Builder's MATE

FREE TO ALL BUILDERS

BRANZ
BUILDING ON KNOWLEDGE

March 2005
Issue 10

Exposed sites are now almost the norm in many places. But don't be fooled into thinking the sun always shines, the wind never blows and that workers will build just as quick on the side of a hill as they do on the flat.

INDECENT EXPOSURE

Building on an exposed site is a specialised task that'll need careful consideration when you're pricing the job

It is natural that the 'first in, first served' adage applies to our housing stock. After more than 150 years of building, it is not surprising that the better sites have been taken. We are now building on steeper and wilder sites. We often build spectacular homes, some accessed by cable car, on sites that would have been rejected as too exposed a few years ago.

The detailing of these challenging buildings is a specialised task, which must be done well by skilled designers and checked rigorously by the local authority.

The construction is just as important and it is a far more difficult job than building in more sheltered areas. This should be recognised at tender time and the prudent builder will price accordingly.

Not only will exposed sites be subject to more wind, making the work slower, but there is a much higher likelihood of damaging materials during construction.

Continued on p2

Industry News

Virtual building

The Department of Building and Housing and the Consumers' Institute have produced a building website: www.consumerbuild.org.nz to help you with decisions about building, maintaining or renovating. It explains the building consent process and options for managing a building project and has maintenance tips and weathertightness info.

Online advice

The Building and Housing Department has also been busy producing a series of six Practice Advisories, partly in response to the concerns raised by Engineer John Scarry in his report into structural engineering practices. The Advisories aim to help maintain and improve the quality and consistency of design, building consent review, construction and inspection. They cover: bending of steel reinforcement; structural concepts and load paths; cold-worked wire mesh; connection design and detailing; precast floor assemblies; general design and construction practice; and can be downloaded from the department's website: www.building.dbh.govt.nz/e/publish/advisories.html

Inside: WIN a laser plumb bob worth $200!

We're now building on evermore steeper and exposed sites. Special consideration needs to be given to access, structural design and specialised construction techniques for a successful project.

From p1

Temporary bracing

Often there will need to be more temporary bracing which has to stay in place longer before it can be removed. These delays, wastage and breakage must be allowed for: you can't build efficiently if your string lines are bowing in the wind and your workers can hardly stand up. Nor can they work well when they are swathed in clothes more suited for a polar expedition.

If the building site has poor access allow for lack of storage, cranage, smaller deliveries and rubbish removal.

Price the building as normal and then price all the access operations and exposure difficulties separately. Don't be tempted to include these costs with a 'we take the good with the bad' attitude, or you may find you have done the hardest work of your life for no return.

Rolled by the wind

As well as the access and construction difficulties there may be added storage problems. Often storage sheds must be anchored down. In a particularly vicious southerly storm in Wellington a site shed was rolled by the wind across the sub-division and into the harbour. Portaloos on their side are not a good look, and even worse if you are in one at the time.

When pricing the works on exposed sites, it is tempting to think the sun always shines, the wind never blows and your workers will build just as quick on the side of a hill as they do on the flat. In the words of that well known beer ad …'Yeah, right'.

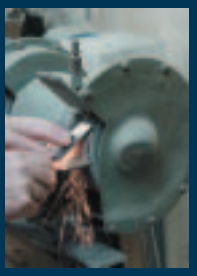
Need a hand? If you've got a building problem that needs fixing, get on the blower to Eddie Bruce at BRANZ advisory helpline!

Builders call **0800 80 80 85** Homeowners call **0900 5 90 90**
(0900 calls cost $1.99 per minute plus GST)

Next issue Parapets and timber framing.
Builder's Mate out May 1, 2005 – don't miss it.

In at the sharp end

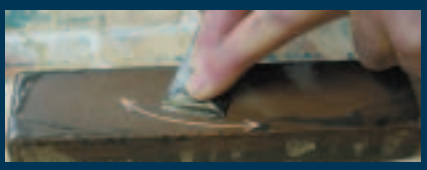
A sharp chisel allows for accurate, quick work. Get the best out of one of the most useful and important tools in your kit.



