

Builder's MATE



FREE TO ALL BUILDERS

May 2004

Issue 5

On top form

Good preparation is the secret when you're building foundations

The first stage of every job is to construct the foundations. It's important to get this part right.

There will probably be some preparation involving excavating a platform or trenches. The amount of excavation should be determined carefully and will need to be confirmed by an engineer or local authority official if it is beyond the scope of section 3 of NZS 3604.

There are always decisions to be made over how much concrete work can be done in one pour.

Sometimes it's wasteful to make formwork for the entire foundation wall, just so you can pour the wall in one go. It may be more sensible to re-use the forms and have several pours. This decision needs to be made on a case-by-case basis.

Is the reinforcing steel simple enough to tie on site? How are you going to suspend the steel while you pour the concrete? Will the footing be best poured first, and the walls afterwards? What sort of bracing will the walls require?

Continued on p2



The footings have been excavated and defined.

Inside: Win a Hitachi cordless sabre saw worth \$600



Industry News

Book your place

There's still time to book your place on BRANZ Certificate of Adjudication course, run by BRANZ Construction Industry Training Enterprise (CITE). The course is aimed at all those who'd like to become an adjudicator under the Construction Contracts Act. The course runs for five days and the first one begins on May 3 in Auckland. Others are planned throughout New Zealand. For times, places and details about what the course involves, contact BRANZ CITE education officer Fiona McCall on 04-238 1291 or email fionamccoll@branz.co.nz.

New solutions

BRANZ is back on the weathertightness trail in a joint seminar series with the Building Industry Authority. Learn about the BIA's new approved document to the NZBC E2 External Moisture then watch as BRANZ shows you how the details can be built. Seminars begin June 28 and will run at locations around the country. More details from Gail King 04-237 1170 or email gailking@branz.co.nz.

HAMMER 'N' NAILS



- 1 The outside form has been built and the reinforcing placed with a line showing the height of the wall. The reinforcing is supported from above this line and also spaced 75 mm up from the bare ground.
- 2 The foundation trench is cleaned out by the junior woodchuck before the pre-pour inspection by the Building Official.
- 3 This wall and footing are going to be poured together. This works well if the pour is done evenly and not too quickly.
- 4 In this example the builder has set the lower side at the finished height of the wall. He has also used framing timber which he will clean off and use later on the job. This practice is controversial because the framing will take on moisture from the concrete.
- 5 This is a nicely done stop-end join in the wall that will be easy to strip.
- 6 This illustrates the weight of concrete and the need to strongly brace formwork. The inner wall has bowed, resulting in a waste of concrete.



From p1

It doesn't take builders long to learn that concrete is a very heavy material and when vibrated it exerts massive pressure on the formwork.

As well as the concrete trying to force the wall formwork apart, there is the added problem caused when the concrete tries to lift the formwork and oozes out from the bottom of the wall.

Most builders will have had a lifted, bowed or blown-

out form in their career and will endlessly regale the junior woodchuck with the story. Hopefully that one disaster would have been enough to ensure it never happens again and – hopefully – the junior woodchuck was listening.

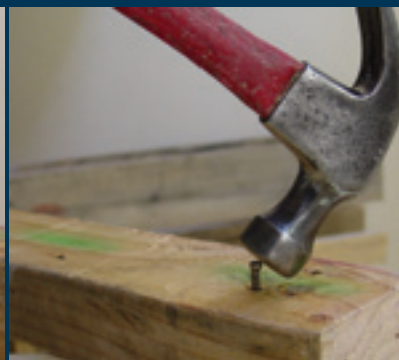
It has been said that you can't build formwork too strong. This is a very wise saying that can't be stressed enough.

Formwork summary

- Build it strongly
- Brace it well
- Anchor it down securely
- Oil the forms, even if you don't want to re-use them
- Never fully nail home fixings that you will be stripping later. See our step-by-step guide, below.

*Got a building problem? Get on the blower to Eddie!
Builders call 0800 80 80 85. Home owners call 0900 5 90 90.
0900 Calls cost \$1.99 per minute + GST.*

Step-by-step: Nailing it



1 Nail the members together leaving the nail head proud of the surface.

2 Use the hammer claw to pull the nail back slightly. This will pull the two timber members hard together.

3 Bend the nail over by knocking downward with the hammer. This will prevent the members from coming apart.

4 Leave the nail bent like this so you can pull it out again when stripping the work.

Weathertightness Sill trays made easy

Next time you frame up a window opening you might want to think about allowing for a packer to accommodate that sill tray you're also thinking of installing.

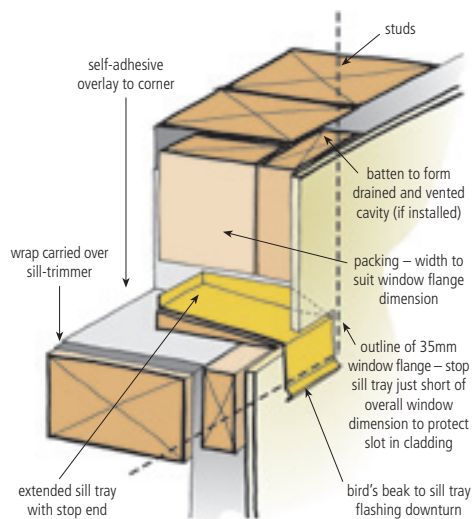


Figure 1: Schematic of bottom corner of window showing termination of the packer.

One of the difficulties when incorporating sill tray flashings to windows has been the need to chase or notch the trimming stud to allow the flashing to extend beyond the trim dimension of the window.

This is done to ensure that any water leaking through the window or intercepted by the jamb flashing is caught by the sill tray.

