VICTORIAN BUILDING AUTHORITY

PLUMBING PRACTICE NOTE

Rainwater RW 01 | Rainwater supply for water closet cisterns

Audience

The audience/s for this Practice Note include/s:

- ☒ Architects/ Designers
- ☒ Builders
- ☒ Building Surveyors/ Inspectors
- ☐ Engineers
- ☐ Home Owners / Residential Tenants
- ☒ Owner Builders
- ☒ Plumbers
- ☐ Real estate management agents
- ☐ Trades and Maintenance (inc. Electricians)

Purpose

This Practice Note provides guidance to inform practitioners about the requirements for rainwater supply to water closet cisterns.

The content below provides guidance on:

- Background
- Connection methods and backflow prevention

For guidance on the plumbing regulatory framework, refer to Plumbing Practice Note RF 01 Regulatory Framework Plumbing NCC

Abbreviations & Definitions

The abbreviations and definitions set out below are for guidance only. They are not intended to vary those set out in the Building Act 1993, the Building Regulations 2018 or the National Construction Code.

- **Act –** Building Act 1993
- **NCC** – National Construction Code 2022
- **Regulations** – Plumbing Regulations 2018

Background

Plumbing Regulations 2018 states that:

1. If a reticulated water supply from a network utility operator is connected, or proposed to be connected to a building where a rainwater tank is installed for the purpose of sanitary flushing, an automatic or manual interchange device that allows alternate use of water from the rainwater tank or the reticulated water supply must be installed to ensure that there is a continual supply of water for sanitary flushing.

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2. A rainwater tank installed in a new Class 1 building in order to comply with the requirements of the energy efficiency of the building regulations must:

- be installed in such a way that it receives the rainfall from a minimum catchment area of 50 square metres; and
- have a minimum capacity of 2000 litres; and
- be connected to all toilets in the building for the purpose of sanitary flushing.

Connection methods and backflow prevention

Where it is necessary to connect both rainwater and drinking water for flushing purposes, the drinking water supply must be protected against backflow, either by providing an air gap or installing a backflow prevention device.

Where a backflow prevention device is to be installed, the type of device required will depend upon whether the rainwater tank is above ground or buried. If the rainwater tank is above ground, the risk classification will usually be LOW, and a dual check valve will be satisfactory. If the rainwater tank is buried, the risk classification is high (refer to Volume 3 of the NCC VIC S41C4) and a testable device is required, refer to AS/NZS 3500.1 Table 4.4.1 for suitable backflow devices.

The installation must comply with AS/NZS 3500.1 using WaterMark approved materials.

A compliance certificate is required if the total cost of the installation, including the cost of the storage tank, is $750 or more. Typical installation options are shown in Figures 1 to 3.

