DRAINAGE FROM THE BACK OF THE CLADDING

Weathertightness failure of a building's exterior cladding results in water penetrating the cladding and entering the exterior wall assembly. This water needs a path to get out again.

By Greg Burn, Structure Limited, Auckland (adapted from BRANZ *Building basics: Weathertightness*)

Both direct-fixed and drained and vented cavity cladding assemblies must be designed and built to provide drainage paths that allow leakage water to drain down the back of the cladding and out to the exterior at the earliest opportunity.

Drainage from within the assembly to the exterior is achieved by incorporating specifically designed drainage gaps at certain locations in the building exterior, such as at a window head or sill, at an inter-storey horizontal cladding junction or at the bottom of the cladding.

Deflect and drain

Where gaps for drainage are provided in the cladding, a deflection device must be used so water draining down or impacting upon the cladding surface does not enter through the gap. In these situations, a building component may need to do more than one job, for example, a window head flashing in a drained and vented cavity cladding protects the junction between the window and the cladding from water penetration by acting as a deflection device, but also allows water to drain out over it from within the cavity, as a drainage device.

These gaps in the cladding also allow air to enter the wall assembly where it circulates and dries out any moisture that has not drained, but has been absorbed by components of the assembly.

Some claddings allow more potential for drainage and drying because of the profile of the cladding – examples include timber weatherboards and profiled metal.

Gaps are important

Historically it has been common for every gap in the exterior of a building to be covered or sealed, but modern design and construction incorporates protected gaps to facilitate drainage and air circulation as important components of the overall weathertight performance of the building.

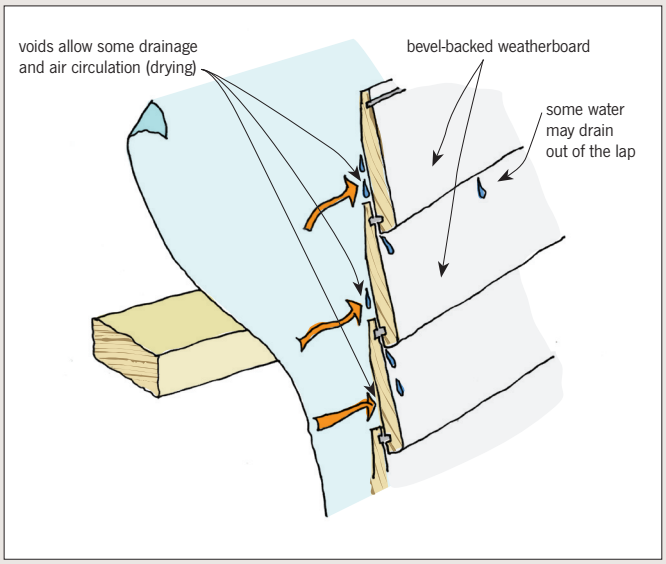

Figure 1: Profiled cladding – direct-fixed.

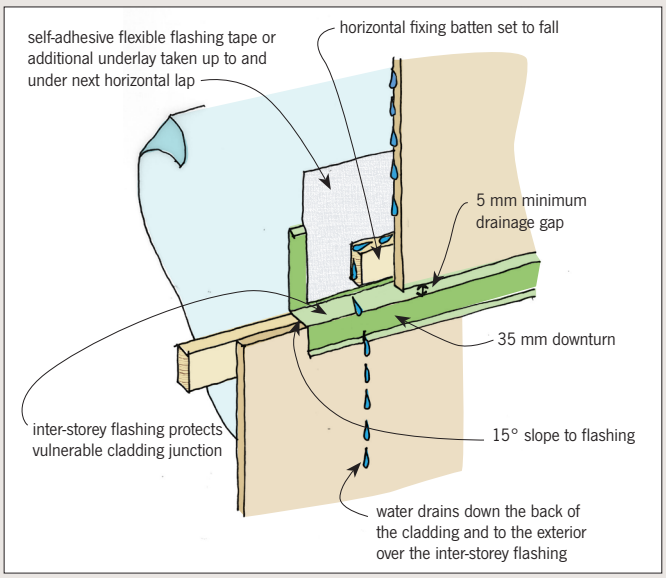

Figure 2: Inter-storey drainage is required for cavities over two storeys high.