Grind the front of a very blunt chisel to about 25º. Using a grinding wheel creates a slightly concave effect, which is okay. Don't grind for more than a few seconds at a time, plunging the chisel in cold water after each grind so the temper is not destroyed.

Oil the coarse side of the oilstone and tilt the chisel to 30º. This action will lift the back of it just off the stone slightly. Now move the chisel in a long ellipse stroke, a figure of eight or an "X" pattern, maintaining the same 30º angle throughout the motion while keeping the blade at an angle to the direction the chisel is being moved.

Similarly, oil the fine side of the oilstone and repeat the sharpening procedure you used on the coarse side, this time applying only light pressure so the chisel just skims across the surface.



When the chisel is sharp remove the burr that forms on the back of the blade. To do this, turn the chisel over and, keeping it absolutely flat on the oilstone, move it gently sideways in a back and forth motion.

Finally "strop" the chisel quickly up and down on a leather. Your apron is suitable for this.

To flash or not to flash

Flashings must be an integral part of the design and construction

One of the recurrent reasons behind building failures has been the omission of flashings whether by the designer, the builder or on instructions from an uninformed owner.

As a refresher, Figure1 identifies the areas of a building envelope where BRANZ believes flashings must be an integral part of the design and construction of the cladding.

Flashings are a key component of critical junctions between elements and materials because they deflect water away and provide protection to the junction.

Finishing touches

We should all know about head flashings to windows and doors and the standard barge, hip, apron and ridge flashings that provide the finishing touches to the roof cladding installation.

There are a number of other areas where flashings are equally as important but often omitted. Typical of these are (numbers indicate location on Figure 1):

1. Tops of enclosed balcony walls
2. Reverse slope eaves to wall junction
3. Balcony wall to main building wall junction
4. External corners of weatherboard and profiled steel cladding
5. Internal corners of weatherboard and profiled steel cladding
6. Sill tray flashings to windows and doors
7. Junctions between cladding materials (not detailed on the drawing)
8. Changes in roof pitch
9. Wall penetrations
10. Tops of parapet walls
11. Roof penetrations
12. Movement control or horizontal joints
13. Apron flashings with stop ends
14. Stop-ended curved or raked head flashings
15. Roof barges.

What are typical flashing details for these types of junctions? Figures 2 to 4 cover three particular junctions.

Figure 1. Flashings must be an integral part of the design and construction of the cladding

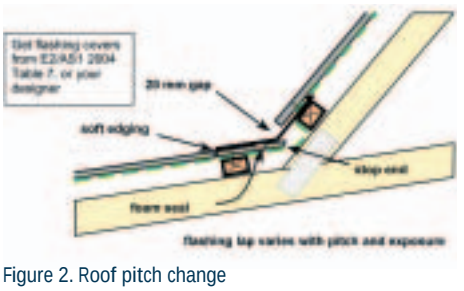


Figure 2. Roof pitch change

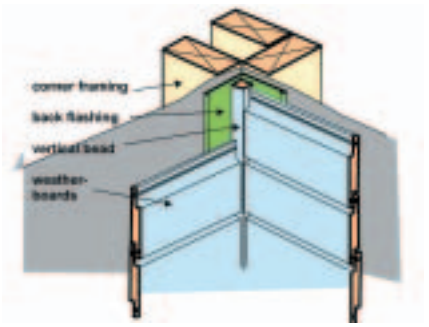


Figure 3. Internal corner weatherboard back flashing

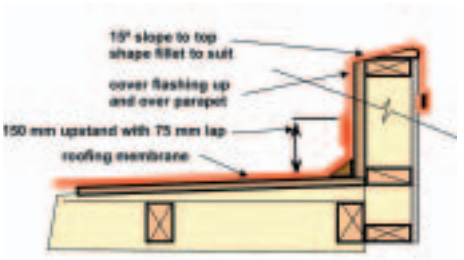


Figure 4. Membrane parapet flashing

Dribblings from the old Geezer

What do you do when you're given an instruction from your contract supervisor that appears to be unsafe?

In a legal precedent in Britain, a subcontractor was found liable for an accident that occurred even though he had warned the main contractor and the client's engineer that the intended work was unsafe.

