NEW ZEALAND

building today

THE OFFICIAL MAGAZINE OF THE REGISTERED MASTER BUILDERS ASSOCIATION

APRIL 2014
VOL 24 NO 4

Registered Master Builders

NZI Centre at forefront of sustainability

- Quinn: Affordability — why the average sized house has grown bigger
- Construction boom will challenge
- Building Practitioners Board hands down penalties

WHEN YOU FIND THE IDEAL TILING SUBSTRATE, YOU STICK TO IT.

That's why GIB Aqualine® is NZ's most preferred tiling substrate for bathrooms and laundries.# The fibreglass in its core gives added strength that easily supports the weight of tiles, while special polymers help prevent moisture penetration. It's also light and easy to install. Proven in over 500,000 wet area rooms in the last 10 years, GIB Aqualine® is your best insurance against future liability and expensive call-backs.*

To find out more, call the GIB® Helpline on **0800 100 442** or visit **gib.co.nz/aqualine**

GIB®

#Winstone Wallboards BRANZ Trade Survey, December 2013. *GIB Aqualine® must be installed and maintained strictly in accordance with all requirements detailed in the current GIB Aqualine® Wet Area Systems literature. 10mm GIB Aqualine® is suitable for tiling up to 20kg/m2; 13mm GIB Aqualine® is suitable for tiling up to 32kg/m2. GIB® is a registered trademark.

contents

APRIL 2014 | VOL 24 NO. 4

building today

Legal columnist Tim Bates provides food for thought by showcasing some recent decisions by the Building Practitioners Board, the body that hears complaints made against Licensed Building Practitioners.

Tim's article makes sobering reading for LBPs who need to be aware of their obligations under the Building Act 2004, and that decisions made by the BPB are affecting the livelihoods of builders.

Meanwhile, a joint industry and government report released recently points to an unprecedented level of construction in New Zealand over the next five years.

Bringing together economic forecasts and data from private and public sectors on their forward construction workloads, the report shows at least 10% per annum growth for the next four years.

It's now up to the industry at large to ensure it's prepared for this latest, and most significant, cyclical upswing.

Andrew Darlington
Editor

inside this issue

RMBA News 4-8

Affordability — less is more; Are subcontractors training for the future?

Industry News 10-24

Construction boom will challenge; Universal underinsurance; NZI Centre scores rating

Back in Time 25

Find out what made the headlines way back when . . .

Products 26-27

Cordless power tools; Vehicle leasing; Phone hangers

Steel 28-32

Avantidrome provides Olympians with world-class facility

BCITO News 33

Industry in dire need of 5000 apprentices

Columnists 35-38

Never happened; Retirement planning; NZ's National War Memorial; BPB decisions

Building Consents 39

Monthly building consents by region

cover story 20-21

The NZI Centre in Auckland has scored a "market-leading" rating under the NABERSNZ energy use scheme.

Publisher:
Taurean Publications Ltd
P O Box 35 343,
Browns Bay, Auckland 0753

Editor/Advertising Manager:
Andrew Darlington
Ph: 09 478 4888 **Mob:** 021 90 11 56
E-mail: andrew@buildingtoday.co.nz

BUILDING TODAY is the official magazine of the Registered Master Builders' Association of New Zealand. Advertising statements and editorial opinions expressed in Building Today do not necessarily reflect the views of RMBA members, its executive or committees; or of the chief executive and staff unless expressly stated. Further, the RMBA and members are not liable for any statements made in Building Today unless otherwise stated. The editor reserves the right to edit, amend or reject copy where necessary. The publisher does not assume any responsibility or liability for any loss or damage which may result from any inaccuracy or omission in this publication, or from the use of the information contained herein. No warranties, express or implied, are made with respect to any of the material contained herein.

1-year subscription: $57.50 (GST incl). ISSN 1171-0225 (Print) ISSN 1171-1264 (Online)

chief's chat

by ceo warwick quinn

Affordability — less is more

I was speaking at a luncheon recently on numerous topics, and one question that came up (and always tends to get raised) was housing affordability.

No surprises there as it is the topic for this year's election, and everyone has a view on it.

However, it is interesting to note the assumption that construction is too expensive and that we are not innovative enough in our solutions, because if we were, house prices would be cheaper.

This is a common misconception, and one we have to dispel, notwithstanding that innovation can make construction less expensive and more productive.

But it will have no impact on general property prices. This is because the price of new homes is determined by the price of existing homes (as I have said many times before) and, thus, until existing property growth is arrested the cost of new homes will follow existing property price movements.

If a builder can make efficiency/innovation savings the property will still sell for its market price, and if big enough margins are to be had then vacant land prices go up etc, and the whole thing self-perpetuates.

Anyway, the issue is not so much one of affordable houses but starts with affordable land. We don't have it. And because we don't have it (in Auckland at least) we don't have a dog's show of building affordable homes, as we once knew them. Let me explain why.

The cost of construction has basically followed the CPI over the past 25 odd years. In the late 1980s the average size of a typical home was about 100 sq m. The average size now is 220 sq m or something close to that. And why is that?

Well, it is only partly answered by consumer preference but, more significantly, is influenced by land prices.

While construction costs have followed inflation, land values have grown exponentially over the same period. Land cost was about 25% of the typical suburban property's value in the 1980s but now it's 50%.

So, in order to not undercapitalise the land, we had to double the size of the house (to justify the land cost) as building the traditional 100 sq m home was "economically irrational" — for example, a $600k section with a $200k house on it.

And what has caused this rocketing land cost? Think urban planning that restricts land supply (urban containment policies), and hefty regulatory costs such as resource consents, time delays, development levies and so on.

Now there is still high demand for smaller homes but the only way they can now afford to be delivered in Auckland is by urban intensification, ie apartments and terraced houses.

We still build large homes on single house lots of 500 to 600 sq m because the economics stack up (large 220 sq m plus homes). But the days of the standard 100 sq m new home on a standard section are over — well, in Auckland at least.

Why? Because the cost of a standard section is too expensive and you "can't afford" to build a small home on it.

So if that is what we want (standalone homes on sections at affordable prices) the market needs to lower its expectations on section sizes. They can only be in the order of 150 sq m or thereabouts, and the homes no more than around 100 sq m.

Otherwise the choice is an apartment or terrace house with party walls etc. Having said that, this concept is being trialled at Hobsonville Point in Auckland, and it is great to see.

Registered Master Builders Association
Conference 5-7 June 2014
Wairakei Resort, Taupo

Game On!

Join your fellow Registered Master Builders and industry leaders at one of the year's most anticipated events.

Register now at www.masterbuilder.org.nz

Registered Master Builders

Are your subcontractors training for the future?

By RMBA president
David Fabish

The economic outlook for New Zealand in the short to medium term seems to be constantly improving. We have decade-high migration figures, good commodity prices and the best balance of trade figures for 40 years.

Our growing domestic economy is tipped to grow by as much as 4% this year, and is expected to maintain a level above 2.5% for the next four years.

This is great news for our construction sector, which is bubbling along nicely with increasing demand and good forward workloads.

Most of our building companies are gearing up now by training apprentice carpenters and planning in anticipation of this demand, but there are serious concerns about how the subcontractor and design fraternities will cope.

Our members have expressed their frustration at having to wait an unacceptable amount of time for specialist trades to arrive on site and complete their work. The same problem is occurring with getting plans drawn and consented, or amendments submitted in a timely manner.

Everyone complains about not being able to get skilled staff but then they seem hesitant to train for whatever reason.

It's disappointing that our builders are being let down by the very businesses that they supported with work during the recession.

It's no secret that Registered Master Builders' market share of the available work increased strongly during the lean times. The better builders were more available and, therefore, able to generate work for the rest of the industry. That loyalty should be remembered and reciprocated.

It seems that, in general, the subcontracting companies and designers don't fully understand the skilled labour requirements they will need over the foreseeable future. They need to act now instead of getting overworked and stressed trying to keep up with limited resources.

To my mind, a solution is to strongly encourage our specialist trades and designers to take on apprentices and train young New Zealanders.

The forecasts are for at least four strong years of construction activity, which is the time it takes to train and develop an apprentice into a qualified tradesperson.

There is no doubt that we are facing very large workloads, but with the appropriate planning and team building our industry can deliver quality buildings in an acceptable time frame.

Christchurch builder a deserving winner of House of the Year award

Clive Barrington of Clive Barrington Construction was "stoked" to win the Carters New Homes $1 million – $2 million award at the Registered Master Builders 2013 House of the Year.

Mr Barrington says winning this award reinforces that after 33 years the company is still at the top of its game, despite difficult circumstances surrounding this winning build.

"It was a typical hill site — long, narrow and steep, and difficult to access," he says.

"And not long after we started the build, the February 22 earthquake hit, right after pouring the main floor slab. We ended up with a large bulge in the floor, which we had to rectify. The quake put us back a bit in terms of timing, but all things considered, we were pretty lucky.

"It was a difficult time to be doing that kind of build, but the results were fantastic. It is a large modern home, but it was built to be comfortable. It has great finishes and French oak flooring and stonework — it's very special."

The judges called it a very comfortable home, complemented by a high standard of workmanship, detailing and furnishings.

"Extensive excavations and a massive retaining wall on a difficult, steep site were required to establish a building platform for this beautiful Christchurch home on a six acre site overlooking Governors Bay," they said.

"Externally clad in plaster over concrete block and horizontal cedar, the interior is superbly finished in a combination of French oak and recycled Halswell stone.

"With the view to the south east and sun behind, maximum high level windows throughout were employed to create a light and airy feel to rooms that spill out on to extensive decks. A long time in the planning, this home has real soul."

Mr Barrington joined Registered Master Builders as he believes it's important to be aligned with a trusted brand.

"Master Builders is the best industry organisation to be affiliated with. It is the biggest and the most trusted, and who government tends to consult with," he says.

"Customers want you to be aligned with a trusted brand. You wouldn't buy a car from somebody that isn't a licensed motor vehicle dealer. I think it strengthens customers' confidence in my business.

"House of the Year is a wonderful experience, and a great way of proving to your existing clients that your standards remain high. The competition is a nice thing for your staff to be involved in too — it's recognition for them as much as it is for me."

From left: Carters chief executive Paul Bull, Clive Barrington Construction managing directors Clive and Gillian Barrington, and directors Christine and Dave Walker.

The Awards are made possible through the support of PlaceMakers, James Hardie, GIB, Nulook, Ministry of Business, Innovation and Employment, Future-Proof Building, Carters, ITM, Plumbing World, Resene and Westpac.

Registered Master Builders
Our sponsors
PlaceMakers Know how. Can do.
GIB
James Hardie
nulook windows & doors
Ministry of Business, Innovation & Employment
FPB Future-Proof Building
plumbingworld
CARTERS YourBuildingPartner
ITM
Resene
Westpac

Builder wins House of the Year award with first entry

Jonathan Lewis of J Lewis Building Ltd in Nelson says taking out the PlaceMakers New Homes $250,000 – $350,000 award at the Registered Master Builders 2013 House of the Year was "totally unexpected".

Mr Lewis says it was extremely rewarding to win a House of the Year award, particularly as this was the company's first ever entry into the competition.

"There were a lot of entries in this category with some pretty impressive houses, so it was quite overwhelming to hear our name read out as the winner," he says.

J Lewis Building Ltd won the PlaceMakers New Homes $250,000 – $350,000 award at the Registered Master Builders 2013 House of the Year with this first-time entry.

"Being a relatively young firm, we don't have a reputation that is 20 years strong. We only started up three years ago, so this award goes a long way to reaching out to clients — it tells them that they can choose us with confidence."

Mr Lewis believes the clever use of space and strong workmanship made this home stand out from others in the category.

"The house is only 95 sq m, but at no point does it feel that small when you walk around. The high ceilings, split level and generous decks create a really unique feeling in the home," he says.

Jonny Lewis accepts his award at the Registered Master Builders 2013 House of the Year Awards.

"It is a house that showcases workmanship. There is nowhere to hide — everything is on show. It's easy to critique workmanship when everything is on display, but it is very hard to find fault with the finished product."

The judges said while simple and straightforward in appearance and finish, the degree of difficulty to achieve this build could not go unnoticed to the discerning eye.

"Deliberately created to blend in with its forest surroundings, this small three-bedroomed bach in the bush was constructed under instruction to leave as much of the vegetation around the site as possible," they said.

"Perched on driven timber piles, on a steep and challenging site, the 'close to nature' approach meant use of concrete or earth displacement was not appropriate.

