

ISSUE 71

UNDER CONSTRUCTION

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FOREWORD VIEW FROM THE GM OPERATIONS



Embracing change



We can all benefit from driving and adapting to industry change

Henry Ford once said: "If you always do what you've always done, you'll always get what you've always got."

Most business coaches would tell you that this quote is inspiration for change; however, with the level of change experienced within our industry of late, there's little confidence that doing what you've always done will even deliver what you've always got.

Take the Auckland building landscape, for example – designing and constructing 200m² homes is becoming less and less feasible due to the shortage of land. As such, it looks like a case of diminishing returns for any builder specialising in that one area.

We often encourage our builders to adapt to industry and business change, and it's just as important we do so ourselves. This issue of *Under Construction* highlights several of our recent initiatives, including LBP sessions conducted in Mandarin, a new fastenings delivery service, an increased level of sponsorship for apprentices and landscapers, and a new fundraising activity.

Making adjustments based on new developments and experience is being driven across all areas of the industry. In this month's edition, we asked LBP Registrar Paul Hobbs some hard questions about the integrity of the LBP scheme, and whether it might need updating in response to recent licence cancellations. While there's no immediate changes on the horizon, the responses certainly show that the current process is always open to evolution.

We hope you enjoy this edition of *Under Construction*, and that it aids development in your business – if, or where, it may be required.

Gary Woodhouse

General Manager Operations



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SKILLS MAINTENANCE

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- 10 MEGAPIXEL
- TOUCH SCREEN
- 1440P 60FPS
1080P 60FPS
- WATERPROOF
TO 10M





James Hardie winter warmers



By simply answering a product-related question on the PAC Facebook page, 12 lucky PAC members scored James Hardie prize packs! Pictured are Andrew Wilkin (left) Andrew Hopley (centre) and Rachel Corbett (right) collecting their prizes at their local PlaceMakers branch.

Apprentice breakfast Taurus tool belt giveaway



PAC's information brekkie at PlaceMakers Dunedin was well-attended by ITAB carpentry apprentices and faculty members from Otago Polytechnic.



Once again, Taurus provided two fantastic tool belts to PAC members. Brennan Clarke (pictured) walked away with the Hipster tool belt, while Jesse Newton scored a Split Leg tool belt.



Wheelie good names!

We asked PAC members to help name a new range of MasterTrade wheelbarrows. After much deliberation, the product category team declared Nick Posa the winner for suggesting MasterTrade Max Pour Black Edition 90L, MasterTrade Tuffdeck Black Edition 72L and MasterTrade BarrowMax Black Edition 72L. Croy Parrish and Jordan Dunweg received honourable mentions, with all three earning PlaceMakers gift cards for their efforts.



Apprentice of the Month

MAY

Cladding a house with a first-year apprentice when you're only two years into your own apprenticeship is no simple task, but Joel Murray managed it with flying colours

Hamilton-based Joel was asked by his boss to finish cladding a house alongside a first-year apprentice, which meant he had to take the lead on the project.

Joel carefully studied the James Hardie weatherboard online manual and double checked all measurements to ensure they were accurate.

Joel's boss was very impressed with the outcome and both lads' efforts, with the house all ready to be painted. When

asked what he learnt from the experience, Joel said: "Every day you will be faced with new challenges, and you need to see them as opportunities to grow. It takes time to study each and every product to ensure everything you have done is to the right specs, but it's essential to success."

"If you're doing something, take your time to make sure you get it right – the more you do it, the faster you become!"



Joel Murray collects his prize from Vic Ankersmit at PlaceMakers Te Rapa

The judges were also impressed with Joel's approach, saying: "He made sure to put his best foot forward when left in charge. Well done Joel!" ■

JUNE

Matt McHugh is a second-year apprentice from Auckland, who earned the honour of being named June's Apprentice of the Month for overcoming a unique challenge

Matt was asked to install a product that no one in his company had worked with before – Kooltherm K17 insulated plasterboard.

Adding to the difficulty was the fact that they received the wrong quantities, meaning there weren't many extras. This meant that Matt not only had to figure out the best way to attach the sheets, but also fix them in the most efficient way to reduce wastage.

First, he carefully read the product installation instructions. Secondly, he used 50mm ramset nails in areas that were going to be covered by paper tape and plaster to keep the sheets

in place while the glue he used to fix them dried.

To work around the shortage, Matt created an extra sheet join on one wall – a much better solution than waiting a week for more of the specialty product.

The end result was a top finish, which earned Matt praise from his foreman and from the judges "for thinking outside the box and being solution-focused".

"When you face a tough situation, generally you can achieve the desired result using what is already available on site," says Matt. "If you think



Matt McHugh receives his prize from Bob Solanki at Wairau park

outside the box a little, you may surprise yourself. Attaching insulated plasterboard with concrete nails is pretty far-fetched, but it worked a treat!" ■

Don't forget!

Each winner of Apprentice of the Month is entered in the selection process to be named 'The Novice Who Nailed It'. The winner will receive the ultimate bragging rights and a prize valued at over \$500 (inc GST).

Charitable acts

PlaceMakers turns pink ahead of Blue September

Sadly, it's likely that everyone reading this will know someone who has been affected by cancer. Supporting cancer-related charities is one way in which many of us try to make a positive difference. PlaceMakers is already a long-term sponsor of the Prostate Cancer Foundation's annual Blue September appeal. This year, head office broadened its scope to help raise funds for the Breast Cancer Foundation's Pink Ribbon initiative.

Martin Brannigan, Category Manager, organised PlaceMakers fundraiser – which totalled more than \$1,700 – and plans to make it a regular event.

"We ran a range of activities, including raffles, multi-days and bake sales. Everyone was really happy to get behind the cause and I hope to make it a yearly event," says Martin.

While the inspiration for supporting the Breast Cancer Foundation was in part to balance out the company's male-focused Blue September support, Martin acknowledges that cancer affects entire families, regardless of

who is diagnosed, so support for either charity works both ways.

"Another important aspect for PlaceMakers is simply being a good corporate citizen. It's something we take very seriously," says Martin.

Once again, PlaceMakers branches nationwide are gearing up to get behind Blue September with a range of awesome events

"This year, we've also been involved with the charity Give a Kid a Blanket. As the name suggests, they're all about ensuring children in need have access to warm bedding. We donated a number of sleeping bags to them."

CHARITY BEGINS AT HOME

As part of its annual Blue September appeal, PlaceMakers offers free blood tests to its male staff at head office.

"Last year, we had around 40 people come in and get checked. The first year we only had about six people volunteer, until I spread the word that it was a simple blood test – another 20-odd signed up almost immediately!

"A lot of people still imagine a gloved hand when they think about getting checked for prostate cancer. I think it's important to raise awareness about the role that early detection plays in successfully treating the disease and the fact that a blood test is all that is actually required."

CLEAR YOUR CALENDAR!

Once again, PlaceMakers branches nationwide are gearing up to get behind Blue September with a range of awesome events, including the Bikers in Blue motorcycle rally, Whakatane's annual charity golf tournament and word on the street is that PlaceMakers Dunedin crew is looking at entering a car rally! Stay tuned for more updates.

To find out what's happening near you, check in with your local account manager. ■



PlaceMakers head office raised more than \$1,700 for the Breast Cancer Foundation through initiatives such as 'wear something pink' day



Southland legend Jimmy Cowan, who made 51 appearances for the All Blacks, was a star attraction at the 2017 bi-annual Southern Scooter Challenge



The annual Bikers in Blue motorcycle rally has become a staple of the Blue September calendar, with more and more branches signing on each year

Fast(enings) delivery drives efficiency



Three roving vans are bringing an extensive offering of more than 260 products directly to PlaceMakers Auckland customers

PlaceMakers Direct gives Auckland customers instant access to essential materials

PlaceMakers new mobile delivery service, PlaceMakers Direct, is proving a hit with builders throughout the Auckland region.

The service is an evolution of PlaceMakers 'Man in a Van' programme and was launched two months ago, with three vans now covering a territory from Warkworth in the north to Pukekohe in the south.

PlaceMakers Direct Manager Simon Lytollis, who has nine years of experience working in the fastening industry, says that the service is focused on fastenings and fixings – with the vans stocking more than 260 main line products.

"My team and I all have extensive product knowledge of fastenings. It is often hard for builders to forecast or estimate the exact quantity and type

they will need until they're standing right in front of the job," says Simon.

"PlaceMakers Direct means that we're able to visit our customers on site and deliver exactly what they need. It also means that, when they need it, we're able to provide them with guidance and advice specific to the project they're working on."

If a customer is after an item not immediately available, they can request it in person or call 0800 PM DIRECT to place an order. Simon says that customers appreciate the extra level of service.

"We've found that when we make a delivery, they will often have another request. They also like checking in with their subbies to see what they might need. It's just a really efficient way to for everybody on site to get the

fastenings and fixings they need to complete a job without the burden of leaving the site for a period of time."

While the service is relatively new, Simon is hoping to add more vans to the PlaceMakers Direct fleet within the next 12 months.

"We're always looking at ways to do things better and make life easier for our customers. With more vans, we'll be able to reduce delivery times and increase the number we can make in a day. It's a win-win!"

If you're a PlaceMakers customer based in Auckland and want to take advantage of PlaceMakers Direct, call 0800 PM DIRECT (0800 763 473 28) to place an order or request a site visit and enjoy the luxury of having materials delivered to your (client's) door! ■

PlaceMakers backs Mandarin-speaking LBPs



Dan from Star Homes Ltd found the LBP session very useful



Max from Treasure Homes Ltd thanked PlaceMakers for hosting, saying "it just makes our job much easier"



PlaceMakers New Lynn welcome almost 80 builders to its session



John said the seminar was much appreciated, as it made it easier to upskill



More than 50 builders attended the LBP session at PlaceMakers Mt Wellington



More than 40 builders attended the LBP session at PlaceMakers Albany

For almost seven years, PlaceMakers has been committed to helping its builders earn their required Licensed Building Practitioner (LBP) points. While the framework of the points system has changed over the years, our investment in providing point-earning learning opportunities, which are required to renew their licences, has not

PlaceMakers customers can earn all their elective points required over a two-year period through PlaceMakers initiatives such as reading *Under Construction* (available in hard copy and online) and attending PlaceMakers Skills Maintenance training seminars throughout NZ.

