

Australian/New Zealand Standard™

Parking facilities

Part 1: Off-street car parking



AS/NZS 2890.1:2004

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee CE-001, Parking Facilities. It was approved on behalf of the Council of Standards Australia on 12 January 2004 and on behalf of the Council of Standards New Zealand on 23 February 2005.

This Standard was published on 5 March 2004.

The following are represented on Committee CE-001:

ACT Department of Urban Services
Association of Consultants in Access Australia
Australian Building Codes Board
Disabled Persons Assembly New Zealand
Institute of Public Works Engineering Australia
Institution of Engineers Australia
Institution of Professional Engineers New Zealand
Local Government New Zealand
Main Roads Department, Queensland
Monash University
New Zealand Automobile Association
Parking Association of Australia
Property Council of Australia
Property Council of New Zealand
Roads and Traffic Authority of NSW

Keeping Standards up-to-date

Standards are living documents which reflect progress in science, technology and systems. To maintain their currency, all Standards are periodically reviewed, and new editions are published. Between editions, amendments may be issued. Standards may also be withdrawn. It is important that readers assure themselves they are using a current Standard, which should include any amendments which may have been published since the Standard was purchased.

Detailed information about joint Australian/New Zealand Standards can be found by visiting the Standards Web Shop at www.standards.com.au or Standards New Zealand web site at www.standards.co.nz and looking up the relevant Standard in the on-line catalogue.

Alternatively, both organizations publish an annual printed Catalogue with full details of all current Standards. For more frequent listings or notification of revisions, amendments and withdrawals, Standards Australia and Standards New Zealand offer a number of update options. For information about these services, users should contact their respective national Standards organization.

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 or Standards New Zealand at the address shown on the back cover.

This Standard was issued in draft form for comment as DR 02352.

Australian/New Zealand Standard™

Parking facilities

Part 1: Off-street car parking

Originated as AS 2890.1—1986.
Previous edition 1993.
Jointly revised and designated as AS/NZS 2890.1:2004.
Reissued incorporating Amendment No. 1 (August 2005).

COPYRIGHT

© Standards Australia/Standards New Zealand

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.

Jointly published by Standards Australia, GPO Box 476, Sydney, NSW 2001 and Standards New Zealand, Private Bag 2439, Wellington 6020

ISBN 0 7337 5742 1

PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee CE-001, Parking Facilities and supersedes AS 2890.1—1993, *Parking facilities, Part 1: Off-street car parking*.

This Standard incorporates Amendment No. 1 (August 2005). The changes required by the Amendment are indicated in the text by a marginal bar and amendment number against the clause, note, table, figure or part thereof affected.

It is one of a series of Standards on parking facilities as follows:

AS/NZS

2890	Parking facilities
2890.1	Part 1: Off-street car parking (this Standard)
2890.6	Part 6: Off-street parking for people with disabilities*

AS

2890	Parking facilities
2890.2	Part 2: Off-street commercial vehicle facilities
2890.3	Part 3: Bicycle parking facilities
2890.5	Part 5: On-street parking

The objective of this Standard is to provide planners, designers and regulatory bodies with requirements and recommendations for the design and layout of off-street parking facilities.

The following lists the principal changes and additions to this edition of the Standard:

- (a) Publication as a Joint Australia/New Zealand Standard. Where requirements or recommendations apply only to Australia or only to New Zealand, these are indicated in the text or on illustrations.
- (b) Addition of two new user classes, the first aimed at relaxing manoeuvre space requirements to reach parking spaces in residential properties and the second, to increase aisle width requirements at certain high turnover parking areas.
- (c) Expanded detail on parallel parking in parking aisles.
- (d) Changes in ramp grade requirements for private/residential car parks and for parking on domestic properties.
- (e) A reappraisal of design vehicle characteristics and dimensions which includes an increase in the minimum vehicle ground clearance from 100 mm to 120 mm.

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.

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

* In preparation. See footnote to Clause 1.2.