"Stained to mimic the colour of Kanuka bark, this home has a particularly well-designed entrance and lobby with a sloping window to give a tree house feel, while creating the link between the split level separate building forms of sleeping and living."

Mr Lewis says he was impressed by the publicity generated by his House of the Year win and the strength of the Master Builder's brand from a client's perspective.

"It was some of my previous clients who nudged me in the direction of joining Registered Master Builders, because there is such strong awareness of the Master Builders brand.

"From a customer's perspective, they were obviously very in favour of the organisation. The affiliation with a trusted brand puts people at ease, which was a big part of why I joined.

"I also wanted to get involved with events like House of the Year, and we will absolutely continue to enter. The publicity has been fantastic and, generally, the experience was really enjoyable. I'd do it again in a heartbeat."

The Awards are made possible through the support of PlaceMakers, James Hardie, GIB, Nulook, Ministry of Business, Innovation and Employment, Future-Proof Building, Carters, ITM, Plumbing World, Resene and Westpac.

Registered Master Builders
Our sponsors
PlaceMakers Know how. Can do.
GIB
James Hardie
nulook windows & doors
Ministry of Business, Innovation & Employment
FPB Future-Proof Building
plumbingworld
CARTERS YourBuildingPartner
ITM
Resene
Westpac

Call for New Zealand's top carpentry apprentices

As the construction industry shows definite signs of growth, Kiwi carpentry apprentices are being encouraged to step up and show they have what it takes to be the industry's future leaders.

Entries for the Registered Master Builders Carters 2014 Apprentice of the Year are now open, giving carpentry apprentices the opportunity to win their share of more than $100,000 in prizes, as well as the coveted title of 2014 Apprentice of the Year.

Registered Master Builders chief executive Warwick Quinn says the competition is an excellent opportunity for apprentices to stand out from their peers.

"Apprentice of the Year is a great way for apprentices to see how they measure up against others across the country. At a time when the industry is experiencing high demand, it's valuable for apprentices to be able to differentiate themselves from their peers," he says.

"The competition is all about recognising excellence in carpentry apprentices, and those who go the extra mile are held in high esteem by employers."

2013 competition winer Bill Harkness says taking part in Apprentice of the Year was a massive learning curve, and it showed him where he stood among others in the industry.

"Apprentice of the Year is a huge name to have on your back, and it stands for a lot. The recognition I'm getting from the competition is really setting me up for the rest of my career. My name is out there now, and that, in itself, is invaluable," Bill says.

Principal sponsor Carters will be supporting the competition for the 10th year running, and chief executive Paul Bull says it's a great way of giving back to the industry.

"We're really proud to be involved with Apprentice of the Year and recognise the effort that employers put in to training apprentices — their input is a real investment in the future of the industry," he says.

"The competition is also an excellent opportunity for entrants to meet other apprentices and industry contacts across the country, keeping the industry thriving."

Carpentry apprentices can enter online at www.apprenticeoftheyear.co.nz, with entries closing on Thursday, June 12.

Apprentices, employers and young people aspiring to be a part of the construction industry are also encouraged to join the Facebook page: www.facebook.com/apprenticeoftheyear.

Registered Master Builders Carters 2013 Apprentice of the Year Bill Harkness.

The Apprentice of the Year competition is made possible thanks to principal sponsor Carters, the Registered Master Builders Association, the Building and Construction Industry Training Organisation (BCITO), and supporting sponsor the Ministry of Business, Innovation and Employment (MBIE).

SurePave™
THE HEAVYWEIGHT IN PERMEABLE PAVING

✓ Stabilises grass & gravel
✓ Improves drainage
✓ Reduces dust
✓ No more potholes
✓ 2 panels per m²
✓ Easy to lay

Stabilises grass and gravel

Stabilises paths and driveways

SurePave surfaces are free draining, eliminating potholes and ponding

Strong enough to handle heavy, turning traffic

SUREPAVE.CO.NZ

CIRTEX
GAIN MORE GROUND

LBP SKILLS MAINTENANCE POINTS: WE'LL HELP YOU WITH THAT.

Keeping up with your LBP Skills Maintenance points quota is simple with PlaceMakers. We're running PlaceMakers Skills Maintenance Seminars around the country during the year and our magazine, Under Construction can also contribute to your points requirement. We know time is money, so spend your time wisely, join us for a Skills Maintenance seminar and sign up for your monthly copy of Under Construction.

UPCOMING SEMINAR DATES

BRANCH	DATE	TIME
PlaceMakers Blenheim	Tuesday, 29 April 2014	7:00am - 9:00am
PlaceMakers Nelson	Tuesday, 29 April 2014	5:00pm - 7:00pm
PlaceMakers Motueka	Wednesday, 30 April 2014	7:00am - 9:00am
PlaceMakers Porirua	Wednesday, 30 April 2014	5:00pm - 7:00pm
PlaceMakers Kaiwharawhara, Evans Bay, Seaview	Thursday, 1 May 2014	7:00am - 9:00am
PlaceMakers Kapiti	Thursday, 1 May 2014	5:00pm - 7:00pm
PlaceMakers Levin	Friday, 2 May 2014	7:00am - 9:00am
PlaceMakers Palmerston North	Tuesday, 6 May 2014	8:00am - 10:00am
PlaceMakers Wanganui	Tuesday, 6 May 2014	5:00pm - 7:00pm
PlaceMakers Hawera	Wednesday, 7 May 2014	7:00am - 9:00am
PlaceMakers Ohakune	Wednesday, 7 May 2014	5:00pm - 7:00pm
PlaceMakers New Plymouth	Friday, 9 May 2014	7:00am - 9:00am
PlaceMakers Napier	Monday, 19 May 2014	7:00am - 9:00am
PlaceMakers Taupo	Monday, 19 May 2014	5:00pm - 7:00pm
PlaceMakers Rotorua	Tuesday, 20 May 2014	7:00am - 9:00am
PlaceMakers Whakatane	Tuesday, 20 May 2014	5:00pm - 7:00pm
PlaceMakers Mt Maunganui	Wednesday, 21 May 2014	7:00am - 9:00am
PlaceMakers Te Kuiti	Wednesday, 21 May 2014	5:00pm - 7:00pm

Dates and times may change. Contact your local store for more information and to confirm session times.

TOGETHER, WE'RE BUILDING NEW ZEALAND

PlaceMakers®
Know how. Can do.

Construction boom will challenge

New Zealand is on the brink of the biggest construction boom in 40 years, according to a joint industry and government report released recently.

The National Construction Pipeline report points to an unprecedented level of construction in New Zealand over the next five years.

This report is consistent with *The New Zealand Sectors Report 2013 on Construction* published in November last year, but provides new information on the future industry workload, including the nature and timing of planned construction activity by type and region.

It brings together economic forecasts and data from the public and private sectors on their forward construction workload from 2013 to 2018. It shows at least 10% per annum growth for four years, peaking in 2016 when nearly $32 billion of construction activity is predicted.

The report forecasts an increase in construction right across the country in residential and non-residential sectors. Construction hot spots are Auckland, followed by Canterbury and then Waikato/Bay of Plenty and Wellington.

The main drivers of growth are Auckland's residential housing demand more than doubling (a projected 150% increase) and the Canterbury rebuild.

The National Construction Pipeline report was commissioned by the Building and Construction Productivity Partnership, a joint industry and government body established in 2011 to address barriers to productivity in New Zealand's construction sector. It was prepared by Pacifecon (NZ) Ltd in collaboration with BRANZ.

"This is a heads-up to the sector," according to Productivity Partnership spokesperson Andrew Reding.

"We want people to be aware that there is an ongoing pipeline of work so they can manage resources appropriately.

"*The National Construction Pipeline* report is validated by a database of client intentions — projects that we know are going ahead. What's striking is not just the rate of construction growth, but the duration of that growth.

"We're looking at a sustained level of activity over many years. The question for the industry is how are we going to meet that demand without compromising quality?

"New Zealand is a small market, and the Productivity Partnership is sharing this information to encourage the demand and supply sides of the industry to work collaboratively.

"Visibility of forward demand can assist planning, scheduling of investment in skills and plant, and co-ordination of the timing of projects, particularly public works," Mr Reding says

The Productivity Partnership intends to release national construction forecasts on a regular basis.

The National Construction Pipeline report can be viewed at http://buildingvalue.co.nz/sites/default/files/National_Construction_Pipeline.pdf.

The organisations behind the National Construction Pipeline report:

The Building and Construction Productivity Partnership is a partnership of industry and government, established in 2011 to address low productivity in the construction sector.

The Productivity Partnership aims to build the value of New Zealand's construction sector and empower it to become productive, safe and profitable, so that it delivers good quality homes, buildings and infrastructure to provide a foundation for strong communities and a prosperous economy.

The Partnership Secretariat sits within the Ministry of Business, Innovation and Employment. See more at www.buildingvalue.co.nz

The purpose of the Ministry of Business, Innovation and Employment (MBIE) is to "grow New Zealand for all". The MBIE will do this by helping businesses become more productive and internationally competitive, and by increasing opportunities for all New Zealanders to contribute to the economy.

This means providing more jobs and increasing the opportunities for New Zealanders to participate in more productive and higher paid work.

Growth for all also means providing better quality housing that is safe and affordable for New Zealanders. See more at www.mbie.govt.nz.

Pacifecon (NZ) Ltd was established in 1982, and is a wholly New Zealand-operated business focusing exclusively on the New Zealand and Pacific Islands construction industry, providing business intelligence in the form of future project information to a client base.

Pacifecon uses a nationwide team of 30 to liaise with key decision makers in the construction industry (in the private and public sectors) to compile thorough, timely and accurate information on building projects from the earliest planning stages.

Newspapers, journals, industry publications and web sites are checked for relevant information as well as consents. Information is held on projects which may have a work start date far beyond 2018. See more at www.pacifecon.co.nz.

WATERPROOFING CERTAINTY FOR BUILDERS

Sika® BlackSeal® Elastic

THE BUILDER-FRIENDLY BRUSH-ON WATERPROOFING

- Below ground, residential applications
- Fast drying – turn a 2 day job into a 1 day job
- 50+ years durability
- Elastic not brittle – if the ground flexes, it will too
- BRANZ Appraised – so you know you can trust it

LICENSED BUILDERS

1. WATCH THE **ON-LINE VIDEO** » **2.** COMPLETE THE SHORT **QUIZ** » **3.** GET YOUR **LBP-EXCLUSIVE SIKA CERTIFICATE**

Scan to view How to Apply video and LBP-exclusive Certificate or visit **learnhow.sika.co.nz**

BUILDING TRUST

Sika 1248

Large hydro-electric dams unviable and damaging to emerging economies

The evidence is conclusive: large dams in a vast majority of cases are not economically viable. Instead of obtaining hoped-for riches, emerging economies risk drowning their fragile economies in debt owing to ill-advised construction of large dams.

After a decade-long lull, the construction of large dams has accelerated. The emerging economies of Brazil, China, Ethiopia, Indonesia, and Pakistan among others are rushing to build mega-dams on an unprecedented scale.

Yet since 2000, when the World Commission on Dams published its findings, no systematic, global and independent research has been carried out on the outcomes of large dams.

New research from Said Business School, Oxford, has now produced an authoritative investigation of whether large dams work or not, based on the most extensive dataset of its kind.

The study is based on data from 245 large dams in 65 different countries. The findings show the construction costs of large dams are on average 90% higher than their budgets at the time of approval, in real terms.

Watertight®

Premium Flexible Flashing Tape

- Stands permanent exposure to direct sunlight and UV
- 1.5mm thick, with improved nail sealing ability
- 5°C to 50°C application temperature range
- Can be used with any BRANZ-approved building wrap
- Can be used on rigid barriers
- Has a service life equal to that of the cladding

Imported and distributed
TECHNO INSULATION
INSULATION ENGINEERING

Ph: 09 426 4748 Fax: 09 426 4750
email: info@technoinsulation.com
www.technoinsulation.com
PO Box 516 Silverdale 0944

This result is before accounting for negative impacts on human society and environment, and without including the effects of inflation and debt servicing. Costs and cost overruns are much higher when these items are included.

The study also found that the magnitude of cost overruns has not declined over time.

Dam budgets today are as wrong as at any time during the 70 years for which data exist. Dam planners seem not to have learned from the past. For example, Brazil's Itaipu dam, built in the 1970s, suffered a 240% cost overrun that impaired the nation's public finances for three decades.

Despite producing much-needed electricity, Itaipu will likely never pay back the costs incurred to build it. Regardless, Brazil is currently building the controversial Belo Monte hydroelectric project, which has proved non-viable even before opening, and awaits a fate like Itaipu's.

