AS 4773.2—2010

Australian Standard®

Masonry in small buildings

Part 2: Construction

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- Association of Consulting Engineers Australia
- Australian Building Codes Board
- Australian Chamber of Commerce and Industry
- Australian Industry Group
- Australian Institute of Building Surveyors
- Building Designers Association of Australia
- Cement Concrete & Aggregates Australia
- Think Brick Australia
- Concrete Masonry Association of Australia
- Engineers Australia
- Galvanizers Association of Australia
- Housing Industry Association
- Masonry Contractors Association of NSW
- Master Builders Australia
- NSW Department of Commerce
- University of Newcastle

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Standards Australia wishes to acknowledge the participation of the expert individuals that contributed to the development of this Standard through their representation on the Committee and through the public comment period.

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Originated as part of AS 3700—2001.
AS 3700—2001 revised, in part, and designated AS 4773.2—2010.

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PREFACE

This Standard was prepared by the Standards Australia Committee BD-097, Masonry Construction—Small Buildings, to supersede, in part, AS 3700—2001.

The objective of this Standard is to provide simplified details for use by builders for the construction of masonry in small buildings such as houses and garages.

This Standard is intended as a companion document to AS 4773.1, *Masonry in small buildings*, Part 1: *Design*.

The Committee acknowledges valuable assistance given by organizations and individuals experienced in various aspects of design and construction of masonry.

Statements expressed in mandatory terms in notes to tables and figures 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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STANDARDS AUSTRALIA

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SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

This Standard provides acceptable construction practices for masonry in buildings of Class 1 and Class 10a, as defined in the BCA, and designed in accordance with AS 4773.1 and documented in drawings and specifications to be constructed from clay, concrete, or calcium silicate masonry units complying with Section 2 and the following:

(a) Leaf thicknesses are 90 mm or greater.

(b) The tops of all walls are laterally supported by a roof or floor structure acting as a diaphragm with the exception of parapets, chimneys and cantilevers in accordance with Clause 14.10 and fin walls in accordance with Table 9.1.

(c) Walls are supported on concrete slabs or footings complying with AS 2870 or suspended slabs complying with AS 3600.

(d) The geometric limitations specified in Clause 1.2.3.

The Scope of this Standard does not cover the following:

(i) Acoustics and energy efficiency.

(ii) Construction or detailing of attachments such as basketball hoops, satellite dishes, shade structures and similar structures.

(iii) Masonry constructed from autoclaved aerated concrete (AAC) units.

(iv) Structures required to be designed for earthquake actions in accordance with AS 1170.4.

NOTES:

1 For acoustic and energy efficiency requirements, see the BCA.

2 For applications outside the scope of this Standard, the masonry should be constructed in accordance with AS 3700.

3 Information that is to be provided on drawings and specifications is given in Appendix A.

4 Guidance on the cleaning of masonry is given in Appendix B.

1.2 GENERAL LIMITATIONS

1.2.1 Materials

This Standard covers buildings constructed from clay, concrete or calcium silicate masonry units complying with AS/NZS 4455.1.

NOTE: The properties required for these units are defined in Section 2.

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1.2.2 Loading

Wind category and loads derived from AS 4055 are required for the use of some of the Tables in this Standard.

NOTES:

1 For wind loads on structures outside the scope of Clause 1.2.3, AS/NZS 1170.2 should be used in conjunction with AS 3700.

2 The loads specified in AS 4055 include the appropriate combinations of permanent and wind actions.

1.2.3 Limitations for building geometry

For the purpose of this Standard, the following conditions apply (see Figure 1.1):

(a) The distance from ground level to the underside of eaves shall not exceed 6.0 m. The distance from ground level to the highest point of the roof, neglecting chimneys, shall not exceed 8.5 m, and the height of each storey, measured as floor to ceiling at external walls, shall not exceed 3.0 m.

(b) The width (W), including roofed verandas but excluding eaves, shall not exceed 16.0 m, and the length (l) shall not exceed five times the width.

(c) The roof pitch shall not exceed 35°.

(c) Eaves width shall not exceed 900 mm.

(d) The building shall include a continuous ceiling that acts as a diaphragm.

NOTES:

1 Atria exceeding these dimensions are outside the scope of this Standard.

2 Where the geometry lies outside the limitations of this Section, the design may be carried out in accordance with AS 3700.

