AS 2601:2025

Australian STANDARD®

STANDARDS Australia

The demolition of structures



AS 2601:2025

This Australian Standard® was prepared by BD-059, Demolition Of Structures. It was approved on behalf of Standards Australia's Standards Development and Accreditation Committee on 26 May 2025.

This Standard was published on 6 June 2025.

The following are represented on Committee BD-059:

Asbestos & Hazardous Materials Consultants Association
Australian Council of Recycling
Australian Institute of Building Surveyors
Concrete Institute of Australia
Demolition & Asbestos Industry Association (QLD)
Demolition & Asbestos Industry Association of Victoria
Engineers Australia
Facility of Asbestos Management of Australia and New Zealand
Housing Industry Association
Master Builders Australia
SafeWork NSW
Unions NSW
Victorian WorkCover Authority (WorkSafe Victoria)
WorkSafe Division — Department of Energy, Mines, Industry Regulation and Safety (DEMIRS) WA

This Standard was issued in draft form for comment as DR AS 2601:2024.

Keeping Standards up-to-date

Ensure you have the latest versions of our publications and keep up-to-date about Amendments, Rulings, Withdrawals, and new projects by visiting:
www.standards.org.au

ISBN 978 1 76175 197 4

The demolition of structures

Originated as AS 2601—1983.
Previous edition AS 2601—2001.
Fourth edition 2025.

© Standards Australia Limited 2025

All rights are reserved. No part of this work may be reproduced or copied in any form or by any means, electronic or mechanical, including photocopying, without the written permission of the publisher, unless otherwise permitted under the Copyright Act 1968 (Cth).

How to read this Standard

This page explains the meaning of the language and structure of this Standard.

Refer to Standards Australia's Standardisation Guide 006 for more details about drafting rules.

Australian and Australian/New Zealand Standards are voluntary unless they are referenced in legislation or called up in contracts.

Requirements

To conform to a Standard, all requirements in the Standard need to be met.

A requirement is any statement in the Standard which uses the word "shall".

Recommendations, permissions and possibilities

The following words are commonly used in Standards, but statements using them do not have to be followed to conform to the Standard:

(a) "should" means that something is recommended.

(b) "may" means that something is permitted.

(c) "can" means that something is possible.

Structure of Standards

A Standard always has the following parts:

(i) The Preface states who developed the Standard, what the Standard is aiming to do, and how it relates to other documents.

(ii) The Scope states what the Standard is about, what it covers and what it does not cover.

(iii) The Normative references clause lists other documents that are referenced in the Standard as part of requirements.

(iv) The Terms and definitions clause defines important terms to help with understanding the Standard.

A Standard may also include other parts, such as the following:

(1) A normative appendix sets additional requirements that need to be conformed to.

(2) An informative appendix provides additional information or guidance. They usually do not contain requirements. If an informative appendix does contain requirements, the Standard will explain when those requirements apply

(3) A Bibliography lists documents referenced in the Standard but not as part of requirements.

Many Standards include notes. Notes provide recommendations and/or guidance only. They never contain requirements.

Preface

This Standard was prepared by the Standards Australia Committee BD-059, Demolition of Structures, to supersede AS 2601—2001.

The objective of this document is to provide requirements and recommendations for the demolition of the loadbearing parts of a building.

The major changes in this edition are as follows:

(a) Restructure of content.

(b) Increased stringency of requirements.

(c) Update of public protection requirements.

(d) Expansion of hazardous materials.

(e) Enhanced demolition methodologies.

The terms “normative” and “informative” are used in Standards to define the application of the appendices to which they apply. A “normative” appendix is an integral part of a Standard, whereas an “informative” appendix is only for information and guidance.

© Standards Australia Limited 2025

Contents

Preface ... **iii**

Section 1 Scope and general ... **1**
1.1 Scope ... 1
1.2 Normative references ... 1
1.3 Terms and definitions ... 2
1.4 New designs and innovations ... 6

Section 2 Site investigation ... **7**
2.1 General ... 7
2.2 Desktop study ... 7
2.3 Site inspection ... 8
2.4 Reporting ... 8

Section 3 Demolition risks and hazards ... **11**
3.1 General ... 11
3.2 Work health and safety ... 11
3.2.1 General safety of work areas ... 11
3.2.2 Essential services ... 11
3.2.3 Emergency contacts ... 12
3.2.4 Temporary electrical installations ... 12
3.2.5 Lighting ... 12
3.2.6 Access and egress ... 12
3.2.7 Fire protection ... 13
3.2.8 Mobile plant and equipment ... 13
3.2.9 Falling materials ... 14
3.2.10 Dust control ... 14
3.2.11 Noise control ... 14
3.2.12 Hazardous substances or materials ... 15
3.2.13 Cutting and hot works ... 16
3.2.14 Working in confined spaces ... 17
3.2.15 Isolated and remote worksites ... 17
3.3 Public health and safety ... 17
3.3.1 General safety of public spaces ... 17
3.3.2 Fencing, hoardings and signage ... 17
3.3.3 Perimeter scaffolding ... 20
3.3.4 Overhead protection structures ... 21
3.3.5 Traffic management ... 22
3.4 Environmental protection ... 22
3.4.1 Sewers, drains and watercourses ... 22
3.4.2 Flora ... 23
3.4.3 Native fauna ... 23
3.4.4 Vermin ... 23