China, Indonesia, Pakistan and other nations show similar amnesic behaviour regarding the building of dams.

Costs aside, mega-dams also take an inordinately long time to build — 8.2 years on average, and often more than 10 years.

The Oxford study shows that these long-time horizons leave dam projects particularly ineffective in resolving urgent energy crises, and especially vulnerable to currency volatility, hyperinflation, political tensions, and swings in water availability and electricity prices, a combination of which constitute the typical dam disaster, which is your typical dam project.

Professor Bent Flyvbjerg, who heads major programme management at the business school, commented on the causes of the highly inaccurate budgets for dams.

'Fools' and 'liars'

"Experts making forecasts about megaprojects can be usefully grouped into 'fools' or 'liars'. Fools are the reckless optimists who see the future with rose-tinted glasses. These forecasting fools ignore hard facts and uncertainty, betting the family silver on gambles with a very low probability of success.

"Liars deliberately mislead the public for private gain, fiscal or political, by painting overly-positive prospects of an investment, just to get it going. The systematically poor outcomes of large dams suggest that 'fools' and 'liars' have been at the helm," Professor Flyvbjerg says.

Fellow researcher Dr Atif Ansar says proponents of mega-dams tend to focus on rare stories of success in order to get their pet projects approved.

"The purported success of the Hoover Dam in the USA, for example, is an often-heard argument in favour of building new large dams. Instead of relying on the outcome of just one project, decision makers should consider evidence for the entire population. In the case of large dams, the probability of failure dominates.

"If leaders of emerging economies are truly interested in the welfare of their citizens, they are better off laying grand visions of mega-dams aside," Mr Ansar says.

"Proponents of mega-dams express concern that renewable water resources could be wasted if mega-dams are not built. Our research shows that, as a general rule of thumb, many smaller, more flexible projects that can be built and go online quicker, and are more easily adapted to social and environmental concerns, are preferable to high-risk dinosaur projects like conventional mega-dams," Professor Flyvbjerg says.

Paslode®

TO CELEBRATE THE LAUNCH OF OUR NEW APP, PASLODE IS GIVING AWAY...

THE ULTIMATE STAG WEEKEND

PACKAGE INCLUDES:

Flights to Auckland for you and 2 mates

Two nights accommodation at the exclusive Balnagown Hunting Lodge

Full day hunt with an experienced guide

Plus lots of other man stuff thrown in

BUY SPECIALLY MARKED PASLODE PRODUCT DURING MAY TO BE IN THE DRAW

DON'T FORGET TO DOWNLOAD THE PASLODE NAIL SELECTION APP!

Only Paslode offers a complete range of specialty Bright, HD Galvanised and Stainless Steel nails

With our new nail selection app, it is now even easier to get the right nail for the job

WE'RE THERE WHEN YOU NEED US

www.paslode.co.nz

‘Cardboard Cathedral’ architect wins equivalent of Nobel Prize for architecture

Shigeru Ban, architect of Christchurch’s Transitional (“Cardboard”) Cathedral, has won the Pritzker Prize.

Mr Ban is a world-class architect and expert in disaster-zone building. The new cathedral is his largest post-disaster structure to date.

“The Pritzker Prize is the equivalent of the Nobel Prize for architecture, being awarded for lifetime contribution to the advancement of the art of architecture globally,” according to Dr Andrew Barrie, professor at the University of Auckland’s School of Architecture and Planning, and author of the forthcoming *Shigeru Ban: Cardboard Cathedral* (Auckland University Press).

Cardboard Master: Shigeru Ban

“The Cardboard Cathedral now has the unique status as New Zealand’s only building by a Pritzker Prize-winning architect, cementing its position as among the most significant buildings in New Zealand’s architectural history.”

Built in Christchurch’s inner city, the Cardboard Cathedral stands in for the historic building devastated by the earthquakes of September 2010 and February 2011. Signalling the beginnings of renewal in the CBD, the Cathedral is the first new civic building completed since the quake, and is built to last forever.

“Our book, *Shigeru Ban: Cardboard Cathedral*, captures the dramatic process of the design and construction of the Cathedral, and it will be great to share the story of this now even more significant building with the world,” Dr Barrie says.

Mr Ban was born in Tokyo in 1957. He trained at the Southern California Institute of Architecture in Los Angeles and the Cooper Union in New York before establishing his own firm in Tokyo, which now also has offices in Paris and New York.

He has taught at Yokohama National University, Keio University and Harvard University.

Mr Ban’s career now spans 30 years, and has been characterised by consistently innovative and adventurous design, and a concern for those who normally don’t have access to such architecture — the dispossessed and traumatised victims of disasters.

“A temporary building that is loved by people — even one built with mere paper — can become permanent,” Mr Ban says. “I sense that this monument in Christchurch will be loved and used by the citizens of New Zealand for a long time to come.”

Building, Renovating, Decorating?

Think free entry, free parking, free seminars

Think free home ideas - 7 days a week

Auckland The Strand, Parnell / **Christchurch** Mandeville St, Riccarton / **Wellington** Cnr Esplanade & Lower Hutt St www.homeideas.co.nz

home ideas centre

NEW!

5Ah BATTERY

MAX TORQUE!

NEW FROM MAKITA - THE MOST POWERFUL BRUSHLESS CORDLESS DRIVER DRILLS ON THE MARKET.

DDF481
DRIVER DRILL

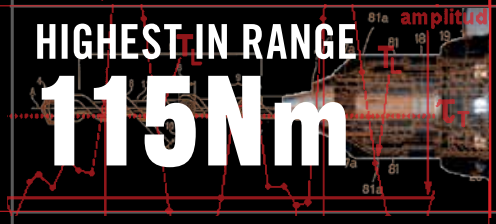
DHP481
HAMMER DRIVER DRILL

BOTH AVAILABLE AS RFE KITS WITH 2X 3AH BATTERIES AND CHARGER, RTE KITS WITH 2X 5AH BATTERIES AND CHARGER OR SKINS (TOOL) ONLY.

TORQUE ($T = r \times F$)

HIGHEST IN RANGE

115Nm



NEW!

BRUSHLESS MOTOR

BL MOTOR

WWW.MAKITA.CO.NZ

Makita®

AVAILABLE AT YOUR MAKITA STOCKIST

Construction assessment firm signals almost universal underinsurance

A leading firm in the construction industry is warning that changes to home insurance policies are leaving up to 93% of home owners underinsured to the tune of 25% to 50%.

Quantity surveyors Construction Cost Consultants has produced 25,000 insurance reports based on quantity surveys of residential properties, and is involved in $4.5 billion worth of rebuild works in Christchurch.

They say in the event that home owners need to fully rebuild their houses, most will find themselves at least 25% short of the rebuild cost, having accepted the default sum provided by banks and insurers.

The figure can be as high as 50% when more complex features such as retaining walls are present.

Based on that 25% estimate, the number of private dwellings (1.765 million) and the median national house price ($407,525), the company estimates that $167 billion worth of residential property, at a minimum, is currently not insured for rebuild (the total value of housing is more than $717 billion).

Construction Cost Consultants Residential managing director Gary Caulfield says the shortfall is not the fault of financial services providers or consumers, but results from a widespread lack of awareness of the true cost of rebuilding a home after a fire or other disaster.

"Insurers are very clear in policy renewal documents that their customers should not rely on the default sum provided, but should seek a more comprehensive assessment on which to base their sum insured," Mr Caulfield says.

"Banks and insurers know that it's in their own interests to ensure that customers have comprehensive cover, so providers themselves aren't exposed if the worst happens.

"However, based on the data we have received from partners in the financial services sector, 93% of home owners are not heeding this advice, and insuring for the default sum provided by their insurer.

"Of the remaining 7%, most are using the Cordell Calculator, and a minority are seeking assessments from property valuers or quantity surveyors."

Mr Caulfield likens the risk consumers are facing to the finance sector collapse that sucked up more than $1 billion in investor debentures during the global financial crisis.

Similar catastrophe simmering?

"People thought they were doing the right thing by diversifying their investments, but they were the victims of a lack of regulation and oversight that caused vast loss of personal wealth.

"We are very concerned that a similar catastrophe is simmering here. Most people have a high proportion of their net worth tied up in their homes, and they are doing the right thing by insuring, and trusting the number provided.

"What they don't know, and what no one is telling them, is that the default sum is essentially a random number.

"To get an accurate figure for most homes, a two-hour assessment by a construction cost expert is required. Banks and insurers are not in a position to provide or require this, and an online calculator is a poor substitute for a comprehensive site assessment.

"In most cases the calculator will give a higher sum insured than the default sum, but it will still be insufficient to fund a full rebuild."

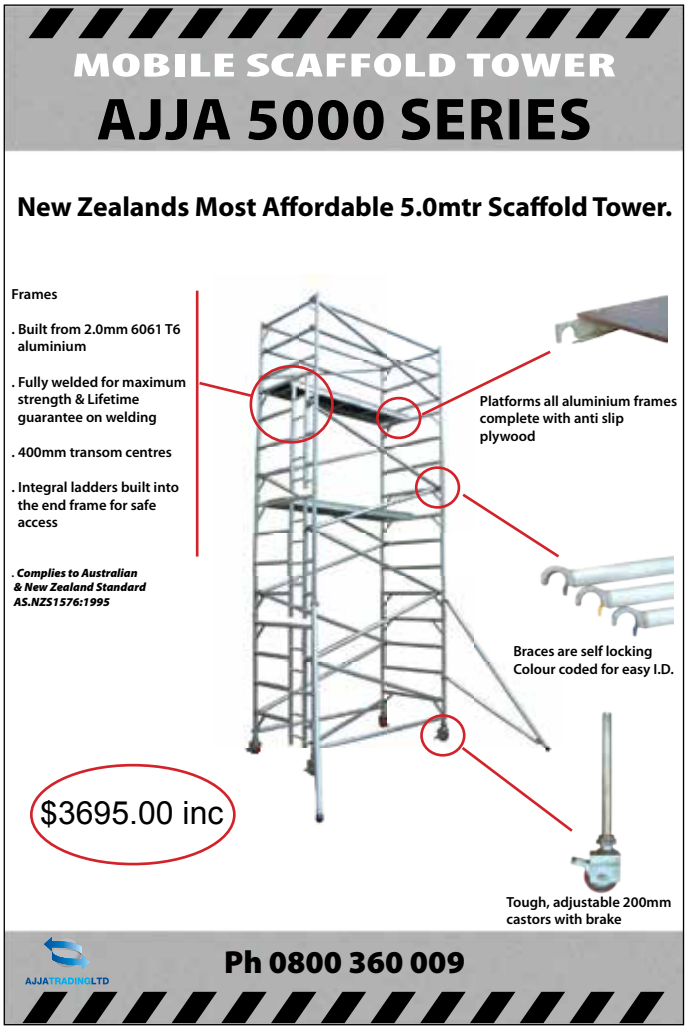
Consumers should also be aware of the different types of professional property assessments available, to be sure they obtain the necessary information for insurance purposes.