Builders can set up their profile online called 'MY LBP', which allows them to

check their progress (eg, completed and incomplete quizzes) and review, print or email quiz results as proof of their learning.

PlaceMakers also seeks to help LBPs complete their mandatory activities – reading *Codewords* articles and documenting on-the-job learning – by including all *Codewords* article in *Under Construction* – both in print and

online. You can track your progress for these on 'MY LBP' as well.

CATERING FOR CHINESE BUILDERS

With the Chinese building community estimated to be involved in the construction of 30% of properties built in Auckland, PlaceMakers has initiated a series of LBP seminars translated into Mandarin for builders in this region.

PlaceMakers Mt Wellington, New Lynn and Albany host Mandarin LBP sessions for their customers in conjunction with key suppliers and the feedback is overwhelmingly positive.

LBP SESSIONS – JUNE 2018

The most recent series, completed in June, was co-hosted by Winstone Wallboards, which manufactures GIB plasterboard, and the training focused on GIB Intertency Barrier Systems for Terrace Homes. Builders received two LBP skills maintenance points for attending.

PLACEMAKERS NEW LYNN

PlaceMakers New Lynn welcomed around 80 builders to its session, which PlaceMakers Asian Segment Trade Sales Manager Jeff Li said was hugely successful.

"Our Chinese customers have always been very willing to learn, it's just that previously many of them haven't

been able to get a lot of value from our seminars because of the language barrier," said Jeff. "We had a great turnout and feedback was really good; we had a lot more engagement and questions."

Max from Treasure Homes Ltd was very grateful to PlaceMakers for "arranging an LBP session in Chinese, it just makes our job much easier. Please keep doing it".

PLACEMAKERS MT WELLINGTON

PlaceMakers Mt Wellington also hosted a successful LBP session for its Chinese builder customers, with more than 50 builders in attendance.

Asian Business Manager Keven Chen said they received positive feedback from attendees, who were touched by the initiative.

"I was very inspired by PlaceMakers

commitment to helping builders from different communities," said Auckland builder Roy.

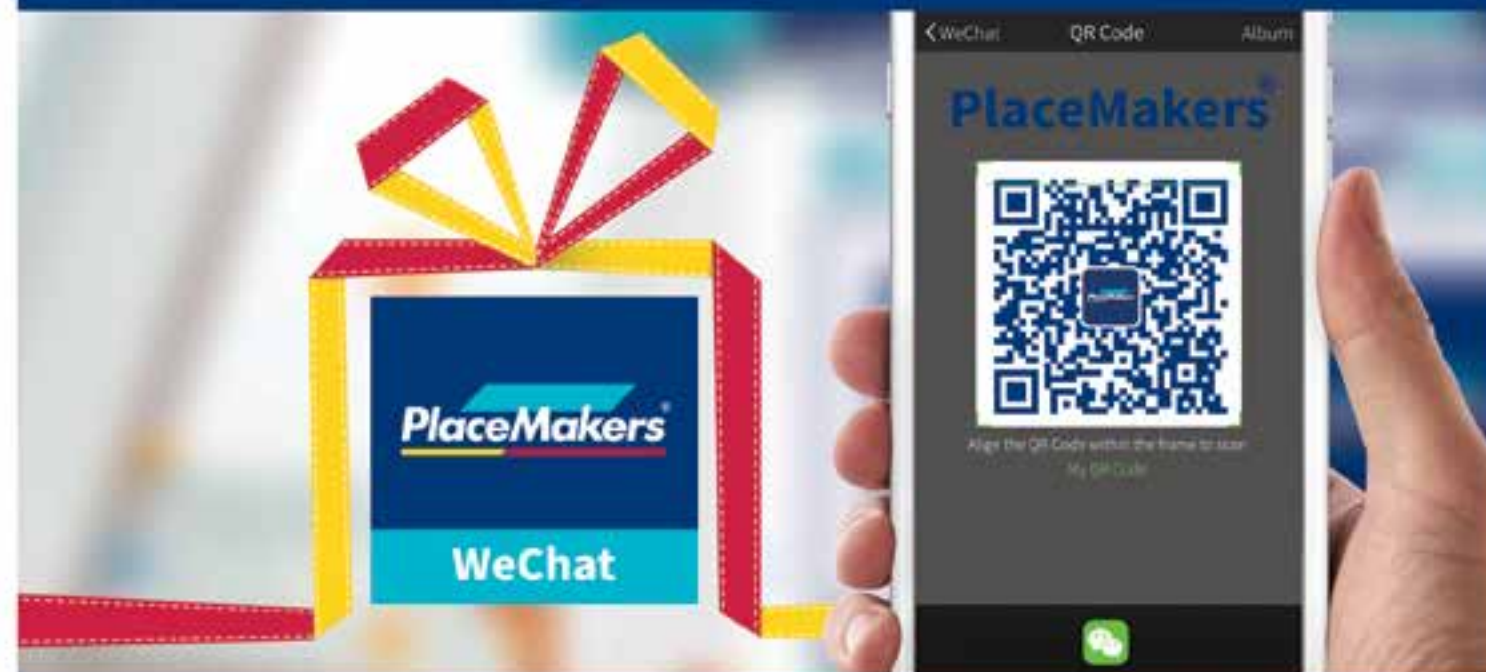
Simon said it was a great learning opportunity: "It's good to learn a new system and great to come to an innovative seminar where I can understand the content."

PLACEMAKERS ALBANY

PlaceMakers Albany also had a great turnout at their session, with 40 customers attending. Albany Account Manager Ming Chen said the builders were very grateful for the opportunity.

"Great stuff!", said attendee Mr Xing. "No other merchant has ever done such a great job of hosting such a fantastic seminar, which delivers extra value to me. Thanks PlaceMakers and Winstone Wallboards. I will keep on using PlaceMakers as my main supplier." ■

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Upcoming Events | Promotions | Industry News | Competitions | Ways You Can Earn LBP Points

How to be the best.

Builders' Business is a column by builders for builders. Its objective is to provide a forum, particularly for small business operators, in which to share knowledge, experience, tips and ideas

Q: What do you think are the most important skills a good builder needs?

Firm: Cove Construction
Principal: Nick Gill
Location: Whitianga
Staff: 19

Firm: Dimension Building Ltd
Principal: Richard Phiskie
Location: Timaru
Staff: 10

Firm: The Little Pig Building Company
Principal: Nick Marer
Location: Nelson
Staff: 4

From a practical perspective, being able to work well within a team and having good finishing skills are big ones for me. You also need a good work ethic and shouldn't be someone who likes taking short cuts.

One thing the industry really needs to work on is improving tradespeople's business skills. Here anyone can call themselves a builder and do contract work, they don't even need to be trade qualified.

When I was working in Australia, I had to take a six-week business management course before I was able to work as a contractor. It covered things like setting your rates, calculating expenses and understanding your tax obligations.

No one necessarily teaches you these things and, as a business owner, I found those skills really useful when I started out. I would recommend anyone looking to set out on their own take a similar course.

Having a passion for the trade is the most important thing I look for in my builders. I don't know if that would be considered a skill as such, but I do think it's a predictor of quality workmanship and it's not something you can teach.

A good attitude is also a really important attribute, on and off site. Conversation between builders, customers and contractors is key to success, and a good attitude makes all communications easier.

Having a passion for the trade is the most important thing I look for in my builders. I think it's a predictor of quality workmanship

I think if you combine a good attitude and passion for the trade, every other important or required skill is attainable.

Communication is key, in my opinion. That includes effectively communicating your expectations to your clients, staff, sub trades and suppliers, and being honest about what you can and can't do, because it means that everyone knows exactly where they stand.

The other important part of the equation is making sure you listen to what they are saying to you, particularly clients. That way you understand what it is they want and, if you're able to deliver that, can successfully negotiate towards a solution.

Builders often don't like having tough conversations with clients, as they can lead to confrontation and you do sometimes end up feeling like a counsellor. However, people are going to react how they react and you need to be prepared to stand up and explain why something might not be best trade practice and how the alternative will be preferable in the long run.

In my experience, when people understand why you're doing what you're doing, they're much happier with your work and the end result.

Now have your say...

WHAT DO YOU THINK ABOUT PRE-FAB CONSTRUCTION AS A SOLUTION TO NEW ZEALAND'S HOUSING SHORTAGE?

ANSWER THIS QUESTION TO ENTER OUR QUARTERLY PRIZE DRAW!

Email your answer with your full name, contact phone number, company name, number of full-time staff and the city or town in which you're based to editor@pmundersconstruction.co.nz. All responses must be submitted by 25 September 2018. The answers to this question will be published in *Under Construction* October/November

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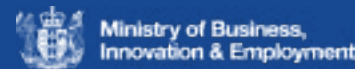
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Tackling tricky flashing



One of the trickiest flashing details to design and construct correctly is a balustrade-to-wall junction flashing. This Codewords article gives a quick overview of this detail and provides some useful tips and other step-by-step information on how to correctly install this type of flashing

The junction where the capping of an enclosed balustrade meets the face of the main exterior wall of a building (typically at the end of a deck) is a high-risk location for weathertightness failure.