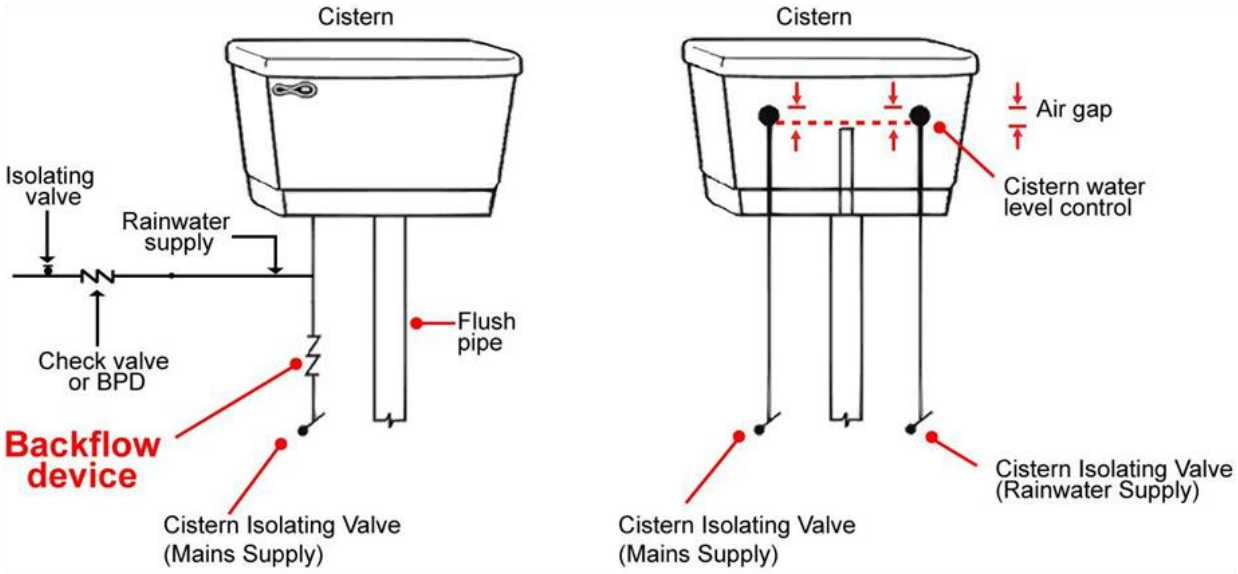

Figure 1 – Typical connections at or near a water closet cistern

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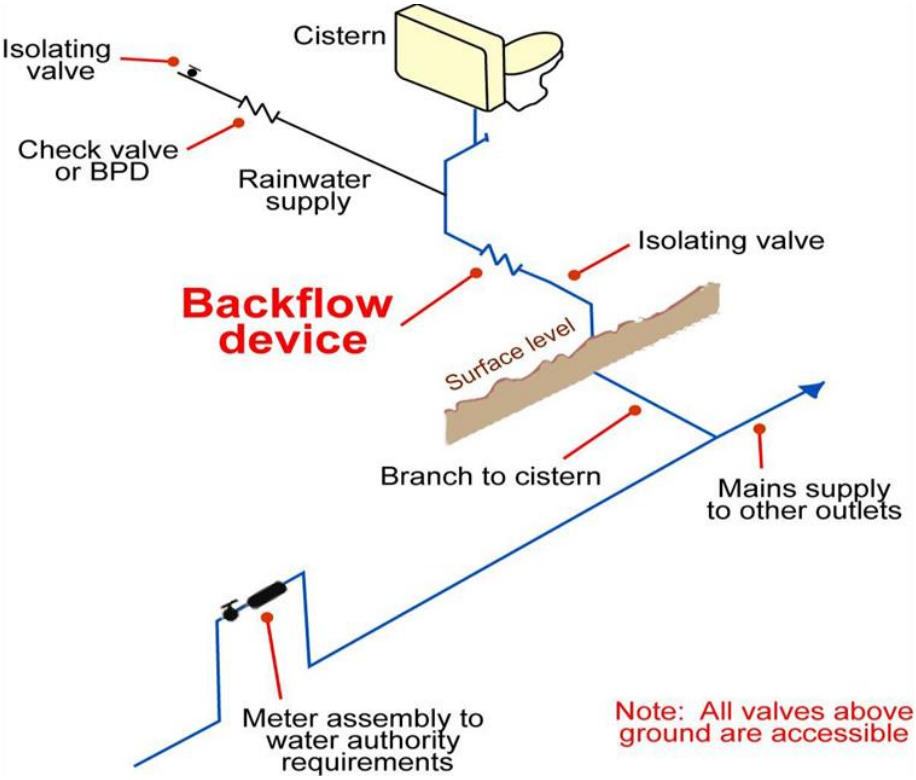

Figure 2 – Typical connections near a water closet cistern
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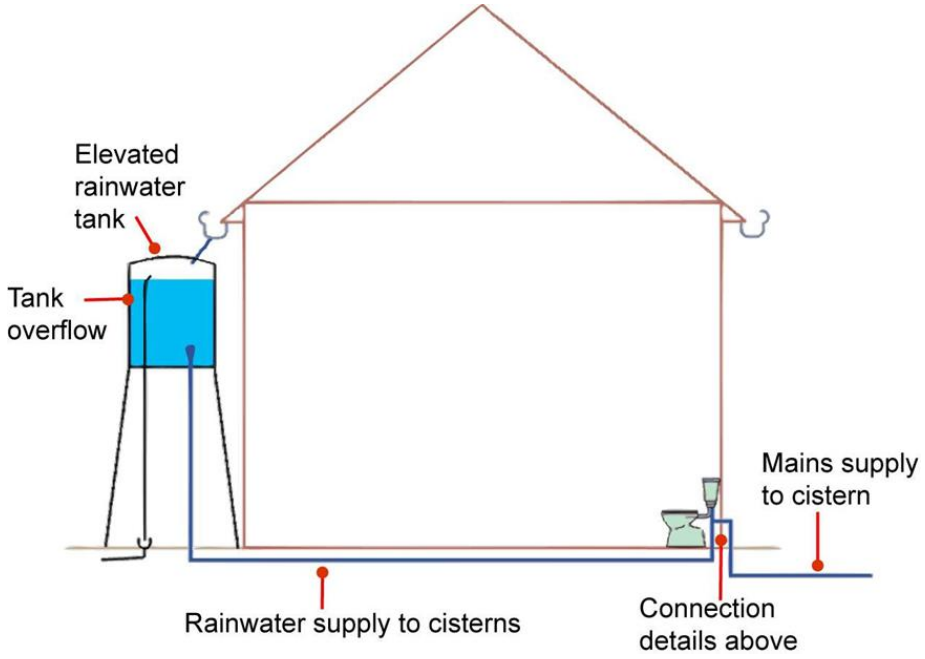

Figure 3 – Typical schematic layout with an elevated rainwater tank
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Related Documentation

- Building Act 1993
- Plumbing Regulations 2018
- National Construction Code 2022
- HB 230 Rainwater Tank Design and Installation Handbook 2008

List of Amendments

- References to AS/NZS 3500.1 backflow protection have been removed and references to NCC 2022 included
- Updated format and content reviewed

Document history

Sector	Plumbing
Category	Rainwater
Topic	Supply for water closet cisterns
Document number	01
Version	1.0
Superseded	• Technical Solution Sheet 99.01 99: Rainwater Tank Installation (Duplication solution of 5.08 (Cold water plumbing) Rainwater Supply for Water Closet Cistern, published June 2014 • Technical Solution Sheet 5.08 5: Cold Water Plumbing (Duplication solution of 99.01 (Rainwater tank installation) Rainwater Supply for Water Closet Cisterns, published June 2014
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