

## New BRANZ design tool

Available now on [www.branz.co.nz](http://www.branz.co.nz) (click on toolbox) is the brand new lintels and beams calculator. The tool is designed to allow the calculation of a range of beam options in timber, steel, glu-lam and LVL for buildings within the scope of NZS 3604. It allows lintels and beams to be sized for a range of spans outside the tables within NZS 3604, as well as the range of lintel or beam materials options. For a limited time calculations will be half price. We also welcome any feedback from users. The engineering basis of the calculations can also be printed off and used to support the use of the beam calculator for consent purposes.

## A good news story

It was pleasing to hear from some BCA's recently that they believed there had been an improvement in the quality of the documentation being submitted for consent.

## Materials origin

Designers need to specify clearly what materials they want the building to be constructed from. Builders must follow that specification when ordering. They also need to be satisfied that what is delivered is exactly what was specified and ordered.

There have been a number of cases reported to Guideline where materials:

- arrive on site with nothing to identify quality or origin. Material may be correct but if not marked it is impossible for the builder to check that it is correct. In one case the marking ink had run out while in others a product (of questionable quality) was substituted
- are nearly similar to that ordered e.g. its treated, but to the wrong treatment type or specification.

## Beware of what you read on the web

Guideline was recently browsing through a New Zealand website whose launch was promoted in the media and which says its aim is to provide information for owners of leaky homes.

However in its E2/AS1 risk matrix coverage it stated that stucco may be able to be used on low risk buildings without a cavity. E2/AS1 was amended in February 2004 to require a cavity behind all stucco claddings. This is one example of web-based information that is incorrect – unfortunately it's not an isolated instance.

Hence the message for designers, builders and owners is – be careful about where you get your web-based information from – the web is a great information tool but it is equally as efficient at delivering poor or, as in the case above, incorrect information.

## Design Tools

The BRANZ helpline is not able to provide support to designers who are using computer based design programmes/tools that have not been developed by BRANZ and/or have not been called up as a compliance path in the DBH documents.

We are also aware of designers using Australian-based span tables and design tools for New Zealand timber construction. Australia has different timber grading rules and this together with the recent changes in timber strengths (amendment 2 to NZS 3604) means that such tables are not considered appropriate for use in New Zealand unless they have been converted to take account of New Zealand timber properties.

## Key issues raised in Guideline in 08

The March issue stressed the importance of maintaining clearances between the ground floor and the outside ground level, and the importance of paying attention to the quality of non-rigid wall underlay installation.

In June it was insulation installation quality. A number of site visits highlighted poor installation practices for wall and floor insulation. The poor installation meant that the completed construction would be lucky to achieve half the design R-value. Common faults included gaps between the insulation and framing, gaps between individual insulation segments, compressed insulation as well as creased and folded material where it had been incorrectly cut to size.

In July the topic was ensuring that the cavity behind brick veneer always provides drainage and ventilation throughout the life of the building. It is essential that the cavity is not filled or blocked. In the same issue the importance of record keeping both for builders and designers was stressed.

In August it was the importance of allowing sufficient drying time which was stressed again with respect to timber floors laid over concrete in the October Issue. In September we warned of the potential dangers to site staff if mould is found on building materials when undertaking repairs or renovations.

## Where do BRANZ publications fit

Unless cited in a compliance document, BRANZ publications have no legal status under the New Zealand Building Code. While a number of BRANZ publications and seminars give information on Code compliance, they are also published to promote 'good' practices within the building industry to meet the BRANZ core purpose which is "to improve people's lives through our research and to inform, educate and motivate those who shape the built environment".

The building designer has a legal obligation to design buildings to meet at least the minimum performance requirements of the Building Code and the role of the BCA to determine that those performance requirements have been met. It is the building designer's choice to set the level of quality, performance or safety, over and above that of the Building Code, which they require for their design. It is also important that what is specified is built and this is the contractual arrangement between the builder and the owner. Because of the Code Compliance and contractual arrangements substitution must not occur without the approval of the designer, owner and as required, the BCA.

## Its Christmas time again

Christmas is almost upon us once again and the time since the last one seems shorter as each year passes. 2008 has seen quite an economic change in the last half of the year. While we know the economy and the building industry is cyclical, picking when the down cycle will begin and planning for it is difficult. What it does mean is that 2009 will be a difficult year for the building industry to maintain workloads and income and to retain experienced staff. It will place greater demands on participants to:

- ensure office procedures are in place to allow timely invoicing and payment – for subcontractors are payments being claimed in accordance with the Construction Contracts Act
- ensure design and construction is run as efficiently as possible to eliminate wastage of time and materials
- avoid taking shortcuts to save money in design and construction
- ensure documentation is accurate and sufficiently detailed to avoid consent delays and to allow accurate pricing. Having good documentation also minimises the potential for conflict where a builders interpretation differs from the designer – as builders look for every possible avenue to maintain their profitability, the quality of the documents becomes more critical
- avoid under-bidding just to keep busy – it may be costlier than not getting the work
- consider pricing at a lower profit margin to maintain workload and retain 'good' staff
- avoid the temptation to substitute cheaper alternatives (any substitution requires approval in advance by the designer and owner and in a number of cases the BCA). It may not work out cheaper once time and compliance costs are taken into account.

2008 has seen the following significant achievements for BRANZ Information Services:

- launch of the eight level sustainable design guides
- publication Bulletin No 500
- development of the BRANZ Level website
- publication of *Weathertight Solutions Volume 6: Membrane roofing*
- launch of seminar Webstreaming.

BRANZ wishes Guideline subscribers **A MERRY CHRISTMAS**, and hopefully a New Year where workloads and income can be maintained – the outlook is not for the most prosperous of New Years.