The subbie was persuaded to do the work, it turned to custard and the main contractor sued successfully because it was found that the subbie had the knowledge but hadn't warned forcefully enough. The ruling stressed that the subbie had a duty of care to warn with 'sufficient rigour' so that the engineer and main contractor would be aware of the consequences of ignoring the advice.

This is a huge lesson to learn. Don't ever do anything you think is unsafe and don't let anyone else do it either, because you could end up being liable for it. It is a scary, bad world out there so please be careful.

Des Molloy, BRANZ technical writer

Product information

In the lead

i-strip's Speedheater System™ is a silent, quick method for removing paint and varnish from wood using infrared. It's ideal for removing lead-based paints because its low operating temperature prevents lead gases escaping so there's less risk to your health or the environment. For more information phone 0800 90 55 23 or visit the website: www.i-strip.co.nz.

win! A laser plumb bob worth $200!

We've got two to give away!

DeWalt's self-leveling laser plumb bob is accurate to ±3 mm at 15 m. It's one-button operation means it's fast and easy to use and the focused laser beam keeps the dot small, even over long distances, for improved accuracy and visibility.

We've got two DeWalt laser plumb bobs to give away FREE to the first two people to correctly identify our mystery tool.

What is the name of this tool and what is it used for?

Just write your answer together with your name and address on the back of an envelope (don't forget to tell us where you picked up your copy of Builder's Mate). Then send it to: Builder's Mate Issue 10, Mystery Tool competition, FREEPOST BRANZ, Private Bag 50908, Porirua City.

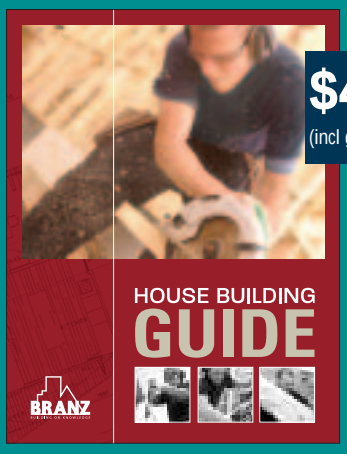
The winner will be the first correct entry drawn from our postbag at 9am on Friday, April 8, 2005. Details will be posted on BRANZ website (www.branz.co.nz) and in the next edition of Builder's Mate, due out on May 1 – don't miss it!

Terms and conditions: Entry is open to all New Zealand residents, except employees and immediate families of BRANZ Ltd, BRANZ Inc and BRANZ Pty, The Toolshed and DeWalt. The competition will close at 9am on Friday April 8 2005. The prize is not transferable for cash. The judge's decision is final. No correspondence will be entered into. BANZ 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.

Winners all!

The winner of our mystery tool competition in BM8A was Alton Taylor. Alton, correctly identified our mystery tool as a twisting tool for fast tying of reo ties and won the mitre saw roller bench. He is pictured, centre, with The Toolshed's Graeme Giles (left) and shop manager Tony Ashdown.

BRANZ House Building Guide



$49.95 (incl gst, plus $8 p&p)

Plus special offer of 10% off for a limited time (offer ends 31 March 2005), pay only $44.95 (plus $8 p&p)

Fully revised and hot off the press, *BRANZ House Building Guide* is full of practical information and guidelines for building timber-framed houses.

Easy to follow diagrams and tables provide all you need to know about house construction – from setting out to lining the interior walls.

AND HURRY!

The first 10 orders will get a BUILD T-shirt – worth $29.95 absolutely free!

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Blokes on the job

Campbell McGregor, building in Churton Park.

Favourite tool: sabre saw, closely followed by the Doddly nail puller.

Kevin Healey, plumbing supplier, Hamilton.

Favourite tool: a Maverix, 6.8 kg rod with a Quantum reel. He's not giving away any tips!

Clayton Crankshaw, building in Albany.

Favourite tool: his Plumb-Rite plumb bob which he enjoys using.

Favourite tip: put the plumb bob in a bucket of water on windy days to stop it blowing around. (Clayton's boss described him as his favourite tool!)

Know a bloke on the job? Send us his details together with a photograph and his favourite tip and you could win $50 worth of BRANZ books.