CONTENTS

	<i>Page</i>
FOREWORD.....	4
SECTION 1 SCOPE AND GENERAL	
1.1 SCOPE	5
1.2 REFERENCED DOCUMENTS	5
1.3 DEFINITIONS	6
1.4 CLASSIFICATION OF OFF-STREET CAR PARKING FACILITIES.....	8
SECTION 2 DESIGN OF PARKING MODULES, CIRCULATION ROADWAYS AND RAMPS	
2.1 GENERAL	10
2.2 GENERAL DESCRIPTION	10
2.3 PRELIMINARY DESIGN CONSIDERATIONS	11
2.4 DESIGN OF PARKING MODULES	13
2.5 DESIGN OF CIRCULATION ROADWAYS AND RAMPS	22
2.6 DESIGN OF DOMESTIC DRIVEWAYS	27
SECTION 3 ACCESS FACILITIES TO OFF-STREET PARKING AREAS AND QUEUING AREAS	
3.1 GENERAL	28
3.2 ACCESS DRIVEWAYS—WIDTH AND LOCATION.....	28
3.3 GRADIENTS OF ACCESS DRIVEWAYS.....	33
3.4 QUEUING AREAS	34
3.5 ACCESS TO MECHANICAL PARKING INSTALLATIONS	35
SECTION 4 OTHER CONSIDERATIONS	
4.1 PEDESTRIAN SERVICE.....	36
4.2 BICYCLE PARKING.....	36
4.3 SIGNPOSTING	36
4.4 PAVEMENT MARKINGS.....	41
4.5 PARCEL PICK-UP.....	43
4.6 SHOPPING TROLLEY REQUIREMENTS.....	43
4.7 LIGHTING	44
4.8 LANDSCAPING	44
4.9 HUMPS	45
4.10 SPECIAL LOADING/UNLOADING PARKING SPACES	46
SECTION 5 ADDITIONAL REQUIREMENTS FOR CAR PARKING STRUCTURES	
5.1 GENERAL	47
5.2 COLUMN LOCATION AND SPACING	47
5.3 HEADROOM	48
5.4 DESIGN OF ENCLOSED GARAGES.....	49
APPENDICES	
A DESIGN VEHICLE CHARACTERISTICS AND DIMENSIONS	52
B BASE DIMENSIONS AND DESIGN STANDARDS	56
C GROUND CLEARANCE TEMPLATES	69
D CAPACITY PROVISION AT ENTRY AND EXITS AT LARGE CAR PARKS.....	71

FOREWORD

As an integral part of transportation, provision for car parking is vital to the economic life of communities, whether it is in city central business districts, town business centres, shopping centres, hospitals, department stores, entertainment and sporting facilities, or other traffic generators. Parking areas must also cater for bicycles, motorcycles, pedestrians, and other legitimate users.

The basic dimensions for parking spaces, aisles, circulation roadways and other manoeuvring areas given in this Standard have been determined firstly by an examination of the dimensions of vehicles in the current range, and the selection of an 85th percentile and a 99.8th percentile vehicle (see Appendix A). Following this, a set of base dimensions based on requirements for the so-called B85 and B99 vehicles has been established, and a set of design dimensions has been derived by the addition of working clearances (see Appendix B). The concept of 'parking module' has been adopted to ensure that parking space width and length are properly related to aisle width.

The success of a parking development requires an efficient design. It must represent a balance between function, economics, safety and aesthetics. Consideration must be given to the speed and quality of parking service, the traffic circulation, access to and from the street, the external traffic network, car manoeuvring, and convenience for the drivers and pedestrians, including people with disabilities.

Although it provides minimum requirements, this Standard cannot be taken as a textbook for the design of parking stations. The services of a qualified person experienced in designing car parking facilities should be sought in the application of this document. Moreover, its use does not remove the need to comply with regulatory requirements of local government.

STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

Australian/New Zealand Standard
Parking facilities

Part 1: Off-street car parking

SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

This Standard sets out the minimum requirements for the design and layout of off-street parking facilities, including multi-storey car parks for motor cars, light vans and motorcycles. It includes access and egress requirements for both public and private car parks, and car parking on domestic properties.

1.2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS

- 1348 Glossary of terms—Road and traffic engineering
- 1680 Interior lighting
- 1680.2.1 Part 2.1: Circulation spaces and other general areas
- 1742 Manual of uniform traffic control devices
- 1742.1 Part 1: General introduction and index of signs
- 1742.2 Part 2: Traffic control devices for general use
- 1742.10 Part 10: Pedestrian control and protection
- 1742.13 Part 13: Local area traffic management
- 1744 Forms of letters and numerals for road signs
- 2890 Parking facilities
- 2890.3 Part 3: Bicycle parking facilities

AS/NZS

- 1158 Road lighting
- 1158.3.1 Part 3.1: Pedestrian area (Category P) lighting—Performance and installation design requirements
- 1170 Structural design actions
- 1170.1 Part 1: Permanent, imposed and other actions

This is a free preview. Purchase the entire publication at the link below:

-
- ▶ Looking for additional Standards? Visit [SAI Global Infostore](#)
 - ▶ Subscribe to our [Free Newsletters about Australian Standards® in Legislation; ISO, IEC, BSI and more](#)
 - ▶ Do you need to [Manage Standards Collections Online?](#)
 - ▶ Learn about [LexConnect, All Jurisdictions, Standards referenced in Australian legislation](#)
 - ▶ Do you want to [know when a Standard has changed?](#)
 - ▶ Want to [become an SAI Global Standards Sales Affiliate?](#)

Learn about other SAI Global Services:

- ▶ [LOGICOM Military Parts and Supplier Database](#)
- ▶ [Metals Infobase Database of Metal Grades, Standards and Manufacturers](#)
- ▶ [Materials Infobase Database of Materials, Standards and Suppliers](#)
- ▶ [Database of European Law, CELEX and Court Decisions](#)

Need to speak with a Customer Service Representative - [Contact Us](#)