Australian/New Zealand Standard™

Technical drawing

Part 501: Structural engineering drawing

Standards Australia

STANDARDS NEW ZEALAND

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee ME-072, Technical Drawing. It was approved on behalf of the Council of Standards Australia on 22 June 2001 and on behalf of the Council of Standards New Zealand on 3 December 2001. It was published on 29 January 2002.

The following interests are represented on Committee ME-072:

Australian Chamber of Commerce and Industry
Australian Institute of Quantity Surveyors
AUSTROADS
Department for Employment, Training and Further Education (South Australia)
Department of Defence (Australia)
Design Association of New Zealand
Institute for Drafting and Design Australia
Institute of Industrial Arts
Master Builders Australia
Steel Reinforcement Institute of Australia
TAFE, NSW
University of Melbourne

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We also welcome suggestions for improvement in our Standards, and especially encourage readers to notify us immediately of any apparent inaccuracies or ambiguities. Please address your comments to the Chief Executive of either Standards Australia International or Standards New Zealand at the address shown on the back cover.

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee ME-072, Technical Drawing, to supersede AS 1100.501—1985, *Technical drawing*, Part 501: *Structural engineering drawing*.

The objective of the Standard is to provide engineers, architects, builders, drafting officers and others in the construction industry with a common method for the representation of structures and their components to enable the preparation and unambiguous interpretation of structural drawings.

This Standard is one of a series dealing with technical drawings. The other Standards in the series are the following:

Part 101: General principles

Part 201: Mechanical engineering drawing

Part 301: Architectural drawing

Part 401: Engineering survey and engineering survey design drawing

Reference to Part 101 is required for the source, definition and basic requirements of some of the contents of this Standard.

In the preparation of this Standard, the committee took account of the recommendations of the International Organization for Standardization.

In addition to the relevant international Standards listed in AS 1100.101, this Standard is in agreement with the following international Standards:

ISO
3766 Construction drawings—Simplified representation of concrete reinforcement

4066 Construction drawings—Bar scheduling

This Standard has three sections, as follows:

(a) Section 1 deals with general information on the Standard and on the general requirements.

(b) Section 2 deals with matters applicable to all structural drawings and contains conventions, symbols and abbreviations for the general user.

(c) Section 3 contains conventions for use in particular applications or with specific materials.

It is acknowledged that the use of computer-aided drafting (CAD) now plays an important part in producing technical drawings. In line with the practice of international Standards committees dealing with areas related to technical drawings, the requirements and principles of this Standard apply equally to users of CAD systems.

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SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

This Standard sets out requirements and recommendation for structural engineering drawing practice and is complementary to AS 1100.101. This Standard deals with the presentation of information.

The types of structures intended to be dealt with by this Standard are generally those covered by structural design and construction Standards and codes, particularly the following:

AS	
1720	Timber Structures Code
2327	Composite structures
2327.1	Part 1: Simply supported beams
3600	Concrete structures
3700	Masonry structures
3990	Mechanical equipment—Steelwork
4100	Steel structures
AS/NZS	
1148	Timber—Nomenclature—Australian, New Zealand and imported species
1664	Aluminium structures
4600	Steel structures
NZS	
3101	Concrete Structures Standard
3404	Steel Structures Standard
3603	Timber Structures Standard
4230	Code of practice for the design of masonry structures
AUSTROADS	Bridge Design Code

NOTE: For cold-formed steel structures, stainless steel structures and aluminium structures, the pictorial representation is similar to general structural steelwork drafting.

1.2 APPLICATION

The principles given in this Standard are intended for adoption by engineers, architects, drafting persons and builders in both Government authorities and private enterprise.

The Standard is intended as a basis for common practice and consistency of application, upon which technical organizations can base their own detailed rules or manuals for the preparation and presentation of drafting work. It is also intended that the Standard be sufficiently complete for most applications, and that drafting offices or persons would only need further guidelines when drawing specialized structures or when working outside the scope of the Standard.