Where a metal cap flashing is used along the top of the balustrade, designs to Acceptable Solution E2/AS1 require fabricated metal saddle flashings to make these junctions weathertight. However, the metal saddle flashings must be positioned correctly to ensure the junctions are weathertight.

DIFFERENT SADDLE FLASHING AT FRONT OF CAVITY

Figure 12 of E2/AS1 requires these saddle flashings to be positioned at the front of the cavity (immediately behind the outer cladding) – see NOTE (1) and detail (c) in the drawing. Placing these flashings at the front of the cavity reduces the likelihood of water entering the cavity where the flashing passes through it.

Importantly, this approach is different to most other cavity flashing details provided in E2/AS1. The narrow width of the balustrade means that only a very small volume of water could enter the cavity of the main wall above, so a different approach is acceptable. Any

such water will instead run down to the flexible flashing tape where the sloped packer meets the main wall underlay, then be diverted to the adjacent cavity beside the balustrade, and eventually drain out its base.

GETTING IT RIGHT

E2/AS1 has specific requirements for parapets and enclosed balustrades:

- No penetrations are allowed in the top surfaces of parapets and enclosed balustrade walls. Where rails are required on balustrades, they must be side-fixed through the cladding into the framing as per E2/AS1 Figure 19 (on page 58 of the E2/AS1 document).
- The sides of cappings must overlap the cladding laps on both sides as per E2/AS1 Table 7 (on page 40) situation 2 or 3:
 - 70mm plus kick-out (or bird's beak for inside edge of enclosed balustrades as per E2/AS1 Figure 5 on page 38) for low, medium, high and very high wind zones
 - 90mm plus kick-out or bird's beak for extra high wind zone.

- All claddings on parapets and enclosed balustrades must be installed over drained cavities, except vertical corrugated steel
- In extra high wind zones, all claddings must be installed over a rigid wall underlay, consisting of minimum 7mm H3 treated plywood or 6mm fibre-cement sheet.

Refer to E2/AS1 for references.

MORE DETAIL IN FLASHINGS SUPPLEMENT

BRANZ has published step-by-step diagrams showing the installation sequence for the components to these junctions in their recent Build flashings supplement, which is available on the Build Magazine website.

As with the installation of any flashing, sequencing of installation steps is key to a good outcome. The balustrade-to-wall junction can be found in section 4.5 of BRANZ's 'Build flashings supplement'. This key resource provides a comprehensive overview of construction sequencing for most common residential flashing applications, and explains the installation process. ■

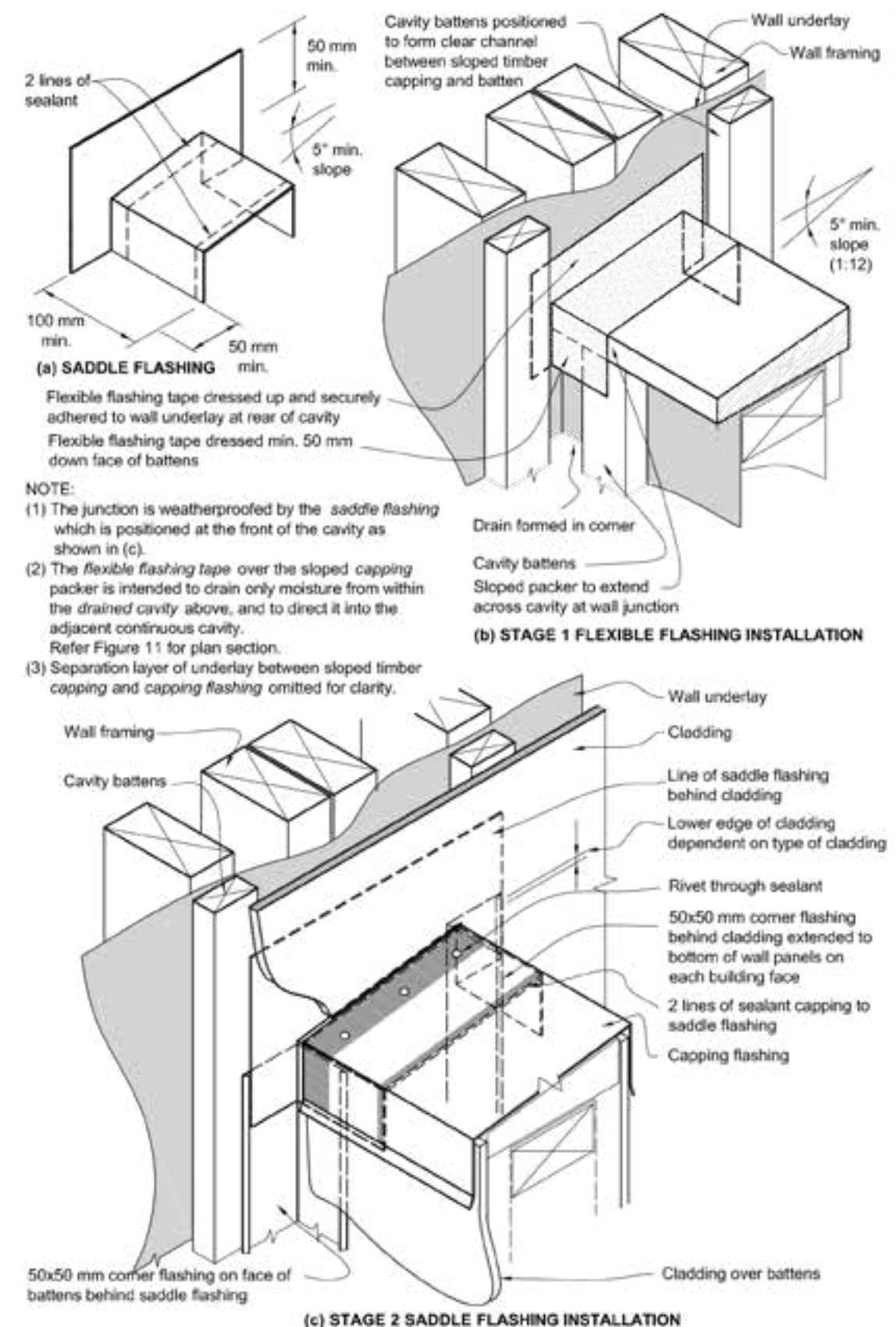


Figure 12: General junction of parapet and enclosed balustrade to wall

CODEWORDS QUIZ ISSUE 84



1

What is the minimum slope allowed by E2/AS1 for the top of a metal saddle flashing to a parapet or enclosed balustrade?

- a) 15 degrees
- b) 5 degrees
- c) Depends on the wind zone and average rainfall at location

2

Using E2/AS1 can you penetrate the upper surface of a parapet or enclosed balustrade saddle flashing?

- a) No
- b) Yes, but it depends the wind zone
- c) Sometimes
- d) Only if the homeowner signs a disclaimer

3

What cover is required by E2/AS1 to the sides of a saddle flashing in a VH wind zone?

- a) 70mm
- b) 25mm
- c) 90mm



Essential anchors for bottom plates

Anchors that fix bottom plates to concrete slab-on-ground floors are an essential component of timber frame construction as they secure the upper building structure to the foundation

They must be able to withstand forces in three directions – uplift (tension), along the wall (in-plane shear) and across the wall (out-of-plane shear).

TWO OPTIONS FOR FIXING BOTTOM PLATES

Section 7 of NZS 3604:2011 Timber-framed buildings provides two options for fixing bottom plates to concrete floor slabs:

- Cast-in anchors consisting of M12 bolts and either 50 x 50 x 3mm square washers or 55 x 3mm round washers that are cast into the concrete; or
- Tested proprietary anchors that are inserted in the concrete once it has sufficiently cured.

A range of proprietary anchors are available, including anchors screwed into pre-drilled holes, anchors chemically grouted into pre-drilled holes, expanding or wedge anchors.

The focus here is on screw-type anchors inserted into pre-drilled holes.

ANCHORS SCREWED INTO PRE-DRILLED HOLES

Screw-type anchors were initially designed as removable fasteners for fixing plant and machinery to concrete walls and floors. In residential and commercial construction they have become a popular option when inserted into pre-drilled holes, for fixing timber bottom plates to concrete floor slabs. Screw-type anchors offer some advantages over other types of proprietary anchors as they are:

- Quick and easy to install – drill a hole in the correct location in the concrete floor, align the timber

framing and install the screw anchor using either a power driver or manual socket or wrench.

- Easily removed.
- Less likely to cause damage to the concrete as they do not have an expanding wedge or sleeve that applies an expansion force.

A FEW THINGS TO CONSIDER

There are some considerations if you are going to install screw-type anchors into concrete foundations:

1. Have the anchors been tested to demonstrate they have the required capacity to meet the requirements of NZS 3604:2011?

Anchor capacity must meet the performance criteria for external and internal walls described in NZS 3604:2011 paragraphs 7.5.12.3 and 7.5.12.4. These are shown below in Table 1.

2. Can screw-type anchors be used to hold down walls containing bracing? Proprietary anchors may be used as hold-downs for walls containing bracing but require additional uplift capacity depending on the bracing unit (BU) ratings:

- 150 BUs/m – 15 kN uplift fixings
- 120 BUs/m – 12 kN uplift fixings.

Proprietary anchors should also have test results to demonstrate that they have been tested and meet the NZS 3604: 2011 requirements for their intended use.

3. Can adequate cover to the anchor be achieved, particularly in exposure zone D (as described in NZS 3604:2011)? Figures 1 and 2 provide two details of how the maximum cover can be achieved.