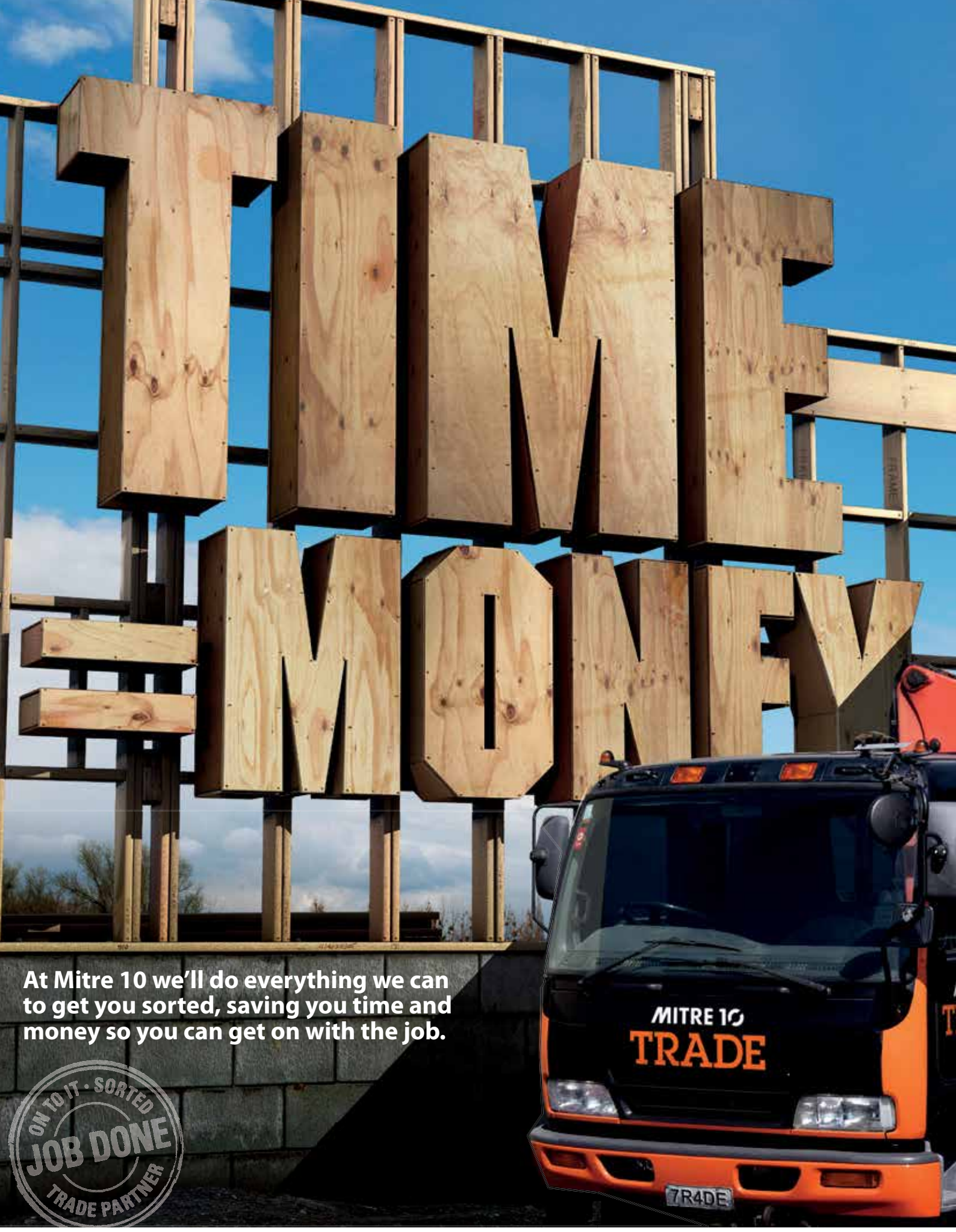
A property valuer will assess the property in its entirety, and subtract the land value from the overall value to give the value — and rebuild cost — of improvements.

As part of their training, valuers spend about four months learning how to assess buildings and crunch the numbers involved, and many rely on calculators. They are not required to provide warranties or guarantees of their reports.

Quantity surveyors specialise in construction cost assessment, in which they receive a minimum of four years' training.

Many quantity surveyors will provide warranties and guarantees of their insurance reports for a set period, and have professional indemnity insurance. Home owners are advised to request evidence of these measures before proceeding with an assessment for insurance.





At Mitre 10 we'll do everything we can to get you sorted, saving you time and money so you can get on with the job.

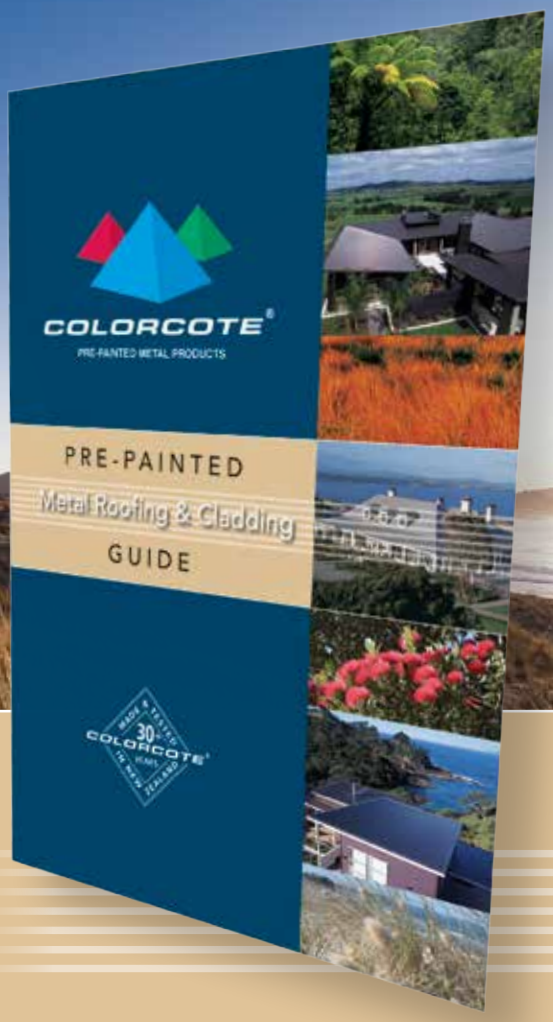
ON TO IT · SORTED
JOB DONE
TRADE PARTNER

MITRE 10
TRADE

So drop into Mitre 10 for your next job and you'll be on your way and back on the clock **mitre10.co.nz/trade**

DRAFTFCB M10 7442

Free advice on roofing and cladding for New Zealand homes



The ColorCote® Metal Roofing & Cladding Guide gives you helpful advice and design tips on colours, using the correct materials for your home, important information on mistakes to avoid and how to save thousands of dollars over the lifespan of your roof or wall cladding.

Your roof is usually the largest feature of your home and its design, finish and colour can make a big difference to the overall look. That's why we've produced the new ColorCote® Metal Roofing & Cladding Guide - to ensure each of our customers gets the correct product system for their building environment and gets the best value for money in regard to performance and lifecycle costs.

We'll show you how to make the most of the design flexibility offered by ColorCote® pre-painted steel or aluminium systems - how they can be roll-formed or pressed into a range of profiles and can be adapted to almost any design or construction concept… how it has the strength to span wide spaces with simple support systems and can be bent or curved to make the most of innovative designs and ColorCote's range of more than 80 colours.

For your free ColorCote® Metal Roofing & Cladding Guide visit our website:

www.colorcote.co.nz

Or contact your local ColorCote® pre-painted metal roofing and cladding supplier.

COLORCOTE®
PRE-PAINTED METAL PRODUCTS

www.colorcote.co.nz

13427

"We'll see you right"

IF YOU'RE IN BUILDING THESE DAYS, YOU NEED TO SEE A SPECIALIST.

Daily support is key when you're in the building game. It's a tough and changing business. Value for money, service excellence and the ability to source the right products are also critical. At least that's what we think at ITM. And it's why our longtime, loyal builders stay with us. And why they see us as New Zealand's specialist building materials suppliers.

0800 367 486 / WWW.ITM.CO.NZ

NZI Centre scores ‘market leading’ NABERSNZ rating

The NZI Centre in Auckland has been awarded a 5-star “market l

Auckland’s NZI Centre has been awarded a 5-star “market leading” base building Certified Rating for energy use under NABERSNZ, the office building energy rating scheme.

Providing ratings from one to six stars, NABERSNZ, which is based on the National Australian Built Environment Rating System, is becoming the industry standard for benchmarking and improving office building energy performance.

The scheme was launched earlier this year, and this is the fifth Certified Rating to be released.

The prominent five-storey NZI Centre on Fanshawe Street was built in 2008, and achieved a 5 Green Star rating at the time of construction for fit-out and design, making it one of Auckland’s most sustainably-designed buildings.

Jacki Johnson, chief executive of tenant IAG, says the NABERSNZ result demonstrated that the building was performing in practice as well as in theory.

“The building has a great feeling. It’s pleasant to spend time in, and our staff enjoy it. So we thought it was probably performing well. Now, NABERSNZ proves it is,” Ms Johnson says.

“The value of the NABERSNZ rating is that it’s independent verification that our building uses energy efficiently.

“While it’s good to get this result, we won’t rest on our laurels, but will continue to work on being resource efficient — which is in line with our corporate ethos of operating sustainably.”

The NZI Centre’s sustainability features include a distinctive double skin facade along most of its perimeter, with automatically controlled blinds to moderate glare and sunlight. It also has exposed concrete ceilings to help moderate temperature.

New Zealand Green Building Council chief executive Alex Cutler says while smart design creates a blueprint for efficient buildings, how they’re commissioned, maintained and used is crucial in day-to-day performance.

“The NZI Centre was designed with many sustainability features, so it has a head-start. But the key reason it has achieved such a high NABERSNZ score is that there’s a very active building management team who constantly target energy use to ensure the site is comfortable and running efficiently. It’s a great role model for other buildings,” Ms Cutler says.

EECA chief executive Mike Underhill congratulated IAG and the building management team. Few New Zealand buildings are likely to reach 5 stars in their first Certified Rating, but NABERSNZ is a powerful tool to drive improvement, he says.

“We expect most New Zealand office buildings will sit around the 2.5 to 3-star mark for energy use, but there’s immense potential. Energy savings of up to 25% are achievable for most office buildings and tenancies,” Mr Underhill says.

“This scheme helps simplify the process. Getting and improving a NABERSNZ rating is a very good way to find these savings, and to start benefiting from lower energy costs.”

The NZI Centre base building rating was carried out by NABERSNZ accredited assessor Patrick Arnold from eCubed Building Workshop.

• The National Australian Built Environment Rating System that NABERSNZ is based on, is a scheme that has rated building energy performance for more than a decade.

The scheme is licensed to the Energy Efficiency and Conservation Authority (EECA) and is administered by the New Zealand Green Building Council (NZGBC). The Energy Management Association of New Zealand (EMANZ) adapted it for New Zealand conditions.

NABERSNZ has two commercial sponsors — the DNZ Property Fund and Precinct Properties. The New Zealand commercial sector uses around $800 million worth of electricity each year. Annual energy savings are worth around $200 million to businesses and the wider economy.

For more information visit www.nabersnz.govt.nz.

eading" base building Certified Rating for energy use.

Image: Simon Devitt

Safety Fall Bags & Safety Fall Nets FREE DELIVERY **'Don't break a leg, break a fall'**

SAFETY Fall Bags®

* Bags set up on site from...

$450 + GST

* Conditions apply

FREE SET UP

Safety Fall Bags & Nets System for safety when working at height

Our bags are ideal for mid floors and standing trusses they are lightweight and easily moved around. Once the top floor frames are stood, plumbed, braced and capped we install nets over the stairwell, void and in large rooms of the house leaving one room free for the roof pack and redeploying the bags in small rooms, wardrobes, bathrooms and toilets for FULL floor cover... So standing trusses using bags couldn't be easier... no nets in the way so the roof pack can be passed up from the floor.

Call for an estimate, site visit or booking

0800 32 55 22

info@safetyfallbags.co.nz

www.safetyfallbags.co.nz

news

Tale of two cities 'well entrenched'

The latest residential building consent figures show demand for new housing continuing to strengthen.

The trend for new home consents is at its highest level since December 2007, and is 85% higher than the most recent low point in March 2011. Statistics New Zealand figures showed 1768 new dwelling and apartment (66) consents issued in February 2014.

RMBA chief executive Warwick Quinn says the overall trend is strong but continues to be dominated Canterbury and Auckland. The two regions issued 994 consents between them in February, representing more than 56% of all consents nationally.

"A couple of years ago we predicted a tale of two cities, and this is now well and truly entrenched," Mr Quinn says. "In 2013, Canterbury and Auckland's share of the residential build was 57% and the trend for the first two months of 2014 is the same.

"However, the Canterbury region continues to grow at a faster pace, and now makes up 77% of all residential activity in the South Island and 31% of residential construction nationally."

The revolutionary one system solution providing roof edge protection and a working platform which adapts to suit the job requirement.

INTAKS

Hangs Tough

NZ DESIGN 100% NZ MADE

1. Intaks Installation

2. Truss Erection

3. Prep For Fascia

4. Fascia Install

5. Roof Started

6. Soffits

7. Windows Installed

Safe site efficiency is our business.

07 577 6469 | info@intaks.co.nz | www.intaks.co.nz

Maximise midwinter work with Resene Wintergrade paints

Painting in winter can be a challenge at times with the cold weather playing havoc with application and performance.

That's why Resene makes **Resene Wintergrade** paints, dropping the recommended minimum drying temperature to 2°C to give you a bit of an insurance policy against getting caught in the cold.

The Resene Wintergrade range includes: **Resene Wintergrade Lumbersider** waterborne low sheen, **Resene Wintergrade Sonyx 101** waterborne semi-gloss, **Resene Wintergrade Hi-Glo** waterborne gloss, **Resene Wintergrade X-200** acrylic waterproofing membrane, **Resene Wintergrade Quick Dry** waterborne primer undercoat and made to order **Resene Wintergrade Summit Roof** and **Resene Wintergrade Roof Primer.**

Best of all, the wintergrade versions are the same price as the standard products so you can just choose whichever product fits in with your local weather conditions.

