BUILDING PERFORMANCE

Building Code update 2022 – Proposals for consultation

AS VM

PLUMBING AND DRAINAGE

E1 BUILDING CODE Surface water

G12 BUILDING CODE Water supplies

G13 BUILDING CODE Foul water

Reasons for change:

Lead in plumbing products – Drinking water needs to be healthy, safe and fit for human consumption. Where exposure to lead in drinking water can be reduced, it should be reduced.

Water temperatures – Maximum hot water delivery temperatures in New Zealand are higher than in other countries leading to an increased risk of tap water scalds. Children and the elderly are especially at risk for tap water scalds. 65% of severe tap water scalds have been found to occur in infants and young children under 4 years old.

Protection of potable water – Backflow occurs when the flow of water within a pipe is reversed, which can draw contaminants into a potable water supply. It can create a health risk to occupants in buildings and to entire public water supply systems. Stakeholders in the plumbing industry have identified issues with current backflow prevention measures.

AS/NZS 3500 Plumbing and drainage standards
Water system supply components
Plumbing and drainage system material standards
Resolving conflicts and editorial changes

There are minor gaps in the existing compliance pathways raised by the plumbing industry. Technical standards have been updated but have yet to be cited. Regular maintenance is important to keep documents up to date.

Proposed solutions:

- Reduce the allowable lead content for some plumbing products in contact with drinking water by 2025. This includes products made from copper alloy such as pipe fittings, valves, taps, mixers, water heaters and water meters. Existing products that were compliant at the time of installation do not need replacing.

- Reduce the maximum allowable temperature of hot water at taps used for personal hygiene from 55°C to 50°C. This applies to new plumbing fixtures used for personal hygiene, such as hand basins, baths and showers.
- Reduce the temperature in early childhood centres to align with Ministry of Education requirements.
- Provide more ways for plumbers to limit the temperature of hot water.

- Update provisions for when backflow prevention is required, what type of backflow prevention devices are suitable and how these devices should be installed and tested.
- Align the definition of potable water with changes made under the Water Services Act 2021.

- Cite the latest versions of the plumbing and drainage design and installation standards (AS/NZS 3500: 2021).
- Provide minor updates to the requirements for water supply systems in buildings.
- Cite approximately 50 newer versions of plumbing and drainage material standards.

Expected impacts:

Contribute to maintaining public health.

Product manufacturers and suppliers will have to adjust through a transition period.

Reduce the number of tap water scalds.

Negligible cost impacts.

Negligible impacts to the hot water provided for amenity.

Increase protection of potable water supplies.

Support Taumata Arowai to protect water supplies.

Modernise compliance pathways for plumbing.

Increase confidence in plumbing products.

Increase efficiency in consenting for plumbing designs.

STRUCTURAL STABILITY

B1 BUILDING CODE Structure

Reasons for change:

Hollow-core floors – New structural engineering research findings in New Zealand highlighted challenges in the current design methods for hollow-core floors in earthquakes. Details in the standard used for design are no longer considered good structural engineering practice. Demand for these types of floors has decreased following the 2016 Kaikōura earthquake.

Proposed solutions:

- Change the compliance pathway for hollow-core floors to make new buildings safer in the event of earthquakes. Remove existing design details that research has shown are no longer suitable.

Expected impacts:

Increase safety for new buildings in an earthquake.

Increase costs for compliance.

Further decrease in demand for hollow-core floors.

PROTECTION FROM FIRE

C BUILDING CODE Protection from fire

F7 BUILDING CODE Warning systems

Reasons for change:

Protection from fire for residential homes – The demand in multi-unit dwellings continues to increase and the compliance pathways for low-rise residential housing do not provide simple solutions for the associated fire risks.

Fire safety system standards – The standards for smoke alarms, fire alarms, sprinklers and smoke control systems are out-of-date and do not reflect modern design practices.

Proposed solutions:

- Increase the scope of the compliance pathway to include more types of low-rise multi-unit homes.
- Provide new requirements for the fire safety systems, means of escape, and control of fire and smoke spread for residential homes.

- Cite the latest standards on fire safety systems.
- Require interconnected smoke alarms throughout all bedrooms of a house so that all occupants will be notified in the event of a fire in any part of a house.

Expected impacts:

Increase fire safety for new residential homes.

Promote higher density residential housing.

Modernise compliance pathways.

Marginal construction cost increases.