

New timber treatment requirements

Various activities are underway in the building industry in response to weathertightness problems and some steps have now been taken. One is the recent revision of the *Acceptable Solution for B2 Durability*. A key issue in this revision has been setting minimum levels of timber treatment for selected parts of a building through reference to the (also) revised standard NZS 3602. This feature discusses some important consequences of these revisions.

The newly released NZS 3602: 2003 *Timber and wood-based products for use in building* contains changes to the timber treatment levels for framing timber (see more about this standard on pages 52–53). The main changes are to external wall framing, skillion and low-slope roofs, and balconies and decks. In some cases supporting

members for decks and balconies, such as lintels, beams and trimming studs, will also require more treatment. Other areas to be affected by the new timber treatment requirements are floor joists at ground level and floor joists not protected by a boundary joist.

The details shown here have been developed to explain common situations where treated timber needs to be used.

As Simon Tonkin suggests (on page 38) a builder may well order a house-lot of framing with the highest level of treatment required in the building, because it's simpler. The colour coding will help identify on site what has been used where (see page 52) but there's stress grading to consider as well (see page 48), so it's a complicated scene. Let's look at some examples.

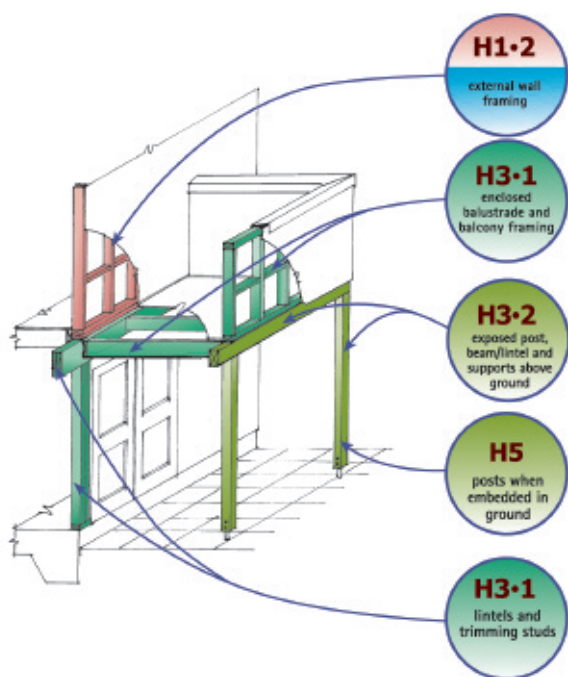


Figure 1: Enclosed balcony supported by posts and beams.

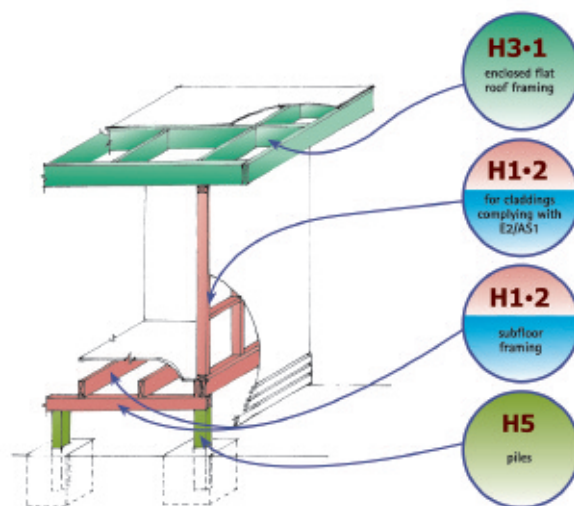


Figure 2: Low-slope roof framing for roofs 1.5°–10°.

Risky enclosed balconies

The problem with enclosed balconies is that they frequently leak and any leaks can travel into structural framing and may go unnoticed until structural failure occurs. The timber framing for deck joists and balustrades must be treated to H3.1. In addition, framing below decks or balconies must be treated to at least H1.2. Where a deck or balcony is supported by high-load critical elements enclosed by linings or claddings in an interior or exterior wall (such as beams or lintels over large openings), these will require treatment to a higher level than the rest of the wall. See Figure 1.

Risky low-slope roofs

Enclosed low-slope roof framing must have H3.1 treatment because if a leak develops there is no ventilation to aid drying. Rot could then develop, unobserved, with serious consequences. See Figure 2.

Risky joists

Intermediate floor joists that have their end grain exposed to the back

of the cladding (i.e. not protected by a boundary joist) are at risk if moisture penetrates the cladding. These joists must be treated to the same hazard level as the supporting wall framing, which is the minimum H1.2. See Figure 3.

As with all Acceptable Solutions these are minimum requirements and there may be occasions where it would be wise to opt for a higher level of treatment. For example, if the building is going to take many months to complete, a higher level of treatment or more durable timber would be sensible for the internal walls and roof framing.

The drawings given in Figures 1, 2, and 3 have been taken from material prepared by the Building Industry Authority and Standards New Zealand for their 'Timber treatment' seminar series held in May. ><

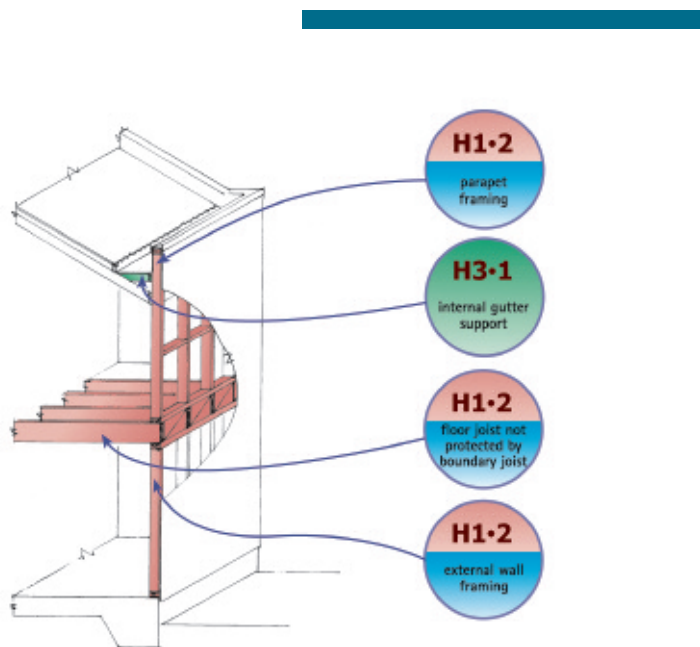


Figure 3: Joist, parapet and exterior wall.