Installing wall insulation
Specify enough insulation to just fill the framing width or depth. Don't specify or use insulation in walls that is thicker than the framing depth because this:

- will compress the insulation and give an installed R-value lower than that specified by the manufacturer – insulation that is not thick enough may sag or drop, again reducing performance
- may push a flexible wall underlay into any drainage cavity provided, possibly bridging the cavity – flexible wall underlay must be tautly installed and have additional battens, wire mesh or plastic tape where the stud spacing is greater than 450 mm to restrain the insulation
- may make the linings more difficult to fix in place, particularly the sheet centres, as most wallboard manufacturers specify adhesive fixing only. If screw fixings are used at centres of sheets to pull sheets to the stud and bed the glue, the screws may rupture the paper and, if left, may result in screw popping as the adhesive dries (and shrinks).

Mat or segment insulation should be neatly fitted into the framing with no gaps between it and the framing or folds in the material. Cut bulk insulation (fibreglass, polyester or wool) about 8–10 mm wider/longer than the space it will be fitted into to give a firm fit without creasing and gaps. Gaps between segments and to framing and creases in the insulation seriously lower the wall R-value.

Cavities are for drainage and drying
The function of all cavities behind claddings is to allow any moisture that might get in to drain and to allow air to circulate to dry out any moisture that remains. It is essential that the cavity space of 40 mm minimum for brick veneer and the nominal 20 mm for other cladding types is unobstructed. Anything located within the cavity will reduce its ability to provide sufficient ventilation and drainage. The cavity must not be used for running pipes and cables. A service penetration such as a waste pipe, heat pump ducting or electric cable can cross a cavity. E2/AS1 outlines the details for finishing the penetration through the wall underlay to ensure that drainage paths are maintained around the penetration through the wall underlay. To meet the detail requirements, the penetration must be formed before the cladding is erected/installed.

It also means that:

- a flexible wall underlay must be tautly installed so that it is not pushed out into or across the cavity when the wall insulation and internal linings are fixed in place – additional battens, wire mesh or plastic tape where the stud spacing is greater than 450 mm to are required to restrain the underlay
- mortar droppings that occur when brick veneer is laid must be removed from the cavity base and from the top of veneer ties
- mortar that spews out of the back of the joint must be removed so that contact with the wall underlay is prevented
- penetrations should have a fall towards the outside to drain any moisture present onto the back face of the cladding and not back onto the wall underlay.

Changes to Schedule 1 of the Building Act
A number of recent changes to Schedule 1 of the Building Act, covering work that can be done without the need for a building consent, came into force on 23 December 2010. All exempt work must comply with the requirements of the Building Code and other relevant legislation such as the Resource Management Act. Undertaking building work that is not exempt without a building consent is an offence under section 40 of the Building Act. A person who commits such an offence may be liable to a fine not exceeding $100,000. Full details of exempt work are given on the DBH website www.dbh.govt.nz/bc-no-consent.

Some of the key changes to existing sections:

- An increase in the height of decks from which it is not possible for a person to fall more than 1.5 metres even if it collapses (increased from 1 metre).
- Allowing the replacement or alteration of linings or finishes of any internal wall, ceiling or floor of a dwelling.
- Allowing the construction or alteration of any wall (except a retaining wall or an internal wall), fence (except a fence as defined in section 2 of the Fencing of Swimming Pools Act 1987) or hoarding of a height not exceeding 2.5 metres (2.0 metres originally) above the supporting ground.
- The modification of the requirements for water storage tanks relating to capacity and height above ground.

There are also amendments and/or additions to the sections covering the construction, alteration or removal of any:

- fabric, glass or metal awning on any building up to 50 m^2 (previously 15 m^2)
- porch or veranda on any building not more than 20 m^2 (previously 15 m^2)
- tent or marquee for public use of not more than 1 month that has a floor area not exceeding 100 m^2 (previously 50 m^2)
- stall, booth, compartment or similar structure that does not exceed 100 m^2 in floor area and is or has been for use at a fair, exhibition or market for not more than 1 month
- carport that does not exceed 20 m^2 in size and is on the ground level.

New sections that have been included allow:

- the installation of thermal insulation in an existing building other than in an external wall or an internal wall that is a fire separation wall
- a penetration up to 300 mm diameter to be made to enable the passage of pipes, cables, ducts, hoses and the like through any existing building and any associated building work, such as weatherproofing, fireproofing or sealing the penetration
- the demolition of all or part of a damaged building that is detached (stand-alone) and no more than 3 storeys high
- the repair or replacement of all or part of a damaged outbuilding, provided the repair or replacement is made within the area the original outbuilding occupied.

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New documents
Two new key documents are being issued over the next few months. The two main ones are the revised NZS 3604 and the amendments to E2/AS1 (submissions on the revision to E2/AS1 must be submitted to the DBH by February 4).

Some of the proposed key changes in the E2/AS1 draft for comment include:

- the inclusion of brick veneer cladding details (veneer details are to be removed from the revised NZS 3604)
- the removal of flexible (wall underlay) air barriers
- changes in the requirements for a cavity – for example, all monolithic claddings and all claddings in the new NZS 3604 extra high wind zone will require a cavity
- increased falls for membrane roofs and roof decks.

NZS 3604:2011 and timber treatment seminar
Dates will be finalised soon for this important seminar. Keep an eye on our website for details.

Distance learning CPD
The following courses from the Open Polytechnic and BRANZ are open for enrolment now:

- Building Controls
- Weathertight Design
- Plumbing Inspection
- Domestic Sprinkler Design

Full details are available at www.openpolytechnic.ac.nz/professional-development/continuing-professional-development-for-the-building-industry.