AS/NZS 3084:2003
(Incorporating Amendment No. 1)

Australian/New Zealand Standard™

Telecommunications installations—Telecommunications pathways and spaces for commercial buildings (ISO/IEC 18010:2002, MOD)

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee CT-001, Communications Cabling for Commercial Buildings. It was approved on behalf of the Council of Standards Australia on 3 December 2002 and on behalf of the Council of Standards New Zealand on 27 November 2002.
This Standard was published on 20 March 2003.

The following are represented on Committee CT-001:

Australian Chamber of Commerce and Industry
Australian Communications Authority
Australian Communications Industry Forum
Australian Electrical and Electronic Manufacturers Association
Australian Information Industry Association
Australian Telecommunications Users Group
BICSI Australia
Electrical Compliance Testing Association
Electrical Regulatory Authorities Council
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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 02286.

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee CT-001, Communications Cabling for Commercial Buildings to supersede AS 3084-1993.

This Standard incorporates Amendment No. 1 (May 2007). 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.

A1 This Standard is an adoption with national modifications and has been reproduced from ISO/IEC 18010:2002 and ISO/IEC 18010:2002 Amendment 1:2005 and has been varied as indicated to take account of Australian/New Zealand conditions.

The objective of this Standard is to assist architects, planners, designers, engineers, builders, installers, maintenance personnel, building owners, managers and users in the planning of physical pathways and spaces in and between buildings to accommodate the equipment and cabling infrastructure necessary for communications.

As this Standard is reproduced from an International Standard, the following applies:

(a) Its number does not appear on each page of text and its identity is shown only on the cover and title page.

(b) In the source text 'this International Standard' should read 'this Australian/New Zealand Standard'.

(c) A full point should be substituted for a comma when referring to a decimal marker.

References to International Standards should be replaced by references to equivalent Australian or Australian/New Zealand Standards, as follows:

Reference to International Standard		*Australian/New Zealand Standard*	
ISO/IEC		AS/NZS	
11801	Information technology—Generic cabling for customer premises	3080	Telecommunications installations—Integrated telecommunications cabling systems for commercial premises

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.

The normative Appendix ZA has been added to the Standard's main body of text to align this document with the Australian telecommunications and building construction regulatory environment. In New Zealand all references to any and all Australian documents shall be considered **informative only** where no equivalent New Zealand Standard is noted.

Appendix ZB provides design procedures and construction practices which can be referenced in project specific construction contract documents created by Australian and New Zealand users of this document. Much of the information has been updated from AS 3084—1993.

AS 3084—1993 was developed from EIA/TIA-569-A, *Commercial Building Standard for Telecommunications Pathways and Spaces*. This USA Standard was developed with the support of the American Institute of Architects and the Construction Specifications Institute, since it influences both the design and construction of commercial buildings, where various building components are to be structured into facilities which are responsive to telecommunications needs.

Appendix ZC provides guidelines and practical examples for some of the topics covered in Appendix ZB. The material in Appendix ZC has been updated from Appendix A in AS 3084—1993.

It should be noted that this Standard has a special relationship to AS/NZS 3080, *Telecommunications installations—Integrated communications cabling systems for commercial premises*. It recognizes that both building cabling and architectural provisions of the building into which such cabling systems are installed need to be standardized.

In Australia a useful supplement to this Standard is AS/ACIF S 009 which details mandatory installation requirements for customer cabling in Australia, where installations are to be connected to telecommunications carrier networks.

AS/NZS 3000, *Electrical installations (known as the Australian/New Zealand wiring rules)* contains general requirements for cabling pathways within buildings. In Australia only, AS/ACIF S 008, *Requirements for authorised cabling products*, and AS/ACIF S 009 *Wiring rules* provide mandatory requirements for telecommunications cabling products, including telecommunications conduit and pits.

Some of the figures in this Standard are reproduced by courtesy of the following organizations:

Australasian Cable Supports:	Figure ZC3
Esco Industries:	Figures ZC1, ZC2, ZC4
Prospect Electricity:	Figure ZB3
Telstra Corporation:	Figures ZB14, ZB15, ZB16, ZB17

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INTRODUCTION

The telecommunications infrastructure is an integral part of building design. It may include voice, data, environmental control, security, audio, television, sensing, alarms, paging and other low voltage and power limited signal systems. These systems are subject to frequent changes. Design of the pathways and spaces should accommodate this dynamic behaviour. This Standard significantly influences the design of other building services, such as electrical power and heating, ventilation and air conditioning (HVAC).

ISO/IEC 18010 generally makes no specific recommendations among the design options available for telecommunications pathways and spaces. For example, the choice between a conduit system versus a tray system is not delineated. It is up to the telecommunications designer to properly select among the options based upon the applications at hand and the constraints imposed.

This standard generally imposes no specific requirements for the dimensions of pathways and spaces. The reader should refer to

- local regulations and standards,
- telecommunications service providers' rules,
- manufacturers' guidelines.

AUSTRALIAN/NEW ZEALAND STANDARD

Telecommunications installations—Telecommunications pathways and spaces for commercial buildings (ISO/IEC 18010:2002, MOD)

1 Scope

This International Standard specifies the structure and requirements for pathways and spaces within or between buildings for information exchange and telecommunications cabling according to ISO/IEC 11801 and ISO/IEC 15018.

This International Standard also influences space allocation within the building. Both single- and multi-tenant buildings are considered by this Standard.

This standard does not cover safety aspects of the building design, fire stopping measures or telecommunications systems that require any special types of security measures.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60050(826), *International Electrotechnical Vocabulary – Chapter 826: Electrical installations of buildings*

IEC 60364-4-41, *Electrical installations of buildings – Part 4-41: Protection for safety – Protection against electric shock*

IEC 60364-4-44, *Electrical installations of buildings – Part 4-44: Protection for safety – Protection against voltage disturbances and electromagnetic disturbances*

IEC 60364-5-52, *Electrical installations of buildings – Part 5-52: Selection and erection of electrical equipment – Wiring systems*

IEC 61084 (all parts), *Cable trunking and ducting systems for electrical installations*

IEC 61386 (all parts), *Conduit systems for electrical installations – Part 1: General requirements*

ISO/IEC 11801, *Information technology – Generic cabling for customer premises*

ISO/IEC 14763-1, *Information technology – Implementation and operation of Customer Premises Cabling – Part 1: Administration*

ISO/IEC 15018,– *Information technology – Integrated cabling for all services other than mains power in homes, SOHO (Small Office, Home Office), and buildings*[1]

[1)] Under consideration.