

BCA 2008

Energy efficiency for alterations and re-erecting of existing homes

TECHNICAL ADVICE SHEET Starts 1 May 2008

What is changing?

Currently, alterations to an existing Class 1 building and the re-erection of buildings from one lot to another that were built under a Class 1 building approval or building permit before 1 July 2004 are required to comply with Vic 1 of the BCA. This means achieving either a 3 Star house energy rating (HER) or the installation of insulation complying with minimum R values in Vic Table 1.

In Victoria, the current provisions of the main body of the BCA only apply to the construction of new Class 1 buildings. The options are compliance with the 'Deemed to Satisfy' provisions of Part 3.12 or compliance with the verification method V2.6.2.1 and achieving a HER of 5 Stars.

The sustainability provisions of Vic 1 of the Victorian Additions to the BCA will be deleted from the BCA 2008. The BCA will also be amended so that the main body of the BCA will apply to both new and existing Class 1 buildings. This means that from 1 May 2008, alterations to or the re-erection of an existing Class 1 building from one lot to another will need to comply with either Part 3.12 of the main body of the BCA 2008 or achieve the required 5 Star rating under the verification method V2.6.2.1. A rainwater tank for toilet flushing or a solar hot water service will not be required.

What does this mean?

The 'Deemed to Satisfy' provisions of Part 3.12 of the BCA require a building design to achieve minimum standards of building sealing and air movement, thermal insulation of the building fabric and central heating water piping or ductwork and the thermal efficiency of external glazing. Optionally, a building can be designed to meet the 5 Star HER required under the verification method V2.6.2.1.

The Commission is revising Practice Note 55 to provide additional advice to practitioners specifically in relation to the new requirements as they relate to alterations and re-erected buildings and the relevant building surveyor's discretion to allow partial compliance under regulation 608 of the *Building Regulations 2006* (the regulations). The Commission will also conduct a series of statewide training sessions on the new provisions.

Regulation 608 and partial compliance

Regulation 608 requires building work that is an alteration to an existing building to comply with the Regulations. Regulation 608(2) requires compliance with all regulations as they affect an alteration and will include the new energy efficiency requirements of the BCA 2008.

The regulation ensures that in the first instance, building work to alter an existing building is subject to the current minimum building standards expected by the community. Regulation 608 also requires an entire building to comply with the Regulations where an alteration represents more than 50 per cent of the original volume of the building (including any alterations carried out in the previous 3 years).

It is recognised that in some instances, compliance with the current regulations of a proposed alteration or of the entire existing building can be technically difficult to achieve or may provide little benefit. For this reason, the regulation provides discretion to the relevant building surveyor to allow partial compliance.

The circumstances where the relevant building surveyor can accept partial compliance are:

- Any building work to alter an existing building including extensions (except as noted below).
- Any alteration that represents more than 50 per cent of the original volume of the building, including any alterations carried out in the previous 3 years. The discretion to allow partial compliance applies to both the building work associated with the alteration and the requirement to bring the remainder of the building into full compliance. The removal of an existing building from one allotment and re-erecting it on another allotment should be regarded as an alteration that exceeds the 50 per cent rule noted above. (The erection on an allotment of a prefabricated building manufactured in a factory either as a kit home or as a completed building which is sold and relocated to an allotment is regarded as the construction of a new building.)
- There is no discretion to allow partial compliance in respect of an extension to an existing building where the floor area of the extension is greater than 25 per cent of the floor area of the existing building or 1,000 square metres (whichever is the lesser). In the case where the proposed extension does not trigger the 50 per cent rule, the requirement for full compliance only applies to the extension and has no impact on the existing building.

Summary table

Type of work	Compliance required?	Entire building to comply?	RBS discretion
Building alteration work including extensions less than (the lesser of) 1000m ² or 25 per cent of existing floor area	Y	N*	Y
Building alteration work that exceeds the 50 per cent volume rule (including the re-erection of an existing building)	Y	Y	Y [^] (discretion applies to compliance of both the alteration work and the remainder of the building)
Building alteration work that is an extension of floor area greater than the lesser of 25 per cent of floor area of the existing building or 1,000 m ²	Y	N*	N

* Subject to the alteration not triggering the 50 per cent rule

[^] If the alteration includes an extension that exceeds the size described in the row below, the discretion only applies to the requirement to bring the remainder of the building into compliance.

As the intent of the regulation is to ensure building work to alter a building meets the current regulations as far as is practicable, the discretion of the relevant building surveyor should only be utilised where the regulation is overly onerous, technically impractical or does not provide a level of benefit commensurate with the cost of compliance.

Transitional

Section 10 of the *Building Act 1993* relates to the applicability of new or amended building regulations to building work. Sub-section 10(2) of the Act provides that:

A building regulation, or an amendment to a building regulation, does not apply to the carrying out of building work if the relevant building surveyor is satisfied, and certifies in writing, that substantial progress was made on the design of the building before the building regulation or amendment commenced.

Minister's Guideline MG/13 provides advice on the operation of section 10. For the purposes of paragraph 3 of the Guideline, a design for an alteration (including an extension), should be treated as 'one off' design. A building being removed from one lot and re-erected on another should be treated as 'stock' or 'standard' design.

Assessment of designs using software programs giving a house energy rating

In Victoria, the most common method of achieving compliance of a new Class 1 building has been through the use of approved software showing the design achieves the required 5 Star HER.

HER software can only be used to assess an entire building and are not suitable for assessing an extension or that part of a building subject to an alteration. If the relevant building surveyor is

considering allowing partial compliance then it would be difficult to judge whether a level of compliance (partial compliance) has been achieved where a HER is provided as part of an application for a permit (unless the whole building achieves a HER of 5 Stars).

It may be necessary to have two HER's submitted. One of the existing building design, and a second of the total building design incorporating the proposed alteration. The second HER must give a higher Star rating than the first. If the two ratings were the same, (except where they both achieve a 5 Star HER) then the only conclusion would be that compliance, and even partial compliance has not been achieved.

Given that the amendment to BCA 2008 is intended to increase the stringency for the thermal performance of alteration work to existing buildings, then an HER of greater than 3 Stars (the existing requirement under Vic1) should be achieved in the case where the building was constructed prior to 1 July 2004.

Given the difficulties in using software, it is recommended that alterations that will be subject to the requirements of BCA 2008 should be assessed against the Deemed to Satisfy provisions of Part 3.12.

Further advice and training

The Building Commission will be running a series of workshops across the State during March and April. Registration for the workshops will be advertised on the Commission's website.

Practice Note 55, Residential Sustainability Measures, is also being updated to incorporate more detailed advice on methods of achieving compliance, guidance on the application of regulation 608 and approving partial compliance, and a specific section related to re-erected houses.

For further information or comments, please write, fax or email

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