Anchor capacity must meet the performance criteria for external and internal walls described in NZS 3604:2011

TABLE 1: MINIMUM HOLDING CAPACITIES FOR PROPRIETARY ANCHORS		
TYPE OF FORCE		CAPACITY (KN)
EXTERNAL WALLS	Horizontal in-plane (along wall)	2
	Horizontal out-of-plane (across wall)	3
	Vertical (uplift)	7
INTERNAL WALLS	Horizontal in-plane (along wall)	2
	Horizontal out-of-plane (across wall)	2

FIGURE 1

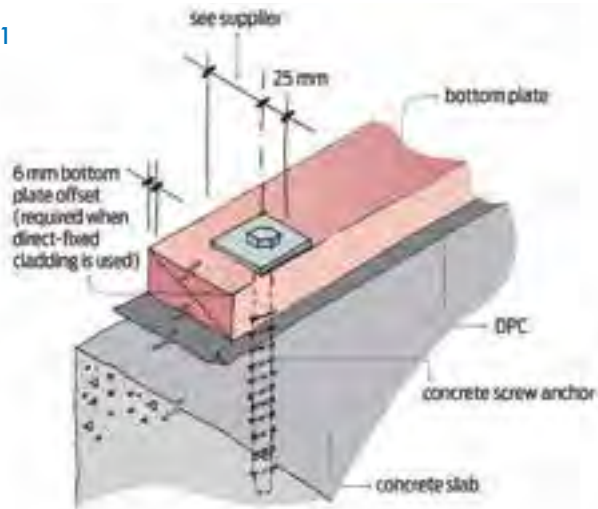
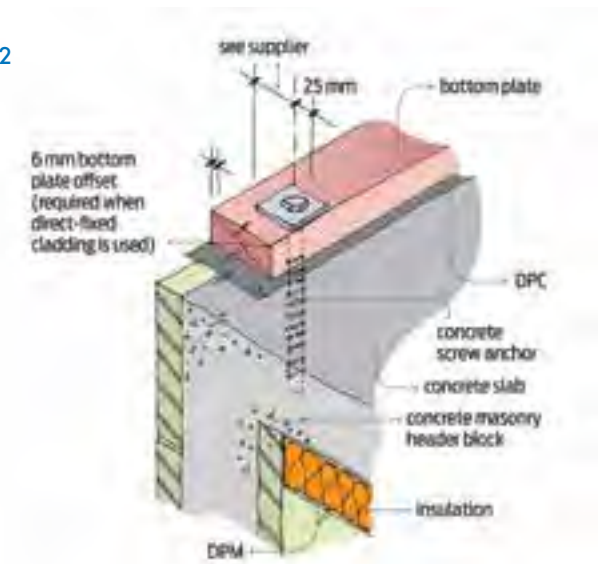


FIGURE 2



Images supplied by BRANZ Build magazine.

EDGE DISTANCES AND SPACINGS

NZS 3604:2011 does not give edge distance dimensions for proprietary anchors as the dimensions depend on the particular product and the slab edge detail, frame width, concrete strength and load.

Anchor spacings for proprietary anchors are given in the Standard as:

- 900mm centres maximum for in-situ concrete floor slabs
- 600mm centres maximum where the slab edges are formed using concrete masonry header blocks
- No more than 150mm from each end of every plate.

DURABILITY DEPENDS ON USE

The protection required for all structural fixings for all zones in closed environments may be mild steel (ie, uncoated and non-galvanised) in accordance with NZS 3604:2011 Table 4.1. However, the Standard states that where fixings are fixed into timber treated with a copper-based preservative, the fixings in closed environments should be at least hot-dipped, galvanised steel. ■



CODEWORDS QUIZ ISSUE 84



4 Proprietary anchors fixing bottom plates can be:

- a) Cast into concrete floor slabs
- b) Inserted into the concrete once it has cured

5 Which of the following is true for screw-type anchors?

- a) They need to be accurately located before installation
- b) They need to be installed before the slab has been cast
- c) They place no expansion stress on the concrete

6 Proprietary anchors used to hold down brace walls with 150 BUs/m must have uplift resistance capacity of:

- a) 9 kN
- b) 12 kN
- c) 15 kN
- d) 20 kN

7 Edge distances for proprietary anchors are:

- a) 50 mm minimum
- b) 65 mm minimum
- c) no dimension is given

Strong PlaceMakers presence at NZCB conference

Sponsorships and prizes provide greater support for attendees

More than 700 builders came together at the NZ Certified Builders (NZCB) annual conference in May to celebrate the association's 20th anniversary and canvass opinion on key issues at a time when the sector remains under pressure from growing demand.

The conference programme included a wide range of technical and business-focused sessions designed to support NZCB member builders in navigating the ever-increasing complexities of the industry.

EDUCATIONAL ACTIVITY

PlaceMakers sponsored a stand with Accent Tools to demonstrate its range of Nilfisk dust extraction vacuum cleaners, which helps builders comply with on-site health and safety regulations.

The stand attracted a large crowd thanks to its innovative golfing activity! Visitors were invited to have a go at getting a golf ball into a hole using

the 'push' function on the vacuum cleaner to guide the ball past obstacles to its destination. The person with the quickest time (3.90 seconds) won a \$250 PlaceMakers gift card and everyone who participated could enter into the main prize draw – two spots on a trip to Port Douglas.

EXPANDING APPRENTICE SUPPORT

For the first time, PlaceMakers also sponsored the NZCB/ITAB Apprentice Challenge, which is designed to recognise emerging building talent from across New Zealand. Now in its seventh year, entries have tripled since the inaugural event with carpentry apprentices from 19 regions competing for the title. This year, PlaceMakers provided the winner's prize pack, valued at \$5,000, as well as smaller prize packs for the 19 regional finalists.

Doug Manu, ex-branch operator from PlaceMakers Whakatane, was thrilled to present the first prize to

PlaceMakers Apprentice Crew member Matt Hatchard.

A third-year apprentice with FoxBuild in Northland, Matt's drive to succeed has been apparent from the beginning. He said he became a carpentry apprentice in order "to better myself, and become trade-qualified at a high standard". At 36 years old, Matt enjoys "learning and applying new skills and constantly pushing myself to discover better ways to achieve the results I want."

This drive was evident throughout the competition, where finalists are put through their paces. Each apprentice must submit a CV, cover letter and work portfolio showcasing their building experience to date before being interviewed by the judging panel of industry experts. Finalists have to give a professional presentation, which includes public speaking to 500 conference delegates, to be named the winner. ■



The top three finalists in the NZCB / ITAB Apprentice Challenge: Robert Piutau (left), Matt Hatchard (middle) and Thomas Ashley (right)



PlaceMakers interactive stand attracted a large crowd

PlaceMakers expands landscape sponsorship



Kae Combridge speaking at this year's Registered Master Landscapers' conference after receiving the 2018 Young Landscaper of the Year award



Bill Holden – Design and Landscape won the PlaceMakers sponsored Landscapes of Distinction Best Construction of the Year Award. Local rock was chosen to deliver a 'sense of place' for the Matakana Garden project, while glass pool fencing was chosen to retain clear visual lines between the house and pool

Luijten Landscaping's Kae Combridge beat a record nine finalists at this year's PlaceMakers-sponsored Young Landscaper of the Year Awards – an impressive feat for someone whose entry into the industry was through sheer luck

Based in Auckland, Kae left university after deciding he didn't want a career that would see him stuck inside all day. After working several different jobs, a chance phone call to Dan Mackay at Ministry of Ground led him to his dream job.

"I did a week's trial and absolutely loved it. I spent another two years working there before moving to Luijten," says Kae, who credits his win to his well-rounded skill set and the support he received from the Luijten team.

"I don't think it was any particular talent that got me across the line. Working with veterans of the industry, I've gained good practical skills and knowledge. I'm also aware of my own limitations and knew my weaknesses in the lead up to the competition; with the support of my mentors here, I was able to turn them into strengths.

"I hadn't been involved with any quoting before and was unable to read site plans properly. One of our directors, Greg Dreyer, personally showed me how he works out quantities and costs from plans."

As part of the final, entrants had to complete a series of written and practical tests and make a three-

minute speech at the Registered Master Landscapers conference, where Kae was named 2018 Young Landscaper of the Year.

Now that he has found his calling, the 25-year-old says he isn't planning to make another career change any time soon.

"My future ambitions are to be a team leader at Luijten and encourage the next generation of young landscapers into this great industry. I'm already working on ways to get more youth involved."

As part of his prize pack, Kae received a Makita drop saw from Placemakers and automatic entry into the finals of the Young Horticulturist of the Year competition.

LANDSCAPES OF DISTINCTION

PlaceMakers further strengthened its relationship with the landscaping industry by sponsoring the Landscapes of Distinction Best Construction of the Year Award, which was won by Bill Holden – Design and Landscape for their impressive work at Matakana Garden.

Bill says the Auckland-based owner's brief was to create an attractive garden

on the pond banks and a paved outdoor patio area next to the pool.

"The inspiration for this garden came mainly from the coastal location and the predominance and reflective quality of the pond," says Bill. "It presented us with the opportunity to visually integrate the pool with the surrounds. Terracing of the sloping area invited the inclusion of large local quarry rocks, softened using low growing coastal species and sub-tropical plants for colour."

He says the main constraints were the instability of the ground for the pool, and the water run-off towards the pond from the large catchment of the site.

"A geotechnical report stipulated that large piles had to be driven into the ground to support the weight of the pool – this work was all organised and overseen by us. Large strip drains had to be installed beside the pool room, along with re-contouring and drains uphill of the pool area to take care of surface run-off during heavy rain."

Any companies wishing to join the Registered Master Landscapers should contact Noel Brown at business@masterlandscapers.org.nz ■

Bella Vista: a summary so far

A report written by Paul Heath QC investigating the Tauranga City Council's role in the Bella Vista Homes subdivision found it did not adequately perform some of its functions

Tauranga City Council (TCC) commissioned Mr Heath to write the report after it came under fire earlier this year for ordering the evacuation of 21 residences built by Bella Vista Homes at The Lakes subdivision in Pyes Pa, including four that had been issued with Code Compliance Certificates (CCCs).

