

AS/NZS 2041:1998

Australian/New Zealand Standard™

Buried corrugated metal structures

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This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee CE/25, Corrugated Metal Pipes and Arches. It was approved on behalf of the Council of Standards Australia on 5 December 1997 and on behalf of the Council of Standards New Zealand on 27 March 1998. It was published on 5 May 1998.

The following interests are represented on Committee CE/25:

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Australasian Railway Association
Australian Chamber of Commerce and Industry
Metal Trades Industry Association of Australia
New Zealand Heavy Engineering Research Association
Standards New Zealand
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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee, Corrugated Metal Pipes and Arches, to supersede AS 2041—1984, *Corrugated steel pipes, pipe-arches and arches*, and AS 2042—1984, *Corrugated steel pipes, pipe-arches and arches—Design and installation*.

The objective of this Standard is to provide manufacturers, designers and users of buried corrugated metal pipes, arch-pipes and arch structures as distinct from those products specified in AS 1761—1985, *Helical lock-seam corrugated steel pipes*, AS 1762—1984, *Helical lock-seam corrugated steel pipes—Design and installation*, AS 3703.1—1989, *Long-span corrugated steel structures—Materials and manufacture*, and AS 3703.2—1989, *Long-span corrugated steel structures—Design and installation*, with requirements for manufacture and installation and methods for design of such structures for use under road, railway and other earthworks as culverts, and access ways.

This edition incorporates the following major changes:

- (a) Combination of materials, manufacture, design and installation information into a single document, as the interaction of these influencing factors determines the behaviour of composite soil-corrugated metal structures.
- (b) Elimination of Class 1 riveted pipe due to obsolescence and upgrade of Class 1 nestable jointing system.
- (c) Revision of Class 2 steel grade.
- (d) Revision of structure dimensions and addition of plate layout, bolting arrangement and tolerances.
- (e) Addition of metals other than steel, structure shapes, alternative protective coatings and wall thicknesses, and modified fill.
- (f) Addition of arch footing force design and pipe-arch haunch pressure limits.
- (g) Revision of live loading to conform to current Australian Bridge Design methods and inclusion of non-standard live loads.
- (h) Revision of height of cover tables.
- (i) Addition of durability design information.

The term 'informative' has been used in this Standard to define the application of the appendix to which it applies. An 'informative' appendix is only for information and guidance.

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