Available only from Resene.

Resene
the paint the professionals use

0800 RESENE (737 363)
www.resene.co.nz

Holcim progresses import terminal investment

With its new $5 million silo capacity project at Lyttelton nearing completion, Holcim (New Zealand) Ltd is moving to the next stage of the $100 million investment programme that will allow it to import and distribute bulk cement for supply to the New Zealand market.

The company announced that it will build two 30,000 tonne import terminals, one in the South Island and one in the North Island, and aims to have these operational within two to three years.

After reviewing proposals from ports throughout New Zealand, Holcim NZ has identified Auckland (Waitemata) and Timaru as its preferred locations for the two terminals.

"An import terminal at the Port of Auckland enables Holcim to supply cement direct into one of its major markets," Holcim (NZ) Ltd capital projects manager Ken Cowie says.

"And choosing the Port of Timaru provides effective access to the major market of Christchurch, using the new silo capacity there, and to the rest of the South Island.

"Building an import terminal at Timaru is also consistent with the option of eventually building a new cement plant at Weston, near Oamaru, although this remains on hold for the foreseeable future."

The company announced in August last year that imported cement will replace local production at the company's Westport cement plant, which will close once the two import terminals are fully operational.

Subject to confirming final details with the preferred ports, construction is intended to commence this year.

Concrete construction course on soon

The Cement & Concrete Association of New Zealand (CCANZ) has developed a Concrete Construction Course designed for those responsible for supervising the receipt and placement of fresh concrete on-site — typically this would be the site foreman (or equivalent) and the formwork carpenter.

Building apprentices would also find the course invaluable.

The aim of the course is to promote quality concrete construction.

Built around NZS 3109 Concrete Construction, the curriculum for the two-day classroom-based course will meet industry needs and the relevant NZQA standards.

The course is comprised of the following five modules:

- Introduction to Concrete: Includes cement manufacture, ready mixed concrete production, constituent materials, applications.
- Properties of Fresh and Hardened Concrete: Relevant standards, fresh and hard concrete tests.
- Reinforcement: Reinforcement types, manufacture, handling and installation.
- Formwork: Requirements of formwork, formwork materials, systems and design, falsework, construction.
- Site Practice: Handling and placing, compaction, finishing and curing, hot and cold weather concreting, control of surface finishes and cracks.

The popular CCANZ publication *The New Zealand Guide to Concrete Construction* is an ideal resource to accompany the course. It can be downloaded in chapters from the CCANZ web site at www.ccanz.org.nz/documents.aspx.

The course will be rolled out on May 27 and 28 in Auckland, with Wellington and Christchurch dates to be announced.

To register for the Auckland course or to express your interest in the Wellington or Christchurch courses, contact CCANZ on 04 499 7760, or email admin@ccanz.org.nz.

Queries about the course content can be directed to Structural Performance and Engineering Systems manager Alistair Russell on 04 915 0384, or email alistair@ccanz.org.nz.

BT's Back in Time

Welcome to Back in Time, where we delve into our magazine archives and discover what was making news way back when . . .

20 years ago:

▪ An average of nearly $60 million more was spent on construction work every month in the year ended January 1994, than in the year ended January 1993.

It's an increase that RMBF chief executive Trevor Allsebrook said was a sure sign of economic well-being. "Business is showing continuing ability and keenness to invest in new building, and ever-increasing amounts are being spent on new housing," Mr Allsebrook said.

15 years ago:

▪ The New Zealand Building Subcontractors Federation and Registered Master Builders put aside their differences over "pay-if-paid" provisions and security of payment to work together on issues of mutual interest or concern.

RMBF chief executive Trevor Allsebrook said there was little prospect of the two groups ever agreeing over the pay-if-paid clause in the Federation's standard subcontract agreement.

"However, that doesn't mean we are opposed to each other because there are numerous other areas where we can work well together for mutual or individual benefit, and in the interests of the construction industry in general," he said.

10 years ago:

▪ In what was thought to be a national first — and certainly a first for the Auckland RMBA — Diane Phillips was elected the first female president of the Auckland Association.

5 years ago:

▪ In his monthly *Building Today* column, RMBF president Brent Mettrick proposed a solution to end the never-ending media tirade concerning "Leaky Homes Syndrome".

He suggested that the Government put its hand in its pocket to pay 50% of costs, the local authority 25% and the owner 25% in order to "stop spending on legislation, and to fix the problems".

"Something as bold as this would be showing real leadership in a time of unprecedented hardship in the industry. Surely the home owners are worthy of this help?" he asked.

"Unless someone has the resolve to end this, it will still be here for our children."

INTEGRA
LIGHTWEIGHT CONCRETE SYSTEMS

Aquapel infused lightweight concrete flooring
super hydrophobic, with steel mesh reinforcing
waterproof when cut
easy handling, cost effective
all weather installation

Resene
Construction Systems
www.reseneconstruction.co.nz
0800 50 70 40

ROCKCOTE | psl PLASTER SYSTEMS | FPB.co.nz FUTURE-PROOF BUILDING

Cordless revolution continues

Makita says its new DHP481 Cordless Hammer Driver Drill and DDF481 Cordless Driver Drill are quite simply the most powerful cordless driver drills available.

Cutting edge features such as 5.0Ah battery technology and next generation brushless motors lead the way in pure power, precision, performance and productivity.

At just 205mm in length, it's hard to believe these drills can deliver the highest torque available. Makita's highly efficient brushless R&D has resulted in fastening torque of 115Nm — a 45% increase in work efficiency* and double the work amount per battery charge.**

Makita has been using brushless motor refinement and precision engineering to steadily increase the power and performance of its 18V Lithium-ion tools. This has resulted in a much greater measure of torque to weight ratio — 115Nm from a drill weighing less than 3kg — and double the work amount from a single battery charge.

No brushes means no friction, so the energy produced can be used at lower amperage, lowering the overall heat production of the motor and the temperature at the housing surface. This significantly extends both tool and battery life, lowering their overall cost.

Makita has then added a brand new design 5.0Ah low-impedence battery that minimises discharge on start-up and generates longer run times — double that of its 4.0Ah battery. It recharges in just 45 minutes in the current standard charger.

The drills boast many other great features, all designed to improve performance and operator comfort.

The single sleeve 13mm capacity keyless chuck allows easy bit installation and removal with one hand, while an expanded torque setting range offers real versatility of application.

Mechanical two-speed gearing with the all-metal planetary gearbox handles the toughest of tasks. Variable speed control has been located on the trigger, making accuracy and operation simple.

Both drills incorporate Makita's "Supa-Star" charging system, which charges each battery cell in the optimum way to maximise work volume and extend the life of the battery.

This technology prevents over-discharge of the battery, a common cause of battery failure, by switching the tool off when the battery is technically flat.

The handle design of both tools has also been fine-tuned to fit the thumb and forefinger so the operator can comfortably apply maximum thrust to the bit.

A three-stage battery warning light indicates remaining battery charge and when to recharge.

Drilling capacities are 13mm in steel, 76mm in wood, and for the DHP481, 16mm in masonry.

Makita NZ managing director Todd Okochi says these two drills "demonstrate our constant drive to lead the way, with their combination of our best brushless technology, our highly regarded 18V cordless platform and our latest, greatest introduction, 5.0Ah."

Both drills come as kits with carry case, fast charger, two batteries, two (+) (-) bits, heavy duty side handle assembly and your choice of 3.0Ah format (RFE), 5.0Ah (RTE) or tool-only "skins".

• All test comparisons were made between Makita new model with 4.0Ah battery and predecessor model.

** Tests were carried out drilling through a 38mm SPF with a 2-91/6 self-feeding bit.*

*** Drilling in brick to a depth of 30mm with 8mm diameter bit.*

Independent leasing company deals with all manufacturers, dealers and importers

Autolease is a specialist vehicle finance and leasing provider to private and business clients.

Operating nationwide with extensive industry experience, the company's aim is to give clients the best vehicle finance packages to suit their needs and budget while making the process easy and hassle-free.

The company builds long-term relationships with customers so they can concentrate on what they do best while confidently relying on Autolease to provide the best options and quality service for their vehicle and fleet requirements.

Because Autolease is independent it has no set allegiances to any particular manufacturer, dealer or importer.

Importantly with new vehicles, fleet discounts are fully passed on to all customers.

As with all vehicles nothing is hidden, and the company operates with full disclosure so clients know with confidence they are getting the best deal possible.

Accordingly, the majority of business and corporate clients have come via accountants.

Finance packages are by way of Finance Lease (with its associated taxation benefits) and Hire Purchase. These are available on new, used, imported and even private sale vehicles.

Under the Lease product, there are no fair wear and tear charges or excess kilometre charges and, importantly, the client has the option to retain ownership of the vehicle or profit on the resale of the vehicle at the end of the lease term.

Finance packages can be taken out over 36 to 60 months, and the incorporation of structured, balloon or residual payments can substantially reduce monthly outgoings.

For more information on Autolease's products and services, visit www.autolease.net.nz.

Avoiding the slip . . .

Here's an Aussie idea, made in China and sold worldwide.

You no longer need a library in the on-site loo — you can surf the net, take calls and when the crux of the matter comes, if you use your Phone Hanger you won't run the risk of losing your phone to the murky waters below!

It seems living in our 24/7 world that no time is off limits. Mobiles are listed as one of the most common objects that are dropped down the toilet — apparently, nearly one in five people drop their phones there.

The new Phone Hanger is billed as a shelf for when you need hands free!

A concreter from the Northern Territory in Australia saw the need to create a phone hanger for mobile phones.

"The first thing I do everyday is read the news, check my emails, do my banking and, of course, check Facebook. I know I'm not the only one who does this. And up until now, I have been using the toilet roll, the floor and my knee," inventor Anthony reckons.

"I was sick of dropping my phone off the roll, balancing it on my knee or leaving it on the floor then stepping on it.

"So, armed with a pair of pliers and stuff lying around the house, my first design attempt was with an old wire clothes hanger. Next up, I used a plastic clothes hanger.

"Simple, yes. And works, yes. I tell and show friends my idea, and it's obvious I'm not alone. Some lady friends have even dropped them out of their bra into the bowl."

For more information, or to order the product, go to www.phone-hanger.com.

KineticElectrical®
smarter
Electricians Nationwide
www.kinetic-electric.co.nz

Home of Cycling's Avantidrome provides Olympians with world-class facility

By Roy Kane

Sometimes even a worthy project needs a champion to carry it forward and rally support.

In 2010, a regional bid team in the Waikato dreamed of establishing a national velodrome with an indoor track that would comply with Union Cycliste Internationale (UCI) standards. The trouble was the team didn't have the resources to get the wheels turning.

That didn't deter Livingstone Building NZ Ltd, whose managing director Mike Livingstone said yes when asked to support the Waikato Bid Team with a design and build offer.

"Our concept and costs came to $28.5 million, and in February 2011 the bid was successful. The challenge then was to put together the design team that would deliver on our promise," Mr Livingstone says, "and still satisfy more than half a dozen distinct user-groups."

The project moved up a gear with the formation of the Home of Cycling Charitable Trust, set up to promote health, fitness and physical well-being through the development of cycling and related facilities for public recreation.

Chief executive Geoff Balme says the trust is developing infrastructure, including the indoor velodrome (to be known as the Avantidrome), and space for related cycling support services that will quickly become nationally significant.

"Our mission is to operate world-class cycling facilities from which world-class cycling programmes are delivered," he says.

On land adjacent to St Peter's School in Cambridge, the site has easy public access — it's close to the National MTB centre of excellence in Rotorua, it's near the Cambridge BMX track (one of New Zealand's best), and it's not too far from the Rowing Centre of Excellence at Karapiro.

But it's sandwiched between State Highway 1 and a steep gully. CBM Team Architects principal Dominic Buckell talks about the positioning of the building.

Velodrome concept (Avantidrome render provided by CBM Team Architects).

Site confined by roads, with amenities/administration block in foreground.

End-point of truss after painting.

"The original concept was for a track with seating around it for 1500 spectators and an integrated two-storey amenities block. But at 10,000 sq m, the arena would fit in only one orientation," Mr Buckell says.

"Quite early on, the decision was taken to separate the amenities and administration block from the arena rather than keep them under the same roof. The envelope was designed to enclose the concourse and spectator seating, retaining within these the indoor track with its curved ends and banked surfaces."

