

Issue: Soffit requirements when connecting to a Sydney Water sewer main

To: Licensees / Contractors/ the Plumbing and Drainage Industry

From: PIAS, Better Regulation Division, Parramatta

Date: May 2021

Scope: Applies to all areas in Sydney Water area of operation

Issue:

The soffit requirement is the depth from the controlling surface level on the property (usually the overflow relief gully) to the soffit of the sewer connection point. The soffit requirement is based on providing assurance that a reticulation sewer, flowing at full capacity, will not **surcharge** via the customer sanitary drain.

Where the minimum soffit requirements cannot be achieved for a property connection, an alternative means of safeguarding against surcharge shall be determined e.g. pumping system or installing a reflux valve. Such measures shall comply with AS 3500.2 as reference below and the requirements of the Network Utility Operator (NUO Sydney Water)

WHEN A CONNECTION IS MADE TO A SYDNEY WATER SEWER SYSTEM, THE LICENSEE MUST ACHIEVE THE FOLLOWING SOFFIT REQUIREMENTS, AS REQUIRED BY SYDNEY WATER

- 1. 1200mm is the minimum soffit height**
- 2. The soffit height can be reduced to 900mm for connections where there are less than 10 properties upstream of the connection point**
- 3. Where the 1200mm cannot be achieved, or cannot be reduced to 900mm (as per point 2 above) then a reflux valve is required to be fitted subject to a minimum soffit height of 600mm being achieved.**
- 4. Where the 600mm minimum soffit height (as per point 3 above) is not achieved then all connections are required to connect by use of a pump**

Where a surcharge is likely to occur due to insufficient soffit requirements and a reflux valve is to be installed, it shall be located immediately downstream from and adjacent to the outlet of the inspection shaft or boundary trap. Where a pump is required due to insufficient soffit height then application to Sydney Water is to be made for approval to pump.

When the licensee requires further information regarding soffit requirements within the Sydney Water Area of Operations, they are to contact Sydney Water at connections@sydneywater.com.au

If the plumber has failed to comply with the soffit requirements, a non compliance may be issued.

References:

- A. Plumbing Code of Australia,
NSW C2.2 Deemed-to-Satisfy Provisions**

- (a) The design, construction, installation, replacement, repair, alteration and maintenance of a sanitary *drainage* system must be in accordance with:
- (i) AS/NZS 3500.2 with the following variations:
- (D) Delete clause 4.5.3 and replace as follows:
Where a surcharge is likely to occur and a reflux valve is to be installed, it shall be located in accordance with the following:
- (a) Where the drain has an inspection shaft or boundary trap, the reflux valve shall be located immediately downstream from and adjacent to the outlet of the shaft or trap.
- (b) The invert of the outlet of the reflux valve shall be installed a minimum of 80 mm higher than the invert of the Network Utility Operator's system it is connected to. See NSW Figure C2.2 Reflux Valves

(b) Australian Standard 3500.2:2018

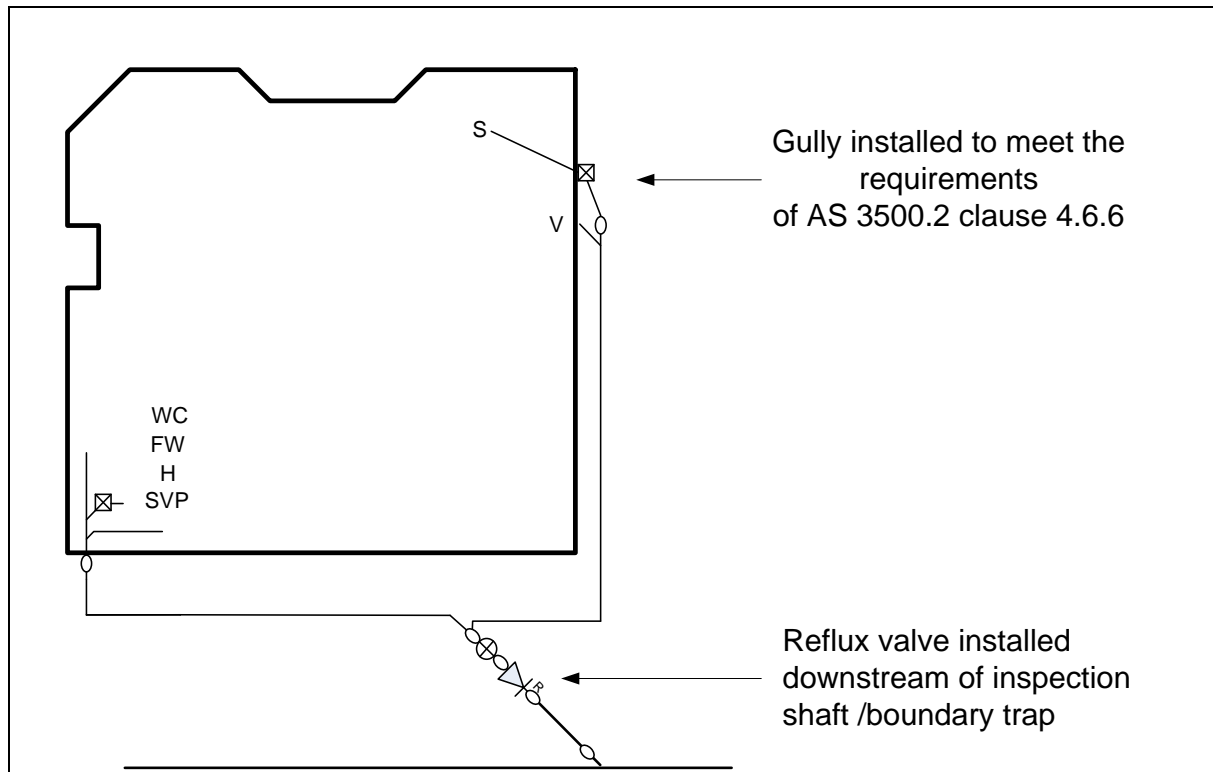
4.2 POINT OF CONNECTION

4.2.1 General

Drains connected to the network utility operator's sewer shall be not less than DN 100.

NOTES:

- 1 When connecting fixtures that operate to a sewer by gravity, care should be taken to ensure that the flood level rim of the lowest fixture or trap is of adequate height above the soffit of the sewer so as to avoid the sewer discharging onto the property under normal operating conditions.
- 2 Where the height of the lowest fixture or trap in Note 1 cannot be achieved, then consideration should be given to the lowest fixture or trap discharging to the sewer:
 - (i) Through a reflux valve in accordance with Clause 4.5; or
 - (ii) By means of a sewage ejector or pump, complying with Section 12.
- 3 Where a sanitary drain is to connect to a network utility operator's sewer, information relating to any restrictions regarding soffit requirements and the point of connection should be obtained from the network utility operator prior to commencing any design.



Example: Location/s of Reflux Valve if Soffit not achievable.

Contact:

This technical note has been approved for issue by the PIAS Technical Review Committee. Information contained within this document is current as at May 2021 and refers to codes and standards current at the time of writing.

This technical note must not be relied on as legal advice. For more information please refer to the appropriate legislation or seek legal advice.

NSW Fair Trading disclaims any liability (including for negligence) to any person in respect of anything done, or not done, by that person in whole or partial reliance on any of the information in this technical note.