

Purpose

The purpose of this practice note is to provide guidance for the compliance with the building code clause E3.3.2

The building code clause E3 requires that buildings are constructed to protect household units and other property from damage caused by free water from another household unit in the same building

Background

With the ever-increasing number of multi-units being constructed in Auckland it is important that protection of household units and other property from accidental overflow is considered and adequate solutions are implemented.

The protection required here will apply to other properties or household units separated both vertically one below the other and horizontally one next to the other.

Building Code clause E3.3.2 Internal Moisture requires protection of other property from accidental damage caused by free water overflow into adjoining household units.

E3.3.2 Freewater from accidental overflow from *sanitary fixtures* or *sanitary appliances* must be disposed of in a way that avoids loss of *amenity* or damage to *household units* or *other property*.

The acceptable solution E3/AS1 clause 2.01 requires protection of other units by containment and overflow but only includes sanitary fixtures which are defined as fixtures permanently attached as part of the building used for sanitation.

2.0 Overflow

2.0.1 If a *sanitary fixture* is located where accidental overflow could damage an adjoining *household unit*, containment and a *floor waste* shall be provided.

Definition of accidental overflow

Determination 2006/050 states that the term accidental overflow when applied to the kitchen sink means an overflow caused by a plug hole blockage rather than a blockage further downstream such as might be caused by lack of maintenance.

In other words, accidental overflow is the result of a blockage to the outlet of the sanitary fixture and does not include blockage of the pipe discharge system or failure of the flexible connections, used faucets and appliances.

Acceptable Solution

E3/AS1 requires containment and the installation of a floor waste in bathrooms, kitchen and laundries to G13/AS1 paragraph 3.4.3 c although a graded floor is not essential in this case.

Accidental overflow in a bathrooms can be addressed by installing a charged floor waste connected to the foul water system or alternatively, installing an uncharged and un-trapped floor waste discharging directly to the outside with appropriate vermin proofing installed to the outlet and positioned so not to cause a nuisance, e.g. over a front doorway.

Containment may be achieved by using impervious floor coverings which are continuous and coved, or the floor/ wall junctions are fully sealed. To provide adequate containment to a bathroom, the floor will either need to be sloping towards a floor waste or where the finished floor is flat, a raised threshold will need to be provided across the full bathroom door width.

Notwithstanding it would be difficult to provide full containment to a kitchen that is part of an open plan therefore, it adds more weight to providing a solution at the source, i.e, the sink bowl itself through an internal fixture overflow.

Issues arise onsite when floor wastes are missed in the design or deliberately not installed.

Alternative Solution

As an alternative solution, it is acceptable to prevent accidental overflow from the kitchen sink or the laundry tub, by installing an integral overflow with a flow restrictor to the faucet on the sink provided the fixture overflow rate is greater than the fixture inlet rate. Where this system has been used, floor wastes can be omitted in kitchens and laundry rooms.

Accidental overflow from sanitary appliances such as a dish washer or the washing machine can be mitigated where appliances have an automatic shut off mechanism built in which will prevent the appliance from overflowing.