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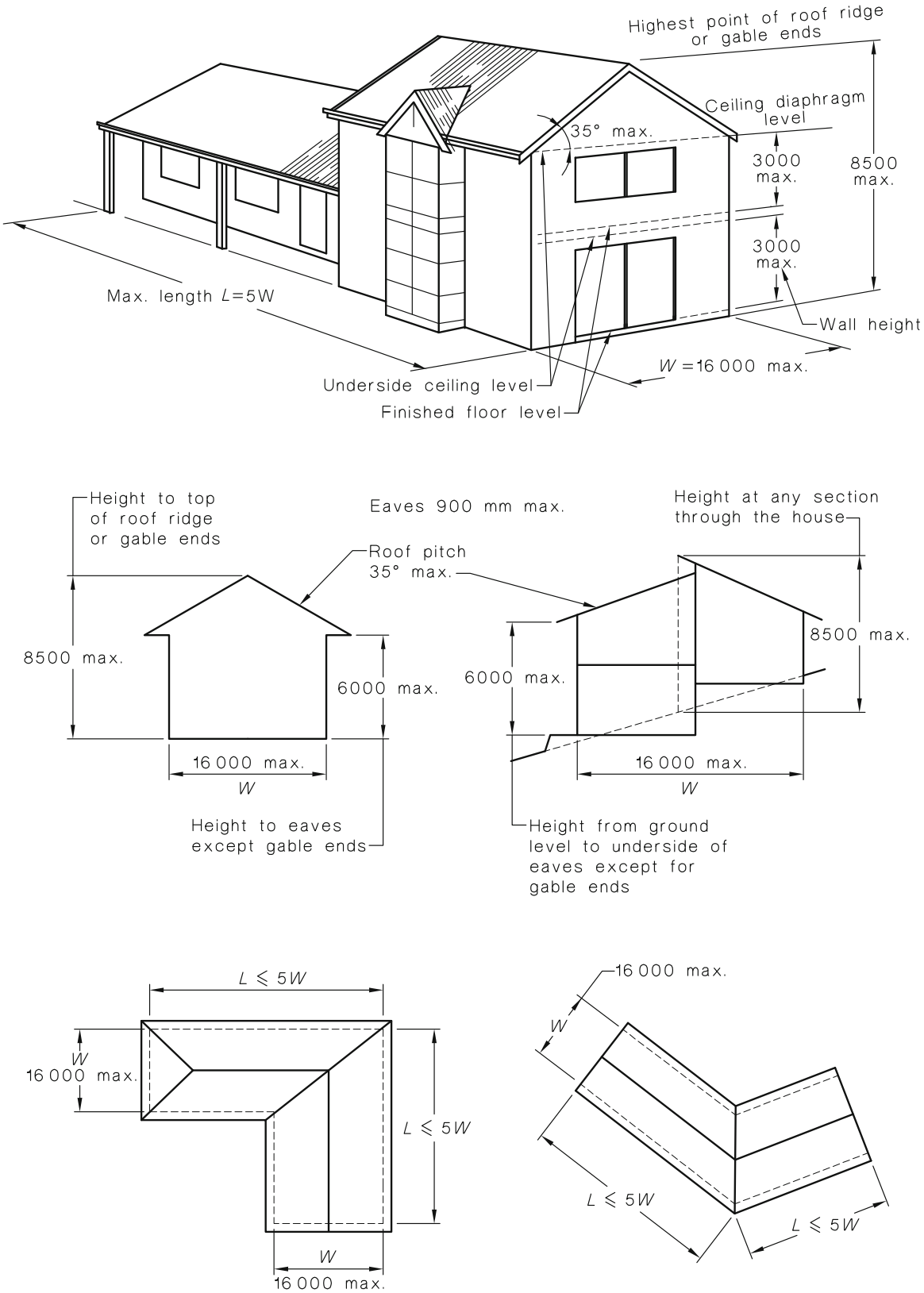

DIMENSIONS IN MILLIMETRES

FIGURE 1.1 BUILDING GEOMETRY

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1.3 NORMATIVE REFERENCES

The following are the normative documents referenced in this Standard:

NOTE: Documents referenced for informative purposes are listed in the Bibliography.

AS

1141 Methods for sampling and testing aggregates (series)

1316 Masonry cement

1478 Chemical admixtures for concrete, mortar and grout

1478.2 Part 2: Methods of sampling and testing admixtures for concrete, mortar and grout

1672 Limes and limestones

1672.1 Part 1: Limes for building

1684 Residential timber-framed construction (series)

1720 Timber structures (series)

2870 Residential slabs and footings—Construction

3600 Concrete structures

3660 Termite management

3660.1 Part 1: New building work

3700 Masonry structures

3972 Portland and blended cements

4055 Wind loads for housing

4100 Steel structures

4773 Masonry in small buildings

4773.1 Part 1: Design

AS/NZS

2699 Built-in-components for masonry construction

2699.1 Part 1: Wall ties

2699.3 Part 3: Lintels and shelf angles (durability requirements)

2904 Damp-proof courses and flashings

4455 Masonry units, pavers, flags and segmental retaining wall units

4455.1 Part 1: Masonry units

4600 Cold-formed steel structures

4671 Steel reinforcing materials

BS

1014 Specification for pigments for Portland cement and Portland cement products

NASH Standard for Residential and Low-rise Steel Framing
Part 1 Design criteria

BCA Building Code of Australia

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