The homes were located on two subdivided sites at Aneta Way and Lakes Boulevard. After receiving a series of reports, the council issued 17 of the dwellings with dangerous buildings and characterised another four as affected.

Under the Building Act 2004, a building can be considered dangerous if, in the ordinary course of events (excluding the occurrence of an earthquake), the building is likely to cause:

- Injury or death (whether by collapse or otherwise) to any persons in it or to persons on other property.
- Damage to other property.

An affected building is defined as one that is adjacent to, adjoining, or nearby a dangerous building. Subsequently, the dangerous building notices for 2, 3 and 4 Aneta Way were lifted.

In April, the council asked Paul Heath QC to investigate its involvement with the 21 properties, with the terms of reference focused on identifying whether or not the council performed its regulatory functions adequately and not why it may have failed to perform them adequately.

In his report, Mr Heath notes that issues with the land were identified in a 2015 report written by Coffey Geotechnics, which was prepared following the completion of earthworks for stages



An aerial shot of the Bella Vista subdivision, taken in August 2016

Image supplied by Tauranga City Council.

3A and 3B of the Lakes subdivision and was presented to the council as part of the resource consent application process.

It noted that the ground was not good ground and had a lower bearing capacity than normal, but was defined as suitable for raft floor slabs. It also included cautions about the use of fill and leaving exposed cuts, and stipulated that some of the properties needed to allow for the collection and disposal of storm water from an adjacent slope.

RESOURCE CONSENT PROCESS QUESTIONED

The Coffey report was later relied on in 2016 as part of an application to vary conditions of the land use consent. An application was also made to amend the consent notice conditions to facilitate the change.

After seeking further information, the council granted both applications on a non-notified basis. In his report, Mr Heath questions whether the council dealt adequately with geotechnical aspects of the applications:

"The point that has concerned me is whether the council ought to have made further inquiries to determine whether the April 2015 Coffey report could be treated as providing a reliable foundation to answer safety stability concerns that might otherwise arise out of the proposed subdivision [...]"

My concerns are based on the type of information that those responsible for processing the applications needed to possess in order to determine whether there were any grounds on which they should be refused."

Mr Heath particularly noted that the Resource Management Act emphasises the importance of inquiries into site-specific geotechnical considerations in circumstances where there is potential for damage from materials, and that the council could have imposed conditions under the Act to ensure the geotechnical aspects of the applications were properly dealt with.

BUILDING INSPECTION AND GEOTECH ISSUES; COUNCIL FOUND WANTING

Mr Heath summarised the findings of a series report written by experienced building advisor Rose McLaughlan, stating that she found six main defects that were common to most of the properties:

- An absence of retaining walls that has led to the erosion of the slopes that sit between the Lakes Boulevard and Aneta Way properties. None of the four properties issued with CCCs are affected by this defect.
- An absence of engineering inspection reports dealing with ground conditions, footings and block walls. These defects apply to all of the Lakes Boulevard properties.
- Failure to provide a building platform to raft slabs, and undermining of footings.
- Failure of the tanking membrane, and inadequate drainage behind walls.
- General construction defects, such as cladding, drainage and structural connections.
- Vehicle access and manoeuvring.

Mr Heath also relied on a number of reports prepared for the council by multinational engineering firm AECOM that concluded a number of the buildings were dangerous under s121 of the Building Act 2004. One of the reports, which focused on the unretained slopes at the rear of Lakes

Boulevard building, states that:

"The geotechnical engineering assessment is primarily required due to the unretained slopes (up to approximately 6m high) at the rear of the Lakes Boulevard buildings. It is considered that in heavy or prolonged rainfall it is likely that instability will occur in the slopes, which could result in destabilisation of 5 and 6 Aneta Way, and the potential collision of debris with the buildings below on Lakes Boulevard. Secondly, ongoing erosion and lack of support to parts of the foundations of 301A and 307A Lakes Boulevard is likely to cause partial collapse of the masonry walls in these buildings."

Mr Heath said that a second report written by AECOM concluded that:

- Bella Vista homes had provided insufficient detail in its resource consent applications to show that the development could be undertaken in accordance with regulatory requirements.
- No contemporary geotechnical report appeared to have been made available to (or requested) by the council, in a manner that conforms with relevant provisions of the Infrastructure Department Code.
- There was "widespread non-compliance" with the stability requirements of clauses B1 and B2 of the Building Code. AECOM stated that "in many cases as-built site works are not in accordance with the approved plans", something that was exacerbated by "insufficient inspection by engineers". These arose out of the need for Bella Vista Homes to undertake earthworks in order to construct the 21 dwellings over two subdivided sites.

In his report, Mr Heath concluded that while the council dealt adequately with the resource consent applications made in respect of the Bella Vista subdivision, it did not perform monitoring and

enforcement functions adequately in relation to geotechnical aspects of the intended construction works.

He also stated that the council did not perform its Building Act inspection functions adequately, in response to both geotechnical and structural considerations, and that it shouldn't have issued the four properties with CCCs.

Mr Heath also noted that there is a need for some form of inquiry or investigation to ascertain why the council failed to adequately perform its regulatory functions, as the terms of reference of his report focused only on identifying whether or not the council performed its regulatory functions adequately and not why.

THE AFTERMATH

Following the release of Mr Heath's report, the council voted to purchase the 21 properties. In a media release dated 6 June, the council announced it will begin negotiations with individual homeowners to achieve full and final settlement.

While there is no time frame set for the negotiations, Chief Executive Garry Poole said that the council will move as quickly as possible to have the matter resolved.

"We know that this has been a difficult situation for homeowners and residents, who have been living in temporary accommodation since March, but we hope that today's decision lifts some weight off their shoulders," said Mr Poole.

The cost of purchasing the 21 properties is unknown and will be part of the negotiations. It is also likely that a number of court actions will follow, which could set legal precedents that will have wider consequences for the building industry.

For a full copy of Paul Heath QC's report, visit: <https://www.tauranga.govt.nz/council/council-news-and-updates/latest-news/artmid/456/articleid/2525> ■

LBP application processing explained



Providing false information and making false declarations breaches LBP rules and will result in disciplinary action

Following the most recently publicised LBP licence cancellations, where two of the LBPs were found to have criminal convictions, *Under Construction* asked LBP registrar Paul Hobbs to further explain how these LBPs had received a licence in the first instance. In the article below, the LBP team explains the rationale around the application process

The Licensed Building Practitioners (LBP) scheme has recently seen its Building Practitioners Board (the Board) hand down sanctions to two LBPs – Jiew Chong (also known as Zi Xiang Lin) and Steven Morrow – with both having their licences cancelled and stand-down periods applied.

ZI XIANG LIN

Hamilton-based Lin, who acted fraudulently by using false information

and making a false declaration when applying for his Brick and Blocklaying licence, was found to have:

- Been convicted of an offence punishable by imprisonment for six months or more that reflects adversely on his fitness to carry out building work.
- Made a false and misleading declaration for the purpose

of becoming licensed.

- Acted in a manner that would bring the LBP scheme into disrepute.

STEVEN MORROW

Morrow, also based in Hamilton, held Carpentry and Foundations licences. He was previously imprisoned for two years after being convicted of offences under the Tax Administration Act, which the Board determined was linked to

Mr Morrow's fitness to be licensed. The board found that he had:

- Been convicted of an offence punishable by imprisonment for six months or more that reflects adversely on his fitness to carry out building work
- Acted in a manner that would bring the LBP scheme into disrepute.

LBP TEAM'S RESPONSE

Jiew Chong provided fraudulent information to the Board when submitting his applications to become an LBP. Steven Morrow was disciplined for prolonged poor behaviour resulting in criminal convictions that reflected adversely on his ability to be an LBP and brought the scheme into disrepute.

We are always looking at ways to review the licensing process and the scheme as a whole, but here we need to balance effort and risk. We don't want to spend all of our energy making the licensing process difficult, but we also don't want to let poor performers into the scheme."

- LBP Registrar Paul Hobbs

LBP Registrar Paul Hobbs says: "When tradespeople make an application to become an LBP, we provide clear guidance on what information is required in the LBP Rules, and this is set out in Rule 7."

"These rules are cited in the Building Act 2004, and where the Board is made aware of any breaches, it will take action – as it has recently against Mr Chong.

"While the Board does not undertake

criminal background checks to determine licensing eligibility, Rule 7 states LBPs must disclose if they've had previous registrations or licences which are subject to or may be subject to disciplinary sanction in the past five years.

"The LBP scheme was set up in 2007 and, based on the volumes in our complaints function, we are consistently seeing a high proportion of LBPs doing the right thing for New Zealanders out there on site, or in offices each day.

"For the minority that fall short of the standards set, the Board will hold disciplinary hearings, and a serious offence or offences will and have resulted in cancelled licences.

"LBPs, as tradespeople, carry out and supervise practical work. Where required, a face-to-face assessment of an applicant's abilities is carried out on a work site by one of our assessors. However, in most cases we rely on a verification of practical abilities provided by referees," says Paul.

In the case of Mr Chong, a valid form of identification was provided at the time of application; however, this was obtained fraudulently.

"If an applicant provides a name that differs from proof of identity, we can pick that up really easily; however, this wasn't the case here. This was flagged to us by our colleagues at Immigration New Zealand as part of enforcement action that was undertaken.

"We are always looking at ways to review the licensing process and the scheme as a whole, but here we need to balance effort and risk. We don't want to spend all of our energy making the licensing process difficult, but we also don't want to let poor performers into the scheme.