The concept geometry for the Avantidrome was defined by LHT Design. The company's design engineer at the time was Toby Mason, now a director of CREATE Specialist Consultant Engineers.

"We envisaged the initial 3D form as generated by using a torus (doughnut) for the roof plane," Mr Mason says.

"This provided a rational geometry that would be easier to clad, without wrapping, and achieved the clearance height required over

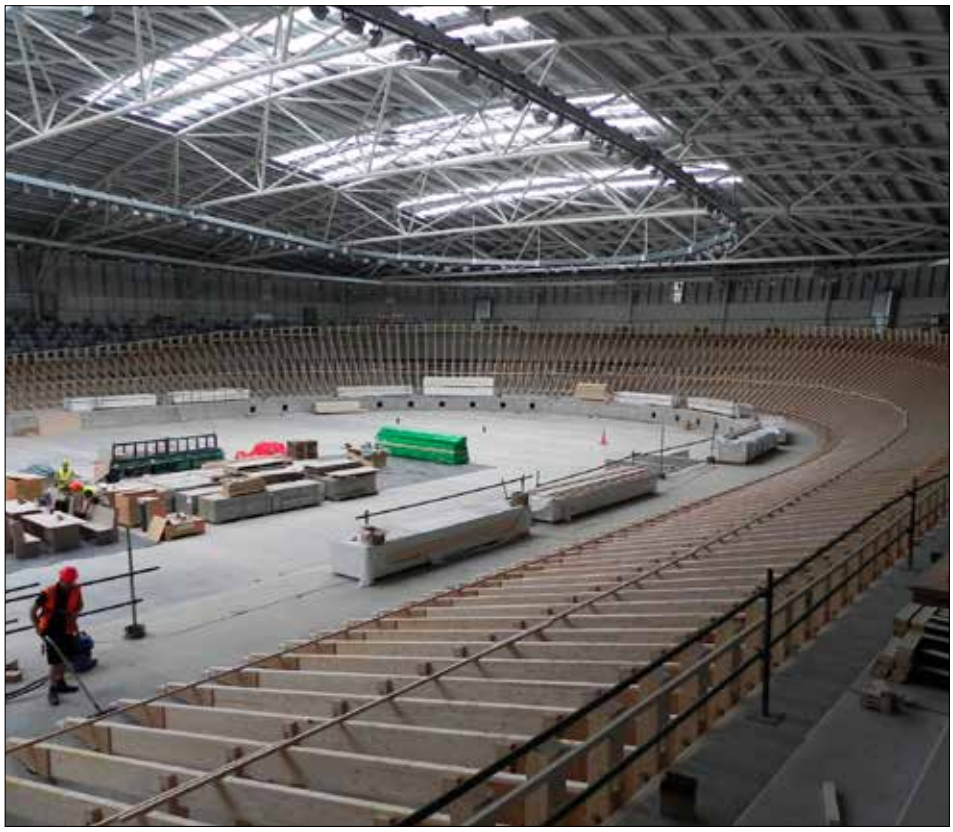
Continued page 30

Fabrication of trusses at Jensen Steel Fabricators in Tauranga.

www.scnz.org

SCNZ STEEL CONSTRUCTION NEW ZEALAND

Fixing truss end-point to column.



Frames set at 600mm intervals support the Schuermann track.

From page 29

the track, while reducing the cladding height around the perimeter eaves.

"Differences in scale and stiffness between the arena and the amenities/admin block meant it would be best if the two elements could move independently," he says.

"For the arena we settled on a tri-chord truss with two upper chords and one lower. The main trusses span the shortest distance across the arena. In the longitudinal direction, each truss is arrayed in elevation to allow the same truss to be used in multiple locations.

"The trusses are vertically supported around the perimeter on a series of columns. In order to increase the spanning ability of the trusses and provide lateral sway stability for the roof plate, we portalised the eaves connection between the roof trusses and the columns. Then, to give the building a more dynamic form, we inclined the columns outwards by 10 degrees.

"With the primary roof curvatures defined, we designed the double curved roof surface, incorporating the plan outline of the track, the perimeter seating and an allowance for the inclined facade.

"In effect, we developed a 'cookie cutter' outline and used this to cut into the toroid roof form. Thus the roof surface was defined on plan by the arena footprint and an eaves level that undulated in response to the cut form. The result was a rational, double-curved roof surface, optimised to the requirements of the space below, i.e., high over the main track and infield and a reduced height around the curved ends."

The brief required the design to be capable of increasing the seating capacity to 4000 when hosting a world event. The decision was taken to future-proof this by allowing the facades to be removed so that temporary seating could be added.

This drove the need to minimise lateral bracing in the wall plane by establishing fixity at the base and head of all the perimeter columns. The central roof bracing ensures that the necessary diaphragm action is available.

Meanwhile, movement joints were introduced between the main arena and the adjacent amenities block, as well as locally between the arena steelwork and the ground supported concrete concourse.

The scale of the building (115m long by 76m

wide and a maximum height of 19.8m), meant that wind loads would ultimately drive the design of the steelwork. Windtech, of Melbourne, Australia, was commissioned to conduct the wind tunnel testing, as the company has considerable experience of the wind assessment and modelling in such buildings.

Through the design development process, the arena footprint evolved and the adjacent administration block changed to a three-storey facility. The arena form was adapted to respond to these changes.

Ultimately, then, the 3D model provided by LHT Design became the base for the architect and the steel fabricators to use. Jensen Steel Fabricators of Tauranga won the contract for the detailing, fabrication, painting and erection of the main arena steelwork, subcontracting five of the nine roof trusses to Grayson Engineering of Auckland, together with the rolling of the truss chords and the specialised profiling of the ends of the CHS members.

Jensen contracts manager Bill Muirson has some telling statistics.

"Some 540 tonnes of hot-rolled steel Circular Hollow Sections (CHSs)

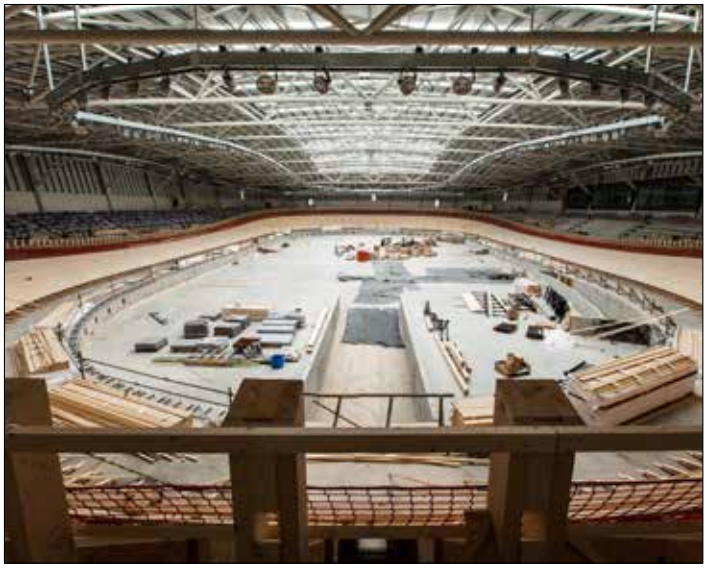
Continued page 32

It's seven metres from the arena floor to the top of the bank, all precision laid by skilled craftsmen.

Aerial shot showing progressive erection of trusses.

Roofing prioritised to ensure waterproofing for track laying.

A close-up of the 40 x 40mm lengths of the slow growing Siberian spruce.



The seating positions spectators a whisper away from the action.

From page 31

went into the arena, plus 103 tonnes of cold-rolled purlins. The nine tri-chord curved trusses are supported on a ring of 30 CHS columns (508mm diameter with a 26mm wall thickness x 12m tall). On average, the trusses were 76m in total length and 6m wide at the centre," Mr Muirson says.

"They were fabricated in three pieces with a 36m centre section and two 20m ends. Four end trusses (two per arena end) were made by Jensen Steel Fabricators and had slightly shorter ends to support the toroid roof form.

"Grayson Engineering fabricated the five central trusses and used their specialised plant technology for the profiling of the ends of all the truss CHS members. This technology enabled precise cuts to be made in a single operation with bevels for positional weld preparations.

"Transport of all the centre and end sections of the trusses was carried out at night, escorted by pilot vehicles, all wending their way from Auckland and Tauranga (over the Kaimai Ranges) to Cambridge."

Mr Muirson recalls the tricky sequencing that had to be followed for the erection. "The overnight and early morning deliveries of the truss centre and end assemblies were co-ordinated through one narrow arena entrance way. The components had to be positioned with the three cranes that would be involved in unloading and lifting. The centre truss assembly was, in fact, lifted directly from the truck into position. All of this took part within the dimensions of the arena, which diminished as we worked towards the last end and the entrance way."

Each truss (76m long at arena centre), had to be erected in three sections (middle and two ends), separately but concurrently, to take into account the outwardly leaning columns and minimal fixing tolerances and self-load deflections.

"First, the truss ends were hoisted, fixed to the columns and then, while the two ends were being held up just enough to accommodate the truss centre section, this was hoisted and lowered into position between the ends, so that the three chord splices at each joint could be bolted," Mr Muirson says.

"As the weight was taken up, this pushed the columns slightly outwards. The now complete truss settled in a predetermined deflection under its total self-weight. From the centre of the roof, each subsequent truss leaned over by three degrees to form the longitudinal roof curve over the arena. This was achieved by holding each erected truss at its correct tilt whilst all the struts were installed."

The Home of Cycling is near Cambridge — some say on The Road To Olympic Medals.

The amenities/admin block is a three-storey structure in which Jensen Steel Fabricators also installed 180 tonnes of hot-rolled steel section and eight tonnes of cold-rolled purlins.

Mike Livingstone adds the main contractor's perspective. "Certain stages just had to go right, and when it came to the main arena steelwork, Jensens stepped on board early.

"Our programme demanded one truss per week, and they delivered on time, with everything fitting perfectly. The steel structure of the arena had to be kept as light and efficient as possible. It moves more than the concrete concourse and the office block.

"All three elements had to be seismically separated, which resulted in joint detailing challenges for Jensen Steel Fabricators. Their accuracy was consistent and helped keep us on programme. The other subcontractors, likewise, helped us meet the challenge of doing things better and faster, so that at the end of the day, we kept the project within our $28.5 million target."

Because the design and installation of an indoor track is highly specialised, the contract was awarded to the world leader in velodrome installation, the German company of Schuermann.

The actual track surface is made from Siberian spruce 40mm square and cut in lengths of up to five metres. The bottom row is fixed first all the way around the track, then the next row and so on all the way up to seven metres, using a nailing technique that is a well-kept Schuermann secret.

The track lengths are pulled together by hand and nailed by hand — no clamps are used and no nail guns.

The result is that the track retains enough flexibility to be considered as "floating". Over its life, the track will expand and contract, with this flexible construction allowing that to take place.

Additional facts:

▪ The track is not perfectly symmetrical because of the complexity of the geometry of the seating and sight-lines.
▪ More than 6000 co-ordinate points were used to establish the exact position of the inner and outer limits between which the track had to be installed.
▪ Nothing can "cross" the track for safety reasons, so there are three tunnels providing access to and egress from the infield, one being the vehicle tunnel to the exterior.
▪ There are no windows around the concourse as bright spots of daylight and shadows could distract riders.
▪ The roof cladding is divided into three sections to allow for thermal expansion.
▪ The steel structure of the arena moves more than the concrete concourse and the office block. All three elements were seismically separated.
▪ The Trust bought the land from St Peter's School for $1. Should the Avantidrome ever stop being a velodrome, the school has the option of buying back the land for $1 plus the building at valuation.

Building industry in dire need of 5000 more apprentices

BCITO chief executive Ruma Karaitiana

The construction industry is still woefully short of building apprentices despite a massive 55% increase in new apprenticeship sign-ups in 2013, according to the Building and Construction Industry Training Organisation (BCITO).

In 2013 there were 3230 new sign-ups to the BCITO, in comparison to 2083 in 2012.

Although this is by far the largest increase in trainee numbers the BCITO has seen in recent times, chief executive Ruma Karaitiana says the industry is still short of 5000 apprentices.

"The building and construction industry is going through a period of rapid growth and demand, particularly in Auckland and Christchurch. The challenge — and the reality — of the nature of work in both cities is that everything is high priority," he says.

"In Christchurch, people can't cope with living in damaged homes for another year. In Auckland, the housing shortage is now so acute that starting the build is vital.

"It's estimated that because of the sheer magnitude of these projects, we're in urgent need of another 5000 building apprentices to meet demand."

