

builder's mate



WHEN THINGS

DON'T GO ACCORDING TO PLAN...

Carefully following consented drawings and documents should be standard practice for builders, but things don't always go according to plan:

- It may not be possible to build something as detailed.
- Some specified materials may not be available.
- There may be unexpected difficulties, such as soft ground.
- The client may change their mind about something.

How do you handle this?

What may be required is a 'variation' to consented documents. How you go about this depends on whether the variation is minor or major.

Minor variations

With minor variations, building consent authorities have the discretion to follow a relatively informal process. >

WIN!



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A Hitachi
180 mm circular saw
worth **\$179!**

INDUSTRY NEWS

New workplace health and safety law now in force

The new Health and Safety at Work Act 2015 came into force on 4 April 2016, replacing the old Health and Safety in Employment Act 1992.

Under the new law, a 'person conducting a business or undertaking' (PCBU), which could be a company or sometimes an individual, must ensure the health and safety of employees, contractors, subcontractors and other workers. Builders, subcontractors and others must consult and cooperate as far as reasonably practicable to ensure safety.

Workers or officers, including directors, are not the PCBU but will have separate personal liability. Directors can be prosecuted if they don't exercise due diligence to ensure the PCBU complies with its duties and obligations.

A licensing system for removing asbestos is also being introduced this month. Current certificate of competence holders will be able to continue work (in the categories specified on their certificate) and supervise asbestos removal until their certificate expires.

More information at www.business.govt.nz/worksafe.

HAMMER 'N' NAILS



> Continued from previous page

Inspectors can add a note on the file the BCA holds. An amended drawing may be required for the file. A variation that is minor is a change that does not usually affect compliance with the Building Code. Minor variations may include things such as:

- changing a large window to a bifold door (where the opening size is the same and the effect on overall compliance is minimal)
- using insulation that has a higher R-value than specified
- changing the location of kitchen or bathroom cabinetry and plumbing within the kitchen or bathroom (where there is a minimal effect on compliance)
- making a foundation footing wider to cope with a patch of soft ground.

Major variations

A major variation typically involves:

- work that is outside the scope of the original consent, such as additional footprint or increases in floor area, changes in construction method, product substitution or significant changes to the layout, or
- changes to the work that impact on a number of Building Code clauses.

With major variations, the changes must be formally approved by the BCA. You will need to submit a completed application form (Form 2), a deposit fee and the amended plans with changes clearly visible. If acceptable, the BCA will approve the change, and the work can then be carried out.



Cutting out the bottom plate to fit services is not acceptable.

Examples of major variations are:

- changing a bathroom from vinyl floor and preformed acrylic showerbox to a 'wet bathroom' with tiled floor and walls and open shower
- changing the wall cladding
- changing from piles to slab foundation or vice versa
- changing a small study to an ensuite bathroom.

There are likely to be additional BCA costs for staff time.

Product substitutions

Where a different product to the one consented is wanted (or necessary), the applicant must show that the new product will meet Building Code requirements. The BCA should be asked to approve even minor substitutions. With major substitutions, a formal amendment to the building consent may be necessary, again using Form 2. (The Ministry of Business, Innovation and Employment has produced a *Quick guide to product substitution*, which can be downloaded from the website www.building.govt.nz.)

With any variations, there are three things to bear in mind:

- Contact the BCA early to ask whether it is a minor or major variation and what is required.

- Don't start work on the changes until the proper process has been followed.
- Builder, designer and client should all be aware of a change and be happy with it. (Some changes may have no impact on Code compliance and get fast approval from the BCA, but they may have a big impact on the maintenance work a client has to do, for example.)

At the end of the building project, the approved building consent documentation needs to be an accurate reflection of what has actually been built.

To assist, MBIE has available on its website a *Guide to building consent amendments*.

Making changes without going through the right process can have serious consequences. The BCA could fine you up to \$100,000 and require you to make changes or even pull down the unconsented work, depending on the circumstances.

A building consent cannot be issued retrospectively for work that has already been done. In limited circumstances, a BCA can issue a certificate of acceptance, which says that it is satisfied that the work it can inspect complies with the Building Code. This is not the same thing as – and is much inferior to – a Code compliance certificate.



Mouthpiece

One of the most rewarding tasks when building must be the completion of a project and the handing over of that project to hopefully a happy client.

However, things can go pear shaped quite quickly, and all that goodwill can be lost if the new owner's concerns with respect to after-sales service are not attended to promptly. It is also important that your

client is made aware of these things:

- What is acceptable workmanship and what is a defect. For example, concrete slabs and driveways might still be shrinking and small cracks will appear, or there might be an occasional popping of plasterboard fixings.
- The amount of moisture that might still be drying from the building. As a result, the house will need to be well ventilated for some time to remove that moisture. New houses can experience high internal moisture levels from construction materials for up to 2 years after completion.
- Houses have become more airtight, which means

that ventilation of the spaces – opening windows or operating extract systems – is essential to remove moisture generated by normal activities within the house.

- The importance of not blocking the vents in the bottom of brick veneer or those venting the subfloor of a house with a timber-framed ground floor.

It is also a legal requirement at the handover of the project to give the new owner the relevant maintenance requirements and manuals, warranties/guarantees for their new property and details of any relevant insurance policies the builder holds.

BRANZ

Acceptable tolerances in brick veneer wall cladding

What is an acceptable standard of work in brick veneer wall cladding, and what is a defect? Defects can involve non-compliance with the Building Code or standards or can be something that just looks awful.

