 October	Getting Started in Building Controls (Plan Processing) – **Auckland**

NOVEMBER

5-8 November	Getting Started in Plumbing Inspection – Complex Water Supply & Sanitary Plumbing (Category 3 buildings and above) – **Wellington**
10 November	Frontline Training – **Wellington**
11 November	E2 Weathertightness – **Wellington**
11 November	Compliance Schedule Writing – **Christchurch**
12 November	Building Warrant of Fitness Auditing – **Christchurch**
13 November	Pool Compliance – **Hamilton**
18 November	Building Consent Vetting – **Palmerston North**
20 November	Skeleton of the House – **Auckland**
21 November	Pool Compliance – **Palmerston North**
24-26 November	Getting Started in Building Controls – **Wellington**
25 November	Compliance Schedule Writing – **Dunedin**
26 November	Building Warant of Fitness Auditing – **Dunedin**
27/28 November	Getting Started in Building Controls (Site Inspection) – – **Wellington**

DECEMBER

1-3 December	Getting Started in Building Controls – **Hawkes Bay**
4/5 December	Getting Started in Building Controls (Plan Processing) – **Hawkes Bay**

For programme flyers and further information please contact the Institute's office on 04 473 6002 or visit the website - www.boinz.org.nz

BARRIER FREE SEMINARS 2008

Two-Day Seminar Dates - Modules 1-4

Hamilton	9-10 September 2008
Christchurch	14-15 October 2008
Manukau	18-19 November 2008

Refresher Dates

Manukau	20 November 2008

Seminar Costs

Module 1 $150 + GST	Module 2 $100 + GST
Module 3 $150 + GST	Module 4 $210 + GST
Module 5 $250 + GST	Refresher $250 + GST

Modules 1 and 2 are compulsory Modules for the Barrier Free courses.
You must have completed Modules 1 and 2 before registering in the remaining Modules.
Requests for further information should be directed to:
The Administrator
Barrier Free NZ Trust
PO Box 25064, Panama Street
WELLINGTON

Tel: 04-915-5848; Email: seminar@barrierfreenz.org.nz
Web: www.barrierfreenz.org.nz

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Bracing Ratings

BPB PlasterBoard bracing ratings have been obtained from product tested in accordance with P21 racking test procedure Bracing System NZS3604:1999 BUs per metre

BPB Standard Plasterboard Bracing Ratings - Concrete or Timber Foundations

System Reference	Lining Requirements	Bracing System			BUs per metre	
		Hold Downs	Minimum Length (m)	Diagonal Brace	Wind	Earthquake
BP1S	10mm BPB Standard Plasterboard one face fixed vertical or horizontal	No	1.2	Yes	55	50
			1.8		65	55
			2.4		75	65
BP2S	10mm BPB Standard Plasterboard both sides fixed vertical or horizontal	No	1.2	No	70	60
			1.8		80	70
			2.4		90	75

The above schedule covers BPB Standard, Firestop and MR/Aquastop Plasterboards of 10mm and 13mm thicknesses.

BPB Braceboard Bracing Ratings - Concrete or Timber Foundations

System Reference	Lining Requirements	Bracing System			BUs per metre	
		Hold Downs	Minimum Length (m)	Diagonal Brace	Wind	Earthquake
BP1B	BPB Braceboard one face fixed vertical or horizontal	Yes	0.4	No	90	100
			0.6		125	115
			1.8	Yes	150	120
BP1BP	BPB Braceboard one face fixed vertical or horizontal 7mm D-D plywood on the other	Yes	0.6	Yes	150	150
			0.9		150	150
BP1BS	BPB Braceboard one face fixed vertical or horizontal BPB Standard 10mm on the other	Yes	0.6	Yes	145	145
			1.2		150	140

The above schedule covers BPB 10mm Braceboard and 13mm DuraLine.

To comply with the above ratings, wall-bracing elements must be constructed in accordance with the following specification:

- Timber frame minimum 90 x 35mm with studs at 600mm centres.
- Sheets lined vertically or horizontally. Vertical joints taped and stopped in accordance with British PlasterBoard "Fixing and Finishing Instructions" May 1999.
- Sheets fixed with 32mm x 6g screws at 150mm centres to perimeter of the bracing element. Fixings to intermediate studs are at 300mm centres but may be omitted if sheets are glued.
- Bracing ratings in table are based on wall height of 2.4m. Ratings may be adjusted for wall heights other than 2.4m as follows:

$$\frac{2.4\text{m}}{\text{Actual wall height (max 4.8m)}} \times \text{value from above table} = \text{Adjusted Rating}$$