Installing the packer

Creating the chase on site is reasonably difficult when frames are erected. There is the added complication that when the wrap is returned around the framing and taped – as BRANZ recommends – the additional protection provided by the tape is destroyed when forming the chase.

A much safer and easier to construct option is to make the opening slightly wider than usual. A packer is then installed to create the rough opening to suit the window.

The packer is stopped short of the sill trimmer to allow a sill tray with a formed stop-end to be installed, as shown here in Figures 1 and 2.

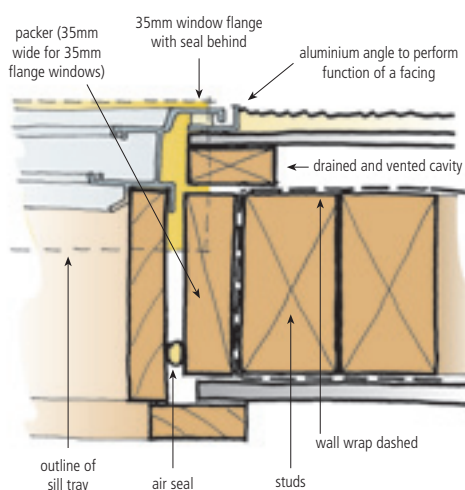


Figure 2: Section through window jamb showing packer.



Dribblings from the old Beezer

Heard the one about two workers on a multi-storey building who had an impromptu race for the smoko shed? One took the stairs and the other slid down the scaffold, like a fireman, on the outside of the building.

The race reached its climax with the stair racer bursting out at ground level just as the pole slider slid at speed down the last pipe standard and impaled himself on a reinforcing steel starter bar. Folklore has it that the impalement scored a bull's eye and the ear-piercing scream was heard all over the city.

The only fortunate part of this tale is that it took place on a hospital block project and help was not far away. But its lesson is that building sites are not playgrounds: danger is all around us and there are hazards to identify and manage. Be careful out there!

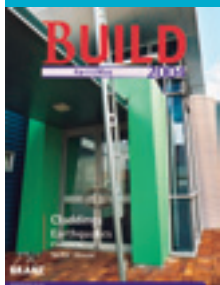
Product information

Look, no joints!

The manufacturers of an award-winning joint-free slab flooring system which uses a clip-together grid of plastic crack inducers, say their system offers substantial savings on construction time costs and ongoing maintenance. The joint-free slabs, launched by Canzac Ltd, feature a crack inducer grid, used to induce a closely spaced network of fine cracks through the entire slab area and so dissipate the effects of shrinkage. The grid is assembled on site with the tubes fitting into four-way junctions that double as bar chairs. For info, phone Lance Canute on 03-343 4254.



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visit www.branz.co.nz to find out more.

Next issue We've got the wrap on building wraps Builder's Mate out July 1. Don't miss it!

win! a Hitachi cordless sabre saw worth \$600!

This Hitachi cordless sabre saw with an 18v powerful motor and cooling fan could be yours!

It comes with variable speed and trigger switch with brake for cutting a wide variety of materials.

To be in with a chance to win, just tell us the correct name for the nail (pictured below) and what it's used for.



Terms and conditions: Entry is open to all New Zealand residents, except employees and immediate families of BRANZ Ltd., BRANZ Inc, BRANZ Pty and Hitachi. The competition will close at 9am on June 11 2004. The prize is not transferable. The judge's decision is final. No correspondence will be entered into. BRANZ may, from time to time, send you information about our products. You can contact us at any time if you do not wish to receive this information.

Write your answer on the back of an envelope (don't forget to tell us where you picked up your copy of Builder's Mate) and post it (you don't need a stamp), before Friday, June 11 2004 to: Builder's Mate (Nail competition) FREEPOST BRANZ, Private Bag 50908, Porirua City

The winner's name will be drawn at 9am on Friday, June 11. Details will be posted on BRANZ website (www.branz.co.nz) and in the next edition of Builder's Mate, due out on July 1 – don't miss it.

Blokes on the job



Brent Pattison building in Judgeford

Favourite tool his Makita sabre saw. It has cut through hundreds of nails but he has never broken a blade.

Favourite tip Always listen to people.

Winners all!

Winner of our issue 3 competition was Graham Dwight of Ohinewai Farm Services in Huntly. Graham wins a Makita plunge router worth over \$500! Congratulations, Graham.

Meanwhile, we snapped our issue 2 winner Fred Margetts of Remuera (right in photo) as he picked up his prize of a Makita circular saw from Peter Earl of the Power Tool Centre in Onehunga, Auckland. Fred



says the skillsaw has been so handy, he's hardly put it down since winning it! Glad Builder's Mate can be of service, Fred! Builder's Mate 4 & 5 competition winners will be announced in our July issue.



Terry O'Brien building in Timaru

Favourite tool the thicknesser for the great changes it can make to timber, turning old bits of Rimu into treasures.

Favourite tip For the young ones: 1) Keep an eye on the old fellas: you'll learn all the best ways of doing things. 2) Don't be worried about doing 'weekenders' because it's where you learn not to make mistakes.

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Ron Simpson building in Queenstown

Ron's workmate Lyall Smillie sent in Ron's picture and says Ron's favourite tool is his sense of humour. Lyall adds: 'Ron's ready smile and calmness under pressure make for a happy site.'

Lyall wins a \$50 BRANZ book voucher for sending us Ron's picture and tip. See our panel below to find out how you can win \$50-worth of BRANZ books!

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Know a bloke on the job? Send his photo, tip and favourite tool to us at BRANZ and you could win a \$50 BRANZ book voucher.