BRANZ
BUILDING ON KNOWLEDGE

GUIDELINE

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INSURE AGAINST THIS HOUSE OF CARDS

The other day a colleague, reflecting on the issues surrounding leaky buildings, made an interesting observation.

The closer a building is designed to the minimum requirements, be they building code or other regulatory requirements – structural, thermal glazing, etc – the greater the risks, especially if building conditions during construction mean compromises are made. This could mean that the building will not perform as designed, and may not even comply with the building code.

A sobering thought, and one that would be especially relevant in situations where the building's performance causes problems sufficient enough for the occupier to complain.

A complaint can lead to site inspections that can literally mean the building is taken apart again. A great deal of technical rigour can be brought to bear – far more that was ever in evidence when the building was under construction.

This rigour, applied by legal imperatives, lays bare any deficiencies. For example: a leaky window leads to a floor rotting to such an extent that someone's foot goes through it. This leads to a wider examination that shows deficiencies in cladding detailing that have allowed water to get into the wall cavity.

Opening the wall shows that insulation levels are inadequate because of substituted products. Further leaks discovered in the walls at higher levels lead to the investigation of membrane roofing detailing which has been compromised by floor levels and parapet caps penetrated by fastenings.

Finally, it's discovered that height plane requirements have not been met because excavation levels were not achieved and increased joist sizes are now required at the second- and third-story level because those originally specified are undersized … and so it goes on.

Aside from the maintenance issues, it's clear that if design and construction practices are purposely aimed at ensuring that only the minimum requirements are met, then the risk of cumulative faults developing are high, thus creating a sort of 'house of cards' approach to design.

Most design professionals and trades people have insurance for the unexpected. One of the cheapest forms of PI insurance available (and, incidentally, one that will provide cover for weathertightness-related issues) is the attitude of mind that produces a design and executes construction practices that are not pared down to minimum requirements.

This approach will accommodate a small leak, should one eventuate, allow for sufficiently robust construction so that repair does not mean extensive demolition, and – best of all – will not involve the scrutiny, cost and dissection of an investigation designed to apportion blame, and for which there is now no insurance cover available.

GLASS SPLASH-BACKS

The popular and practical idea of specifying glass as a splash-back cladding behind sinks, cooktops and benches carries the risk of shattering or fire hazard if it is fitted too close to gas hobs. You can get details of the types of glass, how it should be fixed and how far it should be positioned from heat sources from the major glass suppliers. Any combustible surfaces on the wall within the clearance zone defined by NZS 5261: 2003 'Gas Installation' should not be exposed to temperatures greater than 65 degrees celsius above ambient. See section 2.7 of the Standard.

FOAM-FILLED CAVITIES

Occasionally we hear of insulation retrofits in brick veneer houses being undertaken by introducing foam to the cavity. This is often done on a casual basis and therefore not bought to the attention of the Territorial Authority. The problem with this practice is that water entering the cavity will not drain away through the cavity, but may enter the house via the foam across the cavity. NZS 4210 requires a drainage cavity. It should not be filled with foam.

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