ACKNOWLEDGING RESTORATIVE JUSTICE

"In relation to previous criminal history, not every criminal is a recidivist," says Paul. "The reality is that the trades are

an accessible career for those who have previously been through the justice system and restricting a person's future arbitrarily based on their past may not always be the best solution.

We are constantly learning from our complaints function and may make adjustments to the entry standards over time."

- LBP Registrar Paul Hobbs

"A ground for discipline is included in legislation, whereby a sanction could be handed down if a person's criminal history reflects adversely on their ability to be an LBP, as was the case with Mr Morrow. The ground for discipline allows those who have not amended their ways to have their past poor behaviour, which appears to have not been remedied, recognised in a disciplinary sanction.

Paul notes that it's important to remember that occupational licensing schemes have to set a balance between having a sufficient workforce to undertake the work and restricting those who behave poorly.

"We are constantly learning from our complaints function and may make adjustments to the entry standards over time.

"LBPs are made very aware that their role comes with responsibility and accountability. It's ultimately their role to construct or oversee safe, sanitary and compliant buildings for New Zealanders, and to do so with honesty and integrity.

"LBPs who abuse their role by bringing the scheme into disrepute can expect to be held to account by the Building Practitioners Board," says Paul. ■

Contractor or employee?

Anthony Harper

Do you remember the animated TV show *Bob the Builder*? What you may not recall is his young apprentice, Leo, a college student who works for Bob from time to time. While Bob appreciates the extra pair of hands, deciding whether to treat Leo as an employee or contractor gives him a headache

This is an important decision for any business owner, but is particularly relevant for builders given the nature of the construction industry. Determining the employment status of your staff will affect the statutory rights and protections afforded to them under the *Employment Relations Act 2000* (the Act), so it's important you get it right.

For example, employees are entitled to the minimum wage, annual holidays, public holidays, paid sick leave, bereavement leave and protection from unjustifiable actions and unjustifiable dismissal.

WHAT'S THE DIFFERENCE?

In New Zealand, Section 6 of the Act sets out the test for determining whether a worker is considered an employee. It states that an individual is an employee if they are employed to do any work for hire or reward under a 'contract of service' by the employer.

Section 6 also says that, in deciding whether a person is employed under a 'contract of service', the Court or Authority would look at the real nature of the relationship between the parties. This is a broad section, which provides the Court or Authority considerable scope to decide the matter in the event of a dispute. Over time, the courts have developed a number of tests to differentiate between employees and contractors. These tests are not determinative, but they provide a useful guide.



Spot the difference. Determining whether your staff are contractors or employees is an important decision that requires you to do your due diligence

1. THE INTENTION TEST

If Leo entered into an agreement with Bob that expressly stated he was a contractor, this may indicate that the intention of the parties is for Leo to operate as a self-employed worker. While this is important when ascertaining the true nature of the parties' relationship, it is not a conclusive test, as the agreement reflects only what the parties originally intended the work relationship to look like.

However, it does not necessarily reflect the real ongoing nature of the relationship. Occasionally, a working relationship that began as a principal-contractor relationship may morph into an employment relationship. Therefore, even if Leo is expressly named as a contractor in the agreement, if the nature of the relationship changes over time, Leo can become an employee.

2. CONTROL VS INDEPENDENCE TEST

The greater the control Leo has over his work and when he performs the work, the more likely it is that he is a contractor. On the other hand, if Bob largely controls what Leo does for the business and how he does it, he is more likely to be considered an employee.

Factors that may indicate a high level of independence include if Leo chooses:

- The type of work that he does.
- The amount of time he spends working.
- His hours.
- When he goes on holiday.

If, however, Bob had continuous and detailed control over Leo and required Leo to be at work for set hours on set days, apply for leave to go on holiday, and/or was always under the supervision of Bob or another while at work, this would indicate that Leo was an employee.

3. INTEGRATION TEST

If Leo and his work are highly integrated into Bob's building company, it is more likely he would be considered an employee. For example, if the work Leo undertakes is integral to the running

of Bob's building business, this would suggest that Leo is an employee.

Work undertaken by a contractor is generally supplementary to the business, rather than an integral part. Other questions that should be asked as part of the integration test include:

- Does Leo work with his own equipment?
- Is he paid for what he produces rather than by the hour?

If the answer is yes to one or both of those questions, it would be more likely that Leo is a contractor.

4. FUNDAMENTAL/ECONOMIC REALITY TEST

When looking at the parties' relationship as a whole, several factors may indicate the economic reality. For example, if Leo is paid a salary or a wage, and if Bob's building company processes PAYE tax and ACC on Leo's behalf, then this would weigh in favour of Leo being considered an employee.

If, however, Leo pays tax directly to Inland Revenue, is able to engage other workers to perform his work (through sub-contracting or employing his own staff), is entitled to the profits and is responsible for any losses from his work, this would suggest that Leo is a contractor

WHY DOES IT MATTER?

An employer must provide employees with the minimum standards set out in legislation, such as the *Employment Relations Act 2000*, *Minimum Wage Act 1983* and the *Holidays Act 2003*. A contractor, however, is technically a self-employed individual and would not be covered by most employment laws and statutory entitlements.

This could affect Leo in several ways. For example, he would not be paid annual leave or sick leave, unless it was expressly provided for in his services agreement. Further, he would not be able to bring a personal grievance if he was dismissed and he may have to arrange to pay his own taxes.

If Bob's building company wrongly treated Leo as a contractor rather than an employee, this could have adverse financial effects for Bob and his business. For example, they may be liable to pay costs such as unpaid PAYE tax, unpaid minimum wages and holidays and leave entitlements if they incorrectly treated Leo as a contractor.

Ultimately, the key message is to ensure that all parties accurately agree the nature of the working relationship between them from the outset of the relationship. ■

Anthony Harper is a leading New Zealand commercial law firm with offices in Auckland and Christchurch. Anthony Harper is also the exclusive New Zealand member of ALFA International, a global legal network of 150 prominent independent law firms located in 65 countries. This article was compiled by employment law specialists Jennifer Mills, Ethelred Chey and Elizabeth Thomas.

PROVE YOUR KNOWLEDGE!

Tick the correct answers below and record what you've learnt in the record of learning on the back page! Evidence of actual learning rather than just 'participation' is a key requirement of the LBP renewal process.

- | | | |
|---|--|--|
| <p>1) Why is it important to correctly designate the status of your workers?</p> <p>a) It affects their employment rights and can hit you in the pocket if you get it wrong.</p> <p>b) It's a requirement of the LBP scheme.</p> <p>c) You pay higher tax when using contractors.</p> | <p>2) What is NOT a distinction between a contractor and employee?</p> <p>a) Contractors are generally responsible for paying their own tax.</p> <p>b) Employees generally work set hours.</p> <p>c) Contract work is generally integral to the running of the business.</p> | <p>3) What legislation in New Zealand sets out the test to determine whether a worker is a contractor or employee?</p> <p>a) The Employment Relations Act.</p> <p>b) The Minimum Wage Act.</p> <p>c) The Holidays Act.</p> |
|---|--|--|

NB: The questions and answers in this section have been produced by the publisher and do not necessarily reflect views or opinions of the contributing organisation.

Let's get this clear



If the top of a concrete slab-on-ground floor is not high enough above the surrounding ground, there can be problems. The lack of clearance can increase the risk of water getting into a building and shorten the life of building materials. Here's a quick run-down on the clearances required for concrete slabs

Houses with slab-on-ground floors that have inadequate ground clearance can face specific problems:

- Drainage slots for brick veneer wall claddings can get blocked or may even be sitting below ground level. Where this leads to water build-up, the result can be rot in timber framing and mould inside the wall and on interior surfaces.
- Drainage slots at the sill for low or floor-level aluminium joinery can get blocked by paving or soil. This can lead to water damage inside the house.
- Paving or concrete paths around the house that sit at the same level or higher than the floor increase the risk of water entering the house.
- Blocked or restricted drainage/ventilation for nominal 20mm cavities behind lightweight claddings can lead to water damage.
- Water splash from the adjacent ground onto the base of the claddings can result in a dirty finish and shorter material lifespan.



Ensuring that the top of a concrete slab-on-ground floor is high enough is critical to ensuring a home's longevity

Solutions E1/AS1 and E2/AS1 and NZS 3604:2011 Timber-framed buildings.

E1/AS1 says that the floor level should be at least 150mm above the finished level of the ground around the building. It gives two other requirements:

- Where the site is level with or above the road, the floor level must be at least 150mm above the crown of the road (on at least one cross-section through the site).
- Where the site is below the road,

the floor level must be at least 150mm above the lowest point on the site boundary.

(E1/AS1 only applies to sites up to 2,500m² that are not low-lying, flood-prone, beside a watercourse or located where storm water would flow if drainage systems became overloaded. Buildings in these areas require specific design.)

Figures 1 and 2 adapted from Acceptable Solution E2/AS1 show the minimum clearance requirements

set out in that document. E2/AS1 requirements for slab floors and brick veneer cladding (Figure 1) are:

- Floor levels that are:
 - i) 100mm minimum above paving
 - ii) 150mm minimum above unpaved ground.
- Rebate level to floor level of 50mm minimum.
- Rebate level 25mm minimum above paved ground.
- Rebate level 100mm minimum above unpaved ground.

The E2/AS1 requirements for houses with slab floors and other cladding types (Figure 2) are floor levels that are:

- 150mm minimum above paving.
- 225mm minimum above unpaved ground.