Section 4 Demolition work plan ... **24**
4.1 General ... 24
4.2 Content ... 24
4.2.1 General ... 24
4.2.2 Site establishment ... 25
4.2.3 Pre-demolition activities ... 25
4.2.4 Methods of demolition ... 25
4.2.5 Change management processes and timelines ... 26

Section 5 Site establishment and pre-demolition activities ... **27**
5.1 Onsite supervision ... 27
5.2 Site establishment ... 27
5.2.1 General ... 27
5.2.2 Securing the site ... 27

5.2.3 Site inductions 27
5.2.4 Amenities and first aid 27
5.2.5 Personal protective clothing, equipment and devices 28
5.3 Pre-demolition activities 28
5.3.1 Service scanning 28
5.3.2 Removal of hazardous materials and substances 28
5.4 *In situ* materials and unexpected finds 29
5.4.1 General 29
5.4.2 Hazardous materials and substances 29
5.4.3 Soil and ground contamination 30

Section 6 Demolition methods 31
6.1 General principles 31
6.1.1 General 31
6.1.2 Stability of the structure 31
6.1.3 Loading on floors and slabs 31
6.1.4 Loading against walls 31
6.1.5 Protection of openings 31
6.1.6 Glass 32
6.1.7 Weather 32
6.1.8 Access and egress routes 32
6.1.9 Use of lifts during demolition 32
6.2 Sequence of demolition 33
6.2.1 General 33
6.2.2 Removal of demolished materials from structure 33
6.2.3 Cutting and lowering of large members 33
6.2.4 Management of waste material from site 34
6.2.5 Making the site safe 34
6.3 Manual demolition 34
6.4 Mechanical demolition 34
6.4.1 Mobile powered plant and equipment 34
6.4.2 Load shifting equipment 35
6.4.3 Crane and demolition ball 35
6.5 Induced-collapse demolition 36
6.5.1 General 36
6.5.2 Pulling with ropes or chains 36
6.5.3 Direct pushing or pulling 37
6.6 Explosives 37
6.7 Burning 38

Section 7 Demolition of special structures 39
7.1 General 39
7.2 Pre-tensioned and post-tensioned concrete structures 39
7.2.1 General 39
7.2.2 Demolition of prestressed structures 39
7.3 Damaged or ruinous buildings or structures 41
7.4 Lift shafts 41
7.4.1 General 41
7.4.2 Demolition procedures for lifts 41
7.5 Basements, cellars, vaults, domes and arched roofs 42
7.5.1 General 42
7.5.2 Prevention of flotation in basements 42
7.5.3 Domed vaulted, or arched roofs 42
7.6 Masonry and brick arches 43
7.7 Chimneys and spires 43
7.7.1 General 43
7.7.2 Masonry chimneys 44
7.7.3 Steel chimneys 45
7.7.4 Concrete chimneys (*in situ* and precast) 46

7.8 Precast concrete panels 46
7.8.1 Reinforced precast panel walls 46
7.8.2 Reinforced concrete tilt-up panels 47
7.9 Façade retention 47
7.10 Storage tanks and pipelines 48
7.11 Maritime structures 48
7.12 Hazardous facilities 48

Appendix A (informative) **Demolition checklist** **49**

Appendix B (informative) **Contractual considerations** **52**

Appendix C (informative) **Guidance on the demolition of stressed tendon concrete structures** **55**

Appendix D (informative) **Guidance on demolition procedures** **58**

Bibliography **64**

Australian Standard®

The demolition of structures

Section 1 Scope and general

1.1 Scope

This document sets out requirements and recommendations for the demolition of the loadbearing and non-loadbearing parts of buildings and structures.

This document also provides requirements for a range of controlled demolition methods to minimize risks relating to —

(a) health and safety of the public, site workers, site visitors and occupiers of adjoining properties;

(b) damage to the immediate surrounds; and

(c) damage to adjoining properties.

1.2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document.

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

AS 1319, *Safety signs for the occupational environment*

AS 1418 (all parts), *Cranes, hoists and winches*

AS 1674.1, *Safety in welding and allied processes, Part 1: Fire precautions*

AS 1725.1, *Chain link fabric fencing, Part 1: Security fences and gates — General requirements*

AS 1940, *The storage and handling of flammable and combustible liquids*

AS 2187.2, *Explosives — Storage and use, Part 2: Use of explosives*

AS 2210.2, *Personal protective equipment, Method 2: Test methods for footwear*

AS 2321, *Short-link chain for lifting purposes*

AS 2444, *Portable fire extinguishers and fire blankets — Selection and location*

AS 2550 (all parts), *Cranes, hoists and winches*

AS 2865, *Confined spaces*

AS 3569, *Steel wire ropes — Product specification*

AS 4332, *The storage and handling of gases in cylinders*

AS/NZS 1270, *Acoustics — Hearing protectors*

AS/NZS 1336, *Eye and face protection — Guidelines*

AS/NZS 1337.1, *Personal eye protection, Part 1: Eye and face protectors for occupational applications*

AS/NZS 1576 (all parts), *Scaffolding*

AS/NZS 1715, *Selection, use and maintenance of respiratory protective equipment*

AS/NZS 1716, *Respiratory protective devices*

© Standards Australia Limited 2025