## Australian/New Zealand Standard™

# National plumbing and drainage

Part 3.2: Stormwater drainage—Acceptable solutions





#### AS/NZS 3500.3.2:1998

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee WS/20, Stormwater. It was approved on behalf of the Council of Standards Australia on 1 May 1998 and on behalf of the Council of Standards New Zealand on 15 May 1998. It was published on 5 June 1998.

The following interests are represented on Committee WS/20:

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Originated in Australia in part as part of AS CS3—1931. Previous editions AS 2180—1986 and AS 3500.3—1990. AS 2180—1986 and AS 3500.3—1990 jointly revised, amalgamated and redesignated in part as AS 3500.3.2:1998.

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#### **PREFACE**

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee WS/20, Stormwater, to supersede AS 2180—1986, *Metal rainwater goods—Selection and installation*, and AS 3500.3—1990, *National Plumbing and Drainage Code*, Part 3: *Stormwater drainage*.

This Standard is part of a series, as follows:

AS 3500.3.1 Part 3.1: Stormwater drainage—Performance requirements

AS/NZS 3500.3.2 Part 3.2: Stormwater drainage—Acceptable solutions (this Standard)

Stormwater drainage—Methods for verification (Part 3.3) is in the course of preparation.

The objective of this Standard is to provide installers with acceptable solutions for materials and products and design and installation of stormwater drainage systems. These solutions are not intended to exclude the use of other solutions.

This edition sets out acceptable solutions for the following:

- (a) Roof drainage systems:
  - (i) A general method for design incorporating recent Australian research on the following:
    - (A) Eaves gutter systems—procedures similar to those of AS 2180—1986 but with significant decreases in the ratios for the effective cross-sectional area of eave gutter to vertical downpipes.
    - (B) Box gutter systems—procedures similar to those in AS 2180—1986 with additional procedures for sump/side overflow and sump/high-capacity overflow devices.
    - (C) Valley gutters—procedures based on research published in 1988 by Martin and Tilley (see Paragraph A2).
  - (ii) Installation, based on modifications and additions to AS 2180—1986.
- (b) Surface drainage systems:
  - (i) Nominal and general methods for design.
  - (ii) Installation, based on modifications and additions to AS 3500.3—1990.
- (c) Subsoil drainage systems design and installation, based on modifications and additions to AS 3500.3—1990.

The advantage of the roof drainage general method is the relative simplicity of its application. Continuing analysis of available experimental data is expected to result in new procedures for the design of—

- (a) valley gutters; and
- (b) eaves gutters with bends at various gradients for a wide range of cross-sections, sizes and depth to width ratios of 1:0.4 to 1:3.0.

Statements expressed in mandatory terms in notes to figures and tables are deemed to be requirements of this Standard.

The terms 'normative' and 'informative' have been used in this Standard to define the application of the appendix to which they apply. A 'normative' appendix is an integral part of a Standard, whereas an 'informative' appendix is only for information and guidance.

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