When planning slab floors, take account of the intended finished landscaping around the house to avoid the minimum clearances not being met. ■

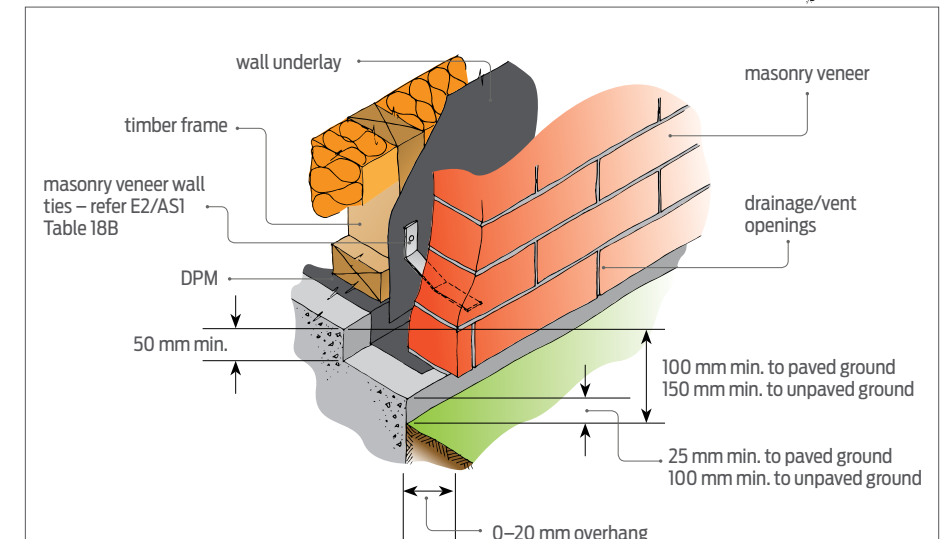
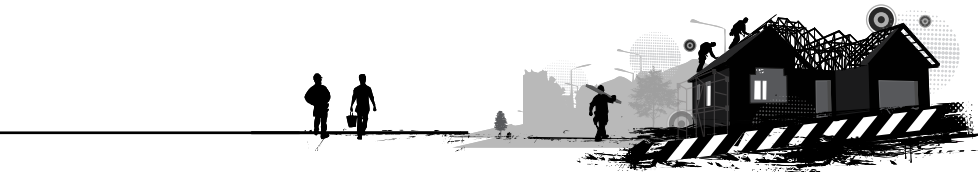


Figure 1: Masonry veneer detail showing clearances to paved and unpaved ground

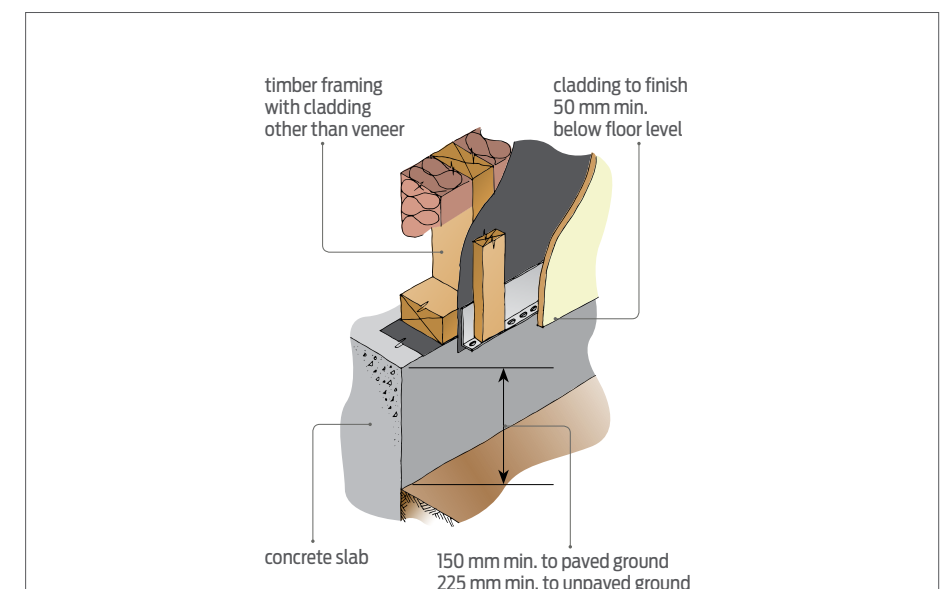


Figure 2: Minimum slab-to-ground clearances for other types of wall cladding

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When planning slab floors, take account of the intended finished landscaping around the house to avoid the minimum clearances not being met

The key ground clearance requirements for slab floors are found in Acceptable

PROVE YOUR KNOWLEDGE!

Tick the correct answers below and record what you've learnt in the record of learning on the back page! Evidence of actual learning rather than just 'participation' is a key requirement of the LBP renewal process.

- | | | |
|--|---|--|
| <p>4) What is NOT a common issue associated with houses with inadequate clearance around concrete slab-on-ground floors?</p> <ul style="list-style-type: none"> a) Internal water damage. b) Shortened material lifespans. c) Increased risk of fire. | <p>5) According to Acceptable Solutions E1/AS1, how high should the floor be above finished ground level?</p> <ul style="list-style-type: none"> a) 100mm. b) 150mm. c) 200mm. | <p>6) What else should you consider when planning slab-on-ground floor?</p> <ul style="list-style-type: none"> a) How much the ground will expand in wet weather. b) How finished landscaping will affect clearance heights. c) Whether you'll need to lower your clearances to improve access for the elderly. |
|--|---|--|

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Keep an eye out for blind spots



Whenever you're working around large pieces of machinery on site, make sure plant operators and ground workers are familiar with potential blind spots

One of the big safety challenges for those who operate or work around construction equipment is maintaining constant awareness of their blind spots

Accidents and incidents involving vehicles on construction sites are the biggest cause of fatalities in the construction industry. It's vital that construction workers know how to work safely where vehicles and other pieces of plant are operating on a busy site; it's easy to accidentally wander close enough to a machine to be struck.

Depending on the type of machinery involved – be it a truck, forklift, crane, excavator, bulldozer, grader or something else – the size of the blind spot varies, with some being quite large. Site Safe has put together some helpful hints to help you stay safe around plant and vehicles.

EXCLUSION ZONES AND SPOTTERS

Exclusion zones and separating workers from mobile plant should be the first option for managing risk. If exclusion is not possible, use spotters to control operations when workers are in the immediate area. A spotter should be in

constant contact with the mobile plant operator.

BLIND SPOTS

Operators of construction equipment or machinery on site can often have severely restricted visibility of ground workers or nearby pedestrians, particularly when they are close to the equipment. To alert workers to the dangers of nearby equipment, warning devices should be fitted, such as a reversing alarm or a revolving light. They can also be fitted with reversing cameras to provide extra visibility for the operators.

Establish an effective system of communication based on two-way acknowledgement between mobile plant operators and ground workers before work starts. Train relevant workers in the procedures before they start work.

The system should stop ground workers from approaching mobile plant until the

Operators of construction equipment or machinery used on site can often have severely restricted visibility of ground workers or nearby pedestrians, particularly when they are close to the equipment

operator has agreed to their request to approach. Similarly, the system should stop operators from moving plant closer than a set distance from ground workers until they have advised the operator that they are aware of the proposed movement.

Mobile plant operators and workers should be familiar with the blind spots of the plant being used. Provide induction programs emphasising the dangers of working in close proximity to mobile plant and provide adequate supervision. Make sure operators and workers wear high-visibility personal protection equipment (PPE). ■



The images below show some of the blind spots for operators of typical construction equipment and machinery. Remember that limited visibility applies to both the front and back of plant.



Dump truck



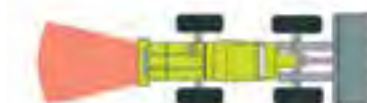
Tractor scraper



Bulldozer



Articulated roller



Articulated loader



Grader

Images supplied by WorkSafe New Zealand. You'll find more information like this in Site Safe's free passport handbook, a pocket-sized guide packed full of health and safety info. Download a copy here: <https://goo.gl/yHxGhn>.

PROVE YOUR KNOWLEDGE!

Tick the correct answers below and record what you've learnt in the record of learning on the back page! Evidence of actual learning rather than just 'participation' is a key requirement of the LBP renewal process.

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| <p>7) What should be your first option for dealing with risks presented by machinery and plant?</p> <p>a) Separating workers from the plant in question.</p> <p>b) Use spotters to communicate to operators what's happening in their blind spots.</p> <p>c) Limit the number of ground workers working in the same area as the machine and plant.</p> | <p>8) What should NOT be a goal of an effective communication system between ground workers and operators?</p> <p>a) To stop ground workers from approaching mobile plant until the operator has agreed to their request.</p> <p>b) To stop operators from moving plant closer to ground workers until they have advised the operator.</p> <p>c) To stop ground workers getting distracted by talking to operators.</p> | <p>9) According to the figures, what is a common blind spot with bulldozers?</p> <p>a) Directly in front where vision is concealed by the blade.</p> <p>b) To the far left of the bulldozer.</p> <p>c) 30m behind the bulldozer.</p> |
|--|---|--|



Stay on track with a dashboard



You wouldn't build a house without checking stages against the plans, so don't run your business without checking against expectations

If your pipeline of work is running out and you're close to hitting the panic button, a dashboard might be just what you need to help you sleep easy at night

Recently, one of my clients went through a prolonged period with no major sales. It was a rather alarming situation. Where others may have panicked or reacted in a knee-jerk fashion, he didn't. Instead, he stuck to his marketing and sales process.

Six months later, he signed up several large jobs worth more than three million dollars – all in the course of a few days!

What was it that gave him such confidence to persist? It was the dashboard he had set up some time earlier.

WHAT'S A DASHBOARD?

A dashboard is a set of numbers and/or ratios that reflect the state of a business at any point in time. It may be you measure the number of hours invoiced each month, then compare that against the number of hours worked, giving an indication of labour efficiency.

When numbers for one period are compared with the numbers from a previous period (eg, month on month), it is possible to identify trends within your business and how you can change these for a positive outcome.