Here is a summary of what is and is not acceptable, adapted from the MBIE publication *Guide to tolerances, materials and workmanship in new residential construction 2015* and the relevant standards (see below).

APPEARANCE

- Brick walls should be free of visible cracks and chips when viewed from just over 6 m in diffused light.
- From closer up, chipped edges are acceptable provided the total length of chips per brick is no more than 10% of the perimeter length of the brick and:
 - for 95% of the bricks, chips are no longer than 3 mm from edges and 6 mm from corners
 - for the other 5%, the chips are no longer than 6 mm from edges and 9.5 mm from corners.
- There should be no mortar smears on the wall.
- Colour variation in bricks should not exceed the manufacturer's sample range. (Bricks from different pallets should be blended to deal with colour variations.)

ALIGNMENT

- Courses should be vertical to within 10 mm for every 3 m rise in a single storey or 20 mm over total building height.
- Courses should be horizontally level to within 5 mm in any direction up to 10 m or no more than 10 mm in total in any direction over 10 m.

- Courses should be vertically in line to within 3 mm on the visible face and 5 mm on the structural face.

JOINTS

- Bottom course joints should be no more than 20 mm thick.
- Recessed mortar joints should be no more than 6 mm deep unless specified otherwise.
- Joints should be tooled unless specified otherwise.
- Perpend or vertical joints should align vertically to within 10% of brick length.
- Joints should be evenly coloured, clean and free of excess mortar and have a consistent appearance when seen from just over 6 m.
- Joints should have an average thickness of 10 mm \pm 3 mm.
- Repairs should match existing mortar as closely as practicable.

GAPS

- There must be open weepholes at the bottom and ventilation openings along the top of the wall.

Key documents for masonry veneer wall cladding:

- **NZS 4210:2001 Masonry construction: Materials and workmanship:** This covers clay bricks, concrete and natural stone masonry.
- **Standards New Zealand Handbook 4236:2002 Masonry veneer wall cladding:** This gives guidelines and requirements for cladding on a minimum 40 mm cavity.
- **E2/AS1:** Under this Acceptable Solution, materials and workmanship must follow SNZ HB 4236:2002. Mortar, cement, sand and admixtures, and wall ties and their spacings must comply with NZS 4210:2001.

The new 2nd edition of BRANZ Good Practice Guide *Masonry Veneer* is now available. Call 0800 80 80 85 (and press 2) or go to www.branz.co.nz/gpg.

build

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Competition

Here's a tool



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A Hitachi 180 mm circular saw.



worth **\$179!**

This great saw has a cast alloy base, all ball bearing 1050 w motor, a large 68 mm cut at 90°, spindle lock and an easy-grip handle.

The prize is provided courtesy of The ToolShed.

All you need to do to win is tell us the name of the mystery tool (above).

Email your answer to buildersmate@branz.co.nz. Put "April Competition" in the subject line. The message should include your answer, your name, postal address and phone number. One entry per entrant please.

Don't forget to tell us where you picked up your copy of *Builder's Mate*! The winner will be the first correct entry drawn at 9 am on Friday 13 May 2016. Details will be posted on the BRANZ Ltd website (www.branz.co.nz) and in the next edition of *Builder's Mate* due out on 1 June 2016.



The winner of the *Builder's Mate* 76 competition was Simon Cooper of Hamilton. Simon wins a Milwaukee M12 FUEL hammer drill. The mystery tool was left-cut offset aviation snips

Terms and conditions:

Entry is open to all New Zealand residents except employees and immediate families of BRANZ and The ToolShed shops. The competition will close at 9 am on Friday 13 May 2016. The prize is not transferable for cash. The judge's decision is final. No correspondence will be entered into.

+ BUILDERS' APPS

In this series, we'll introduce some great apps and tools for your smartphone. The apps can be found in the iPhone store and/or the Android store. If you know any you'd like to recommend, email us the details at buildersmate@branz.co.nz.



BUILDERTREND

This free cloud-based software lets you update schedules, add photographs, share information with other staff, send updates to subbies and customers and a lot more.



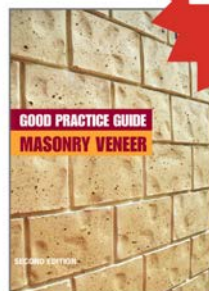
COMPASS

There are numerous compass apps available. Paying a small sum means you don't get lots of ads. Calibrate the app and hold the device flat for accuracy.



Good Practice Guide: Masonry Veneer 2nd edition

25% off



Around 35% of homes in New Zealand have masonry veneer cladding. It has proven weathertightness and is solid, hardwearing and low maintenance.

This fully updated edition describes the installation of masonry veneer cladding using clay brick and concrete brick and block products. It also covers:

- codes and standards
- design requirements
- detailing
- materials
- construction management and workmanship
- applied finishes
- cleaning and maintenance.

Packed with numerous photos and figures, this guide provides good-practice solutions for masonry veneer design and construction along with wall ties, structural

frame, foundations and cavity requirements.

This guide is an essential resource for masons, builders and related trades.

Grab a hardcopy or electronic format from the BRANZ website and any of the other 10 titles available in the series.

Save 25% off RRP

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Standards referred to can be purchased from Standards New Zealand. Tel: 04 498 5991 or www.standards.co.nz.

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