Mr Karaitiana says the 2013 increase in apprentice numbers signals business confidence in the sector, following a decline resulting from the recession.

"The reality with apprenticeships is you can't have apprentices unless you've got employment. During the recession, builders cut back on costs and many had to reduce their staff," he says.

"Now we're seeing builders bring on more staff, which is a strong indicator that things are looking up in the building and construction industry.

"Most builders have strong order books, and they are feeling much more confident about the future. They are willing to make the commitment of taking on apprentices."

Mr Karaitiana says if Kiwis are looking to make a career choice or change, this is a fantastic opportunity to enter the industry.

"Building and construction is a cyclical industry. Everyone recognises that it has its boom periods, and it also has its quiet patches," he says.

"This is the best time you could hope for to enter the industry. The scales have tipped and our job matching service is seeing a huge surge in employers requiring apprentices, but the number of apprentices we have is nowhere near able to meet demand," Mr Karaitiana says.

"Apprentices entering the industry can be confident that they will get through their training and won't struggle to get established.They're entering a period where wage rates are better than ever, and there is a spate of interesting projects to get involved with. The opportunities are endless."

After recently merging with the Joinery Industry Training Organisation (JITO) and Decorating NZ, the BCITO is now the third-largest industry training organisation in New Zealand.

Employers looking for apprentices can contact the BCITO on 0800 422 486 — they may be able to put you in contact with career seekers.

Your invisible hand

By Lifemark general manager Geoff Penrose

Adam Smith first used this phrase to describe how an economy works — namely, that if people follow their own self-interest . . . then the invisible hand makes the economy better for everyone.

I like the idea that something invisible happens to make everything alright.

In a construction project, as a builder you follow the plans and with your own skills and experience you create something that did not exist before. You use your hands to craft the materials and enable the vision to become a reality. Without your visible hands there is no construction.

However, the invisible hand concept can still apply. The Lifemark certification process ensures that any home design can incorporate features that make that home work better in the future.

These are not complex and unusual features — rather they are the simple and smart design concepts that allow a property to reveal more of itself as the customer demands more from their home.

The home invisibly changes with them as their needs change, and it's all done at the initial construction stage so there is no expensive retrofitting cost or delay. It's inclusive housing for everyone.

There are 37 design features that allow a home to respond to the changing access needs of your customer as they age in their home, or as their circumstances change.

New Lifemark general manager Geoff Penrose

These include features such as 810mm clear wide doorways, level threshold entry, extra nogs in the bathroom walls for future grab rails, the choice of lever handles and other subtle features that are not visible to the uninformed eye at first glance.

Then, like a good wine, the building reveals more of itself as needs dictate.

The customer starts to see how their home can suit their changing needs, and suddenly what was invisible becomes clear that this was a well thought out home created by someone who cares.

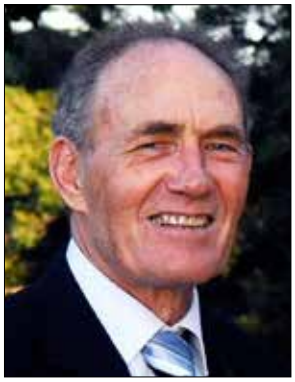
As an accredited partner you can include Lifemark certification, and offer plans and construction that reflect your vision and talent — and also incorporate the concept of the invisible hand that works for everyone.

For more information visit www.lifemark.co.nz.

Simple and smart design at play.

Never happened

Architect Don Bunting showcases what predicted advances promised — but failed to deliver — for the construction industry.



With scientific and social change occurring at an ever increasing rate, it's surprising what technology has failed to produce — and what has never materialised.

Perhaps the biggest con of the computer age was the myth of the paperless office. Futurists also predicted less work and more leisure for everyone, with all the dirty jobs being done by machines and robots. We were also going to be able to work just as effectively from home as in the office.

What these predictions failed to take into account was that as well as being, by nature, contrary, human beings are sociable animals. Work gives us some purpose to life and we prefer to operate collegially — with a few exceptions such as writers and the now ubiquitous online bloggers.

The design and construction industry contains any number of predicted advances that for a range of reasons never happened. And as a consequence, what did happen was not always positive.

Never happened:

A real performance-based building code.

Happened instead:

Acceptable solutions and leaky buildings

While these were not quite cause and effect, providing a range of simplistic "cookbook" solutions to meet the Building Code's performance requirements was simply a bad idea.

It was never going to work effectively and has had the opposite effect of dumbing down the industry to the lowest common denominator.

It also ignores the fact that buildings are constructed using branded building products and materials. Providing generic solutions, which designers and builders then have to convert as best they can into specific branded solutions, is beyond stupid — it was, and is, downright dangerous.

The concept of branded acceptable solutions was proposed in 2001 to the then BIA, and was based on a series of acceptable principles established by industry and government. A good idea that never happened, because of the growing clamour and concern around who or what caused so many buildings to leak.

Never happened:

Prefabricated houses

Happened instead:

Inefficient house construction continuing on the building site

Not sure why prefabricated houses never gained any real traction. Lockwood tried valiantly, but their construction approach was always going to be more expensive.

And prefabrication will only gain wide acceptance if it saves money and looks at least marginally attractive to its intended market. The name Lockwood still makes people think of beachside cottages.

Many small scale prefabricated elements such as roof trusses are produced — and there are some box-type holiday homes and cabins on the market.

However, there are fewer prefab elements now than I recall being used in the UK in the early 1970s. Back then we were dropping in whole framed floors and roof frames. And internal walls were delivered as complete 2.4 x 1.2m wide framed and lined sections.

Frank Lloyd Wright had a deserved reputation for expensive and not necessarily very weather-resistant buildings. He was always testing the boundaries of what was possible and sometimes tipped over the edge. His original design for the now iconic "Falling Water" proposed that the concrete parapets be covered in gold leaf.

The Frank Lloyd Wright archives also revealed some 900 drawings he prepared for the American Readi-Cut System of prefabricated houses between 1911 and 1917. Even Wright's famous powers of persuasion were not enough to win the day back then.

As a further reality check on how slow the introduction of new ideas and innovations has been in our industry, computer-stored and computer-generated construction details were being employed by large-scale contractors in England as early as the 1970s.

BIM may be the future, but it began more than 40 years ago. So don't expect a quick uptake by our very conservative industry.

A new enterprise called Prefab New Zealand is promoting a gradual increase in the use of prefabrication. However, the scale of the New Zealand construction industry counts against any future vision of houses appearing fully formed off production lines.

In the USA it has been shown that a minimum rate of three complete houses each day is needed before a production line becomes economic. Issues around quality assurance and proof of compliance may also count against complete factory production.

Never happened:

Computer on the back of the ute

Happened instead:

Our growing obsession with mobile phones and tablets

The concept of a laptop computer on every builder's ute or SUV was to allow for the delivery of quality data directly to the building site. Builders could access and respond to these multiple data sources as work progressed.

There are few technical hurdles to this occurring, and a number of web sites and data sources provide information of value and interest to builders. But it has never quite made it across the line as a well used, well resourced project tool.

I wonder if anyone has gathered statistics on how much of the air time on mobile phones and tablets is spent on useful pursuits? How much is used for essential private or business connectivity as against social chit chat, updating Facebook, checking news and weather, selfies and tweets?

And yet connectivity has become one of the leading cost factors in family and business budgets. Surveys in the USA have shown that cellphone costs alone have risen at a rate of 15% annually for the past 10 years.

With the future — if you can believe Telecom/Spark — being even more focused on delivering data and entertainment online, the increase in total connectivity costs is likely to skyrocket.

And how much of these significant cost increases are, from a business viewpoint, going to deliver added value?

Yes, there have been some efficiency gains due to everyone being better and more effectively connected. However in terms of real knowledge transfer, the gains are much more ephemeral.

I suspect that builders may need to wait a little longer for true online connectivity.

Crunching the numbers on retirement

Terry Sage of Trades Coaching New Zealand says be realistic when calculating the sum needed

Last month I mentioned I would fill you in on some scary, maybe unwelcome or possibly head in the sand, don't want to think about that sort of stuff tidbits.

So the subject today is retirement, or more recently known as succession planning. Which is accountant speak for retirement.

You hear the words "you must be looking forward to your retirement, all that time to yourself, no pressure from work, you lucky ……"

Now, for some, those words are an absolute dream — but, for most, they are not. Why? Because for the past 50 years they have got up, gone to work and filled their days with work. That's all they know — five, six or seven days a week then they come home and do more work shuffling paper.

How are they going to fill all that time? Golf, fishing, gardening, grandkids — there's only so much a grown adult can take surely. Now this could be considered a nice problem to have.

However, time on your hands can be made an awfully lot nicer if there was an abundance of dollars on hand. Which now brings up the real issue of retirement — can you actually afford to retire?

What is the dollar value for retirement? There isn't a set value — it depends on everybody's individual situation. Do you have debt, do you have a mortgage, do you have independents, do you live in town or in the country? The list is endless.

According to our successive governments, you can live on a single pension of approximately $12,500 annually — but reality says otherwise.

So here's your homework. Write yourself a list of everything you spend on non-business items for the next month — and you need to include everything. Then add in the things that the business pays for which will become your expense when you retire, such as mobile phones, petrol, printer ink etc.

Then cross out the items which you could do without. Be realistic here — you have worked for 50 years to get to this stage in life so why should you spend the next 20-plus living below the poverty line?

You should now have an average monthly figure that you need to retire on. Sorry, we're not quite finished though. Have you accounted for the annual bills or the quarterly bills such as rates and insurance?

What about entertainment, movies, shows and meals out. What about birthdays and the retail bliss of Christmas? Do you want a holiday every year?

Now we come to capital expenditure — will all your house contents last until you depart. If your house is like mine, dishwashers seem to be a disposable item these days — two in seven years (gripe over). Will your car be your last? Maybe, but don't forget the running costs of servicing, tyres, rego and breakdowns.

Dare I even mention how much that boat cost you. "No, not the boat," you scream. "What's the point of retiring if you're going to take my boat away?" For all these extras above the monthly figure you can only guesstimate but, again, be realistic.

So, for an annual sum what have you got — $50k, $70k, $100k, $150k? You could have any one of them and, for some, probably more — it depends on your individual situation.

With no mortgage or debt, at $50k this is only $1000 per week. Piece of cake you say we can live on that. Do you homework and then think again.

The next question is "have I got the means to generate this sum for the next 20 to 30 years if I am not working?"

Frightening fact — $75k times 25 years equals $1,875,000. Lotto's looking good right now but make sure you add in the price of a weekly ticket.

I have a spreadsheet if you would like it to help you calculate the dreaded numbers. Just call on 09 945 4880.

Next month we will look at ways to help generate these funds.

Become a fully-trained Business Coach

There is an opportunity to be a part of Trades Coaching New Zealand Group and become a fully trained business coach.

We are looking for builders and trades people who want a change in life. If you have owned and operated a successful building business, have a good insight in business practices, have exceptional communication skills and have a desire to take home a great income, we want to hear from you.

If this sounds like you, then contact us today!

Phone: (09) 945 4880
Email: info@tcnz.net.nz

www.tradescoachingnewzealand.co.nz

Trades Coaching New Zealand
THE BUSINESS SIDE OF CONSTRUCTION

New Zealand's National War Memorial

Dr Kerry Rodgers recalls a small but important lesson about Kiwi building stone.

Most readers will be familiar with the National War Memorial carillon in Wellington which was raised in the aftermath of the Great War. The dedication took place on Anzac Day in 1932, led by the Governor General Lord Bledisloe.

Today the memorial as a whole includes the Hall of Memories completed in 1964, the Tomb of the Unknown Warrior installed in 2004, and the planned National Memorial Park.

It salutes New Zealand's dead from the South African War, both World Wars, the Korean War, the Malaysian Emergency, the Vietnam War, and New Zealand's involvement in peace-keeping operations worldwide.

Four Rolls of Honour bear the names and ranks of 28,654 who made the ultimate sacrifice.

But it is the 51m-high art deco carillon that dominates the memorial complex. It was deliberately sited on a low spur of Wellington's Mount Cook so as to be visible from any part of the city and from ships entering the harbour.

A design competition in 1929 was won by Auckland firm Gummer and Ford for William Gummer's concept of a soaring, tapered tower, faced with wrought iron grilles and copper louvres, and housing one of the world's largest carillons — and the only one in New Zealand. As the Historic Places Trust notes, the art deco style is admirably suited to the function required.

Christchurch builders P Graham and Sons secured the contract for construction, with the foundation stone laid by Prime Minister Forbes on May 15, 1931.