HOW IT HELPED

The dashboard allowed him to monitor the overall health of his business, which showed it was actually tracking well. He had enough work to keep his team busy, so he had no need to panic and, barring an external national or international catastrophe, his business was in good shape.

Rather than being concerned by the lack of sales, he was able to keep his emotions in check by assessing all the activities that lead to sales.

- The channels your enquiries are generated through.
- Operational gross profit as a percentage of income.
- Work in progress (the amount of work sold, but not yet built).
- The rate of change of the above.

2. DELEGATE DAILY TASKS

Keeping careful records is something many business owners neglect. Sometimes, it's just not in their personality profile – they would rather get out there and make things happen.

If this is you, then it may be in your best interests to delegate the keeping of records to an assistant.

3. LOVE THE DETAIL

Dashboarding gives you the ability to make small changes to your business and then assess the effects. It also gives you the ability to test a strategy before committing large amounts of resource to it.

Most actions by themselves may only have a small impact on profitability, but the cumulative effect can be devastating, or exciting. Being able to read these small changes early gives you time to take the necessary actions to prevent bad results or, on the other hand, to

increase investment in those activities that yield good results.

You can't rely solely on your annual accounts to give you useful management information, because they only provide you with a retrospective view of your business. Careful dashboarding gives you objective information on your company's performance in real time.

Another client of mine was sure his business was going backwards, as there was almost no money in the bank! However, his dashboard revealed this was caused by actions (or lack of) several months back and that he was now tracking out of the hole. Once again, good dashboarding prevented knee-jerk decision-making.

4. STEER CLEAR OF EMOTIONS

It's easy to get enthusiastic when things look as though they are going well, and conversely be pessimistic when it looks as though they are not. This can lead to poorly thought-out and hasty interventions. Dashboarding enables you to put your emotions aside and act logically.

Long-term success comes when you keep doing the right things – for a long time. It's when we feel things are going bad that we make poor decisions. ■

Graeme Owen, based in Auckland, is a builders' business coach. Since 2006, he has helped builders throughout New Zealand get off the tools, make decent money, and free up time for family, fishing, and enjoying sports. www.thesuccessfulbuilder.com

PROVE YOUR KNOWLEDGE!

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| <p>10) What is NOT recommended as an indicator to include in your dashboard?</p> <p>a) The number of enquires you receive.</p> <p>b) Work in progress.</p> <p>c) Outgoing costs.</p> | <p>11) What is the main advantage of a dashboard over your annual accounts report?</p> <p>a) A dashboard provides real-time information.</p> <p>b) A dashboard provides a more complete view of your financial position.</p> <p>c) A dashboard provides a clear picture of future earnings.</p> | <p>12) When is it recommended you delegate dashboard responsibilities?</p> <p>a) If you'd rather play to your strengths and work on other areas of the business.</p> <p>b) To give your apprentice a chance to shine.</p> <p>c) When you have no other options to reverse a failing business.</p> |
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Financial health check

BUILT IN INSURANCE



A good accountant who understands the construction industry can properly account for work in progress – something that is vital to the financial health of any building business

Whether you're a fully-fledged business Jedi or fresh-faced padawan, it's always worthwhile checking that you have a good handle on the numbers behind your business. These seven financial indicators will help you better understand your finances

One in two construction companies fall over within three years and 77% will have closed within a decade, according to Stats NZ's 2017 New Zealand Business Demography Statistics.

These alarming figures are slightly above the base rate, which show that 46% of all businesses fail within three years and 73% fail with ten – this will be unsurprising to many who work within the building industry and understand the risks.

From our own experience, financial failure is one of the most common reasons for a building business to fail and we also know that it is a side of their business many builders

struggle to properly manage.

Most claims under a Ten-Year Building Warranty happen because the building contractor has gone bust, leaving their customers in the lurch.

Financial failure is the most common reason a building company ends up in liquidation. That's why it's critically important that builders have a good handle on the key financial indicators of their business. The following seven measures will help you stay on top.

1. CASHFLOW FORECAST

This is a monthly estimate of the cash owed to and by the business. It usually projects up to 12 months into the future.

This will show whether the business has enough money in the bank to pay its bills as they fall due. It also helps to show that while your bank balance may look healthy this week, that money is actually needed to pay bills next week.

2. GROSS MARGIN

This is measured in percentages and shows whether your work is correctly priced. It can also show if you're earning enough from each project. If your gross margin is too low, raising your rates and cutting costs are steps you can take to bring it up. It should be at least 8%, and ideally it will be more.

Gross Margin =

$$\text{Gross Profit (\$)} / \text{Total Sales (\$)} \times 100$$

3. DEBTOR DAYS

This is measured, unsurprisingly, in days and shows how long it takes, on average, for your business to collect the money it is owed by customers.

The smaller the number, the better your company is at invoicing and receiving prompt payments. On the contrary, a high number can put pressure on your business' finances by forcing you to borrow to cover costs.

Ideally for builders, this should be under 30 days. To minimise your debtor days, you could consider offering early-payment incentives or using an invoice factoring provider.

Debtor days (days) = # of outstanding accounts / total sales (\$) x 365 (days)*

*Note that if you're changing the period you want to measure, you'll need to change the number of days accordingly. ie, for February use 28 days, or 29 in a leap year!

4. CREDITOR DAYS

This is basically a reverse of the debtor days calculation and is used to measure how long it takes you to pay your creditors. It shouldn't be more than 60 days. The higher this number, the longer it takes you to pay your bills, potentially indicating some trouble paying debts.

Creditor days (days) = # of unpaid bills / total purchases (\$) x 365 (days)

5. CURRENT RATIO OR WORKING CAPITAL RATIO

This is a percentage figure that measures whether your business has enough liquid assets (stuff that can be turned into cash quickly) to pay its short term liabilities.

A healthy business should have more current assets¹ than current liabilities² and if the result is less than 100%, you should look at how you can reduce your liabilities as quickly as possible.

Current ratio (%) = current assets (\$) / current liabilities (\$) x 100

¹This includes things such as your tools, work vehicles and any materials you have stored on site.

²This includes money you owe suppliers and contractors, and any debts you have.

6. EQUITY RATIO

This is a measure of how much of the business' assets are financed by the owners and shareholders compared to debt (mortgages, loans etc).

The higher the percentage, the less a business is leveraged and the less of it is owned by banks and other lenders through debt.

Ideally, it should be 5% and lenders and insurers both like to see a small number as it helps determine how risky it is for them to work with a business. A business with a heavy

debt load will be unattractive to lenders and can force people into riskier, high-interest finance options.

Equity ratio (%) = owner's equity (\$) / total assets (\$) x 100

7. SOLVENCY RATIO

A solvent business will have more assets than it does liabilities, indicating it can afford to pay back everything it owes. A solvency ratio less than 100% shows the business could be in trouble and may need an injection of capital from the owners.

Solvency ratio (%) = total assets (\$) / total liabilities (\$) x 100

CRUNCHING NUMBERS

A good accountant (particularly one that understands the construction industry and can properly account for work in progress) and accounting software are vital to the financial health of any building business, regardless of size.

They will help you understand the state of your current finances on a regular basis and, just as importantly, help to identify any potential future issues before they become critical. This will give you more control over your business' financial health, reduce stress levels and make your business more attractive to banks, warranty providers and potential buyers. ■

Builtin are New Zealand's trade insurance experts.

For more information visit builtininsurance.co.nz or contact Ben Rickard at ben@builtin.co.nz or 0800 BUILTIN.

PROVE YOUR KNOWLEDGE!

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| <p>13) What is meant by debtor days?</p> <p>a) Debtor days reflect how long it takes customers to pay you.</p> <p>b) Debtor days reflect how long it takes you to pay suppliers.</p> <p>c) Debtor days reflect how long a company has left before liquidation.</p> | <p>14) Why is the gross margin an important financial indicator?</p> <p>a) It shows how much cash you have in your business at any one time.</p> <p>b) It shows whether you can pay your debts on time.</p> <p>c) It shows how well your work is priced and how much your individual projects earn.</p> | <p>15) What is an ideal equity ratio?</p> <p>a) 5%.</p> <p>b) 50%.</p> <p>c) 150%.</p> |
|---|--|---|

NB: The questions and answers in this section have been produced by the publisher and do not necessarily reflect views or opinions of the contributing organisation.



Punt for Prizes winners

Thanks to the generosity of PlaceMakers Punt for Prizes winners, schools and rugby clubs around the country were treated to 'Skills & Drills' sessions with their local Super Rugby teams



Punt for Prizes winner Damon Clifford, who won a training session with the Blues, gifted it to a rugby team from Rangeview Intermediate School in Te Atatu South, West Auckland. Fifteen keen rugby fans were thrilled to take part in a 'skills and drills' session with Blues players. Over the season, Punt for Prizes winners in each region donated their skills session to a local school or rugby club

PROVE YOUR KNOWLEDGE

CODEWORDS
ISSUE 84

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UNDER
CONSTRUCTION

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| 5) | | 10) | | 15) | |

Aug/Sep 2018

For ease of record keeping, use this coupon to collate your answers from within this issue of *Under Construction* and then sign and date it as proof of your own learning.

Signature _____ Date _____



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Pukekohe	237 0020
Silverdale	424 9000

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Waiheke Island	372 0060
Wairau Park	444 5155
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Taupo	376 0220
Te Kuiti	878 8149
Te Rapa	850 0190
Thames	868 0130
Whakatane	306 0320

Whitianga	867 2000
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CENTRAL NORTH ISLAND

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Hawkes Bay	843 5816
New Plymouth	755 9040
Ohakune	385 8414
Palmerston North	353 5777
Wanganui	349 1919

WELLINGTON

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Hornby	344 8950
Kaipoi	327 5860
Riccarton	348 2039

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Cromwell	445 9202
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