This was a day and age when it was deemed appropriate that a war memorial should be constructed from rocks of the country that the soldiers had fought and died for. Either New Zealand or the Mother Country qualified. New Zealand stones got the nod for the new carillon.

The base of the tower was constructed from reinforced concrete and faced with South Island marble, while the inner courtyard was paved with so-called Coromandel Granite — the igneous rock tonalite.

The tower proper was also constructed from reinforced concrete but faced with pinkish-brown Putaruru Stone. It was this stone that would cause ongoing difficulties. Its attractive colour plus the ease with which it could be worked made it a popular facing stone for buildings in early 20th Century New Zealand.

It is a volcanic rock produced by one of the many eruptions of Lake Taupo, consisting of tiny fragments of glass and pumice pressed flat by the weight of overlying material while the glass is still hot, post-eruption.

However, Putaruru Stone does not weather well. It reacts readily with the elements and to a variable extent across its exposed surface. Eventually large flakes become plucked out.

Thirty years on, the tower of the carillon memorial was looking rather down-at-heel. Such is the way of government that it was not until 1982 that the stone facing was stripped and replaced by Takaka Marble.

The bells of the carillon proper are impressive. They were intended to twin the 53 bell carillon of the Peace Tower in Ottawa, Canada.

At the time of dedication, the 49 bells were installed in Wellington, with a total weight exceeding 30 tonnes. These ranged from a 5 tonne monster measuring 2m x 1.6m to a 4kg baby of just 170mm x 140mm. They had been cast in the UK by Gillett and Johnston.

A total makeover of the carillon in 1984 saw some bells replaced and new ones added. There are now 74, of which the Peace Bell weighs 12.5 tonnes, making it the largest in the Southern Hemisphere. All up the total bell weight of Wellington's carillon is the third largest in the world.

And, by the way, it was the same architects Gummer and Ford and the same builder P Graham and Sons who were responsible for the Hall of Memories in 1964.

A Tri-Service vigil at the Tomb of the Unknown Warrior on Anzac Day 2011. Gummer's art deco carillon soars behind, clad these days with Takaka Marble.

Image: Wikimedia Commons

© K A Rodgers 2013

The BPB — three reported decisions

Timothy Bates of Auckland law firm Legal Vision showcases three decisions made by the Building Practitioners Board (BPB) against three Licensed Building Practitioners (LBPs) pursuant to section 315 of the Building Act 2004.

The Building Practitioners Board is a quasi-judicial body that hears complaints made against Licensed Building Practitioners.

BPB Complaint No C1011

In this decision concerning an LBP with licence class in site/design, the Board had to consider the following particulars of complaint:

- He had used second hand timber to construct the deck when the quote was for new timber.
- Work had not been carried out in accordance with his quotation, and he sought payment in advance to complete the work.
- The quality of the work was substandard in that the deck was not level or straight, and had inadequate support.

An investigator was appointed by the Board, being a Registered Building Surveyor. The particular provision of the Building Act 2004 that the Board was required to consider was section 317(1)(b) which provides that:

"a licensed building practitioner has carried out or supervised building work or building inspection work in a negligent or incompetent manner; or"

It was held by the Board that in this instance the respondent lacked the ability and skills reasonably expected of an LBP to carry out the works, and therefore it was established that he carried out and/or supervised building work in an incompetent manner.

In particular, the deck had been built with the following defects:

- Lack of drainage between cladding and ribbon board which was likely to result in premature deterioration of the cladding.
- The use of small round washers had resulted in the crushing of timber. He should have used 50mm square washers instead.
- There were gaps between the bearers and the joists.
- The posts were out of line and not parallel to the deck.
- The bearers used were smaller than was required for the span.
- Some foundations had not been excavated to solid bearing.

In a separate hearing on the penalty to be imposed in accordance with section 318 of the Building Act 2004, this LBP lost his licence in respect of design and site immediately, but due to the fact that the building work surrounding the complaint had occurred more than two years previously, he was given the right to reapply for his licences 30 days thereafter. He was also ordered to pay costs of $1500.

BPB Complaint No C1015

This decision involved a roofer. This LBP had a licence in respect of site and carpentry. Again, section 317(1)(b) was at issue. The complaint against this LBP was that the roofing system had not been installed in accordance with the Metal Roof & Wall Cladding Code of Practice. He was further criticised for not having obtained a building consent for the work.

The Board found against the LBP in this way:

- Roof fixings. Neoprene washers were split and not in the correct location under the screw. Also, there were areas where fixings were missing.
- Screw holes had been left without screws and with no adequate method of preventing moisture ingress in breach of E2.
- Roof sheets were not lapped end to end in accordance with NZS 3604.
- Side lapping was not in accordance with E2/AS1.
- There were non-compliant flashings to penetrations, valley flashings, barge flashings.
- There were scratches on roof sheeting.
- Overhang of the metal cladding was less than specified.

It was decided by the Board that the roofing work as more fully particularised above did not comply with the Building Code which, in turn, established it had not been carried out with the proper level of care.

At the time of writing this article, no information was available on the penalty applied to this LBP.

BPB Complaint No C1012

In this decision an LBP was licensed for site and carpentry. The complaint made against him was that he had been engaged to perform a building contract which amounted to the renovation of a childcare centre.

He was paid in full, yet the council issued a Notice to Rectify, seeking that further work was carried out before a Code Compliance Certificate was issued. The complainant had to engage another builder to carry out the items identified in the Notice to Fix.

The Board found that, in general terms, the LBP had built what he had been asked to build in his scope of works, and the items identified in the Notice to Rectify were items outside the scope of his building contract.

Neither a finding of negligence nor incompetence was established.

Summary

It is clear that the Board is receiving complaints, and it is making decisions that are affecting the livelihoods of builders. The Board operates like a court, engages its own investigators, writes reasoned decisions and imposes penalties on LBPs.

This is an additional forum of complaint available to disgruntled clients, on top of the rights available to them in the courts and/or via adjudication/arbitration.

LBPs need to be aware of, and comply with, their obligations pursuant to the Building Act 2004.

Note: This article is not intended to be legal advice (nor a substitute for legal advice). No responsibility or liability is accepted by Legal Vision or *Building Today* to anyone who relies upon the information contained in this article.

LegalVISION
BARRISTERS & SOLICITORS

Legal Vision specialises in providing legal advice to the Building Industry

Principal: Timothy Bates LLB (Hons)
DDI: 09 379 9668 ext: 1 | F: 09 379 9670
tim@legalvision.co.nz www.legalvision.co.nz
PO Box 147423 | Ponsonby 1144 | Auckland
Unit 63 210-218 Victoria Street West | Central Auckland 1010

Building Consents Information

For All Authorisations, February 2014

Dwellings	**$715,848,000**
Domestic Outbuildings	**$10,203,000**
Total Residential	**$726,052,000**
Non-residential	**$376,189,000**
Total All Buildings	**$1,102,241,000**
Non-building Construction	**$20,589,000**
Total Authorisations	**$1,122,829,000**

Number of new dwellings consented

	Feb 2014	Jan 2014	Feb 2013
Far North District	13	16	11
Whangarei District	37	37	25
Kaipara District	19	9	9
Rodney District	121	85	69
North Shore City	77	38	79
Waitakere City	66	54	41
Auckland City	63	135	173
Manukau City	69	62	38
Papakura District	46	37	43
Franklin District	41	35	36
Thames-Coromandel District	16	10	14
Hauraki District	6	1	3
Waikato District	35	23	33
Matamata-Piako District	8	4	8
Hamilton City	50	47	82
Waipa District	39	24	27
Otorohanga District	6	2	2
South Waikato District	2	1	2
Waitomo District	0	3	0
Taupo District	8	9	6
Western Bay of Plenty District	33	16	32
Tauranga City	75	70	52
Rotorua District	5	6	6
Whakatane District	2	7	5
Kawerau District	0	0	0
Opotiki District	1	1	0
Gisborne District	4	4	11
Wairoa District	1	1	0
Hastings District	13	17	13
Napier City	10	8	6
Central Hawke's Bay District	5	2	1
New Plymouth District	43	26	27
Stratford District	0	0	3
South Taranaki District	3	8	3
Ruapehu District	1	3	2
Wanganui District	7	7	9
Rangitikei District	4	1	0
Manawatu District	19	4	5
Palmerston North City	9	6	11
Tararua District	0	2	1

	Feb 2014	Jan 2014	Feb 2013
Horowhenua District	4	4	8
Kapiti Coast District	12	33	10
Porirua City	21	4	10
Upper Hutt City	12	10	14
Lower Hutt City	17	14	8
Wellington City	44	61	23
Masterton District	2	1	5
Carterton District	3	3	9
South Wairarapa District	3	16	2
Tasman District	17	16	19
Nelson City	21	24	31
Marlborough District	10	14	21
Kaikoura District	2	1	6
Buller District	2	2	8
Grey District	4	8	4
Westland District	4	1	2
Hurunui District	6	14	13
Waimakariri District	72	81	105
Christchurch City	301	288	158
Selwyn District	127	92	69
Ashburton District	6	17	22
Timaru District	11	22	16
Mackenzie District	4	4	4
Waimate District	1	1	5
Chatham Islands Territory	0	0	0
Waitaki District	11	2	7
Central Otago District	10	10	10
Queenstown-Lakes District	40	50	25
Dunedin City	26	15	26
Clutha District	4	9	1
Southland District	5	7	3
Gore District	6	0	1
Invercargill City	3	10	9
Area Outside TA	0	0	0
Total	**1768**	**1640**	**1542**

- Based on 2006 census areas
- Each dwelling unit in a housing project is counted separately
- Figures in these tables may differ from published statistics

Source: Statistics New Zealand

What's On the Web?

www.buildingtoday.co.nz

BT online poll:

Recently we've been asking you the following in our online poll:

Are you planning to hire more staff/take on apprentices in the next six months?

As expected, the result showed 62% of respondents answering "Yes" while 38% said "No".

Go to our online poll at www.buildingtoday.co.nz where we're asking the following:

Do you think Government legislation giving building owners 20 years to strengthen earthquake-prone buildings to 34% of the new building standard is unreasonable?

Skills Maintenance Points

One hour of learning = 1 point

Read *Building Today* magazine and earn Skills Maintenance Points

For more information go to www.dbh.govt.nz

Subscribe to *Building Today*

Building Today is the industry news magazine that keeps you up to date with what's happening in the construction industry. Subscribe today by completing this coupon and FREEPOSTING it with your cheque.

Attached is a cheque (payable to Taurean Publications Ltd) for **$57.50** (incl GST, GST No: 66 019 802).

OR

Email postal and other details from below to: andrew@buildingtoday.co.nz

AND direct credit payment to: Taurean Publications Ltd (Account No: 03 0285 0142474 00)

FREEPOST to: *Building Today*, Freepost 67 299, PO Box 35343, Browns Bay, Auckland 0753

Name: _____ **Company:** _____

Address: _____

Type of business: _____

Email: _____ **Ph:** _____

Signature: _____ **Date:** _____

CARTERS SALE ALERT

SPEND OVER $300 EXCL GST FROM APRIL TRADE OFFERS AND RECEIVE*:

FALLING PRICES

HOT OFFERS

LIVE BARGAINS

LOUD OFFERS

***Soft Shell Jacket Terms and Conditions:** 1. The promotion period starts on 1 April 2014 and ends on 30 April 2014. 2. To be eligible for the reward, a qualifying customer must, during the promotion period, order and be invoiced for over $300 (excluding GST) on any products from Carters in the April 2014 Trade Offers. 3. A qualifying customer will receive one free Soft Shell Jacket. 4. Promotion is open to trade account holders only. 5. Entry is automatic on invoices raised for trade account holders. 6. Qualifiers are based on invoice date not order date. 7. To be eligible for the reward, qualifying customers must meet Carters' Standard Credit Criteria and have complied with Carters' Standard Terms and Conditions of Sale, both during the promotion period and up until the reward is received. 8. A maximum of one reward per customer. 9. The actual reward may differ slightly from that pictured. 10. Limited stocks of reward available, while stocks last. 11. An alternative reward may be offered at the discretion of Carters. 12. The reward cannot be substituted for cash or alternatives. 13. The manufacturer of this reward is not associated with this promotion. 14. Offer not valid with any other promotion running concurrently. 15. Staff of Carter Holt Harvey Limited are ineligible to qualify. 16. The reward is distributed after the promotion is completed and the applicable account is paid. 17. Carters reserves the right to amend, terminate or suspend any aspect of the promotion (including the reward) at any time in its sole discretion.