

New Zealand Building Code Handbook Third Edition

Prepared by the Department of Building and Housing

This Compliance Document is prepared by the Department of Building and Housing. The Department of Building and Housing is a Government Department established under the State Sector Act 1988.

Enquiries about the content of this document should be directed to:



Department of
Building and Housing
Te Tari Kaupapa Whare

Department of Building and Housing
PO Box 10-729, Wellington.
Telephone 0800 242 243
Fax 04 494 0290
Email: info@dbh.govt.nz

Compliance Documents are available from www.dbh.govt.nz

New Zealand Government

© Department of Building and Housing 2011

This Compliance Document is protected by Crown copyright, unless indicated otherwise. The Department of Building and Housing administers the copyright in this document. You may use and reproduce this document for your personal use or for the purposes of your business provided you reproduce the document accurately and not in an inappropriate or misleading context. You may not distribute this document to others or reproduce it for sale or profit.

The Department of Building and Housing owns or has licences to use all images and trademarks in this document. You must not use or reproduce images and trademarks featured in this document for any purpose (except as part of an accurate reproduction of this document) unless you first obtain the written permission of the Department of Building and Housing.

Handbook: Document History		
	Date	Alterations
First published	July 1992	
Third edition	25 May 2007	
Amendment 11	Published 31 July 2010 Effective 30 September 2010	pp. 6–8, 11 Preface pp. 17–78, Code Clauses – amended and reformatted pp. 79–104A, References – amended and reprinted pp. 105–148f, Definitions – amended and reprinted pp. 150–158, 161–164, 168–170, 172, 176–178, 181, 184–185 187, 189, 191, 193, 196–199, 201, 204–208, Index
Amendment 12	10 October 2011	p. 6, Preface pp. 80–100, 102–104A, References pp. 108, 113–115, 119–120, 122, 125 128, 136, 138, 144, 146–147, 148d–f, Definitions pp. 149–208, Index
Note: Page numbers relate to the document at the time of Amendment and may not match page numbers in current document.		

Document Status

The most recent version of this document, as detailed in the Document History, is approved by the Chief Executive of the Department of Building and Housing. It is effective from 10 October 2011 and supersedes all previous versions of this document.

People using this document should check for amendments on a regular basis. The Department of Building and Housing may amend any part of any document at any time. Up-to-date versions of documents are available from www.dbh.govt.nz

Preface

1.0 INTRODUCTION

1.1 This preface provides an introduction to building controls in New Zealand. This section shows the relationship between the New Zealand Building Code (the Building Code) and various other Provisions that ensure buildings in New Zealand are safe and healthy to use.

1.2 The preface provides a convenient user reference. However, legal interpretation must be based on the actual wording of the Building Act 2004 (the Building Act), and amendments and respective Building Regulations.

2.0 BUILDING CONTROL FRAMEWORK

The regulation and performance of buildings sits under the following three-part framework.

- The **Building Act**, which contains the provisions for regulating building work.
- The various **Building Regulations**, which contain prescribed forms, list specified systems, define 'change the use' and 'moderate earthquake', and set out the rate of levy and fees for determinations.
- The **Building Code**, contained in Schedule 1 of the Building Regulations 1992, which sets performance standards all new building work must meet, and covers aspects such as stability, fire safety, access, moisture, safety of users, services and facilities, and energy efficiency.

The pyramid below illustrates the legislation that forms the building control framework governed by the Building Act.



2.1 The Building Act 2004

The Building Act provides the mandatory framework for the building control system to be followed when undertaking building work in New Zealand. It applies to all:

- buildings including Crown buildings, except those which may be exempt for reasons of national security
- components in a building, including plumbing, electrical and mechanical installations.

The Building Act should be read taking into account the changes under the Building Amendment Act 2005 and any subsequent amendments (copies are on www.legislation.govt.nz).

2.1.1 Purpose

The Building Act aims to improve control of and encourage better practices in building design and construction to provide greater assurance to consumers.

This means:

- more clarity on the standards we expect buildings to meet
- more guidance on how these standards can be met
- more certainty that capable people are undertaking building design, construction and inspection
- more scrutiny in the building consent and inspection process
- better protection for homeowners through the introduction of mandatory warranties.

The purpose of the Building Act is:

- to provide for regulation of building work
- to ensure that people can use buildings safely without endangering their health
- to ensure people can escape a building in case of fire
- to ensure buildings have attributes that contribute appropriately to the health, physical independence and wellbeing of the people who use them

- to ensure buildings are designed, constructed and able to be used in ways that promote sustainable development.

2.1.2 Principles

The Building Act does not contain an equivalent to section 47 of the Building Act 1991 (the former Act), which contained guidance on how a territorial authority should exercise its powers.

Under section 4 of the Building Act (section 6 under the former Act), principles to be applied in performing functions or duties, or exercising powers under the Building Act, now have greater importance. Section 4 should be taken into account when performing functions, duties or exercising powers relating to the granting of waivers or modifications of the Building Code, and the adoption and review of policies on dangerous, earthquake-prone or insanitary buildings.

The Building Act re-states many of the principles outlined in the former Act, and makes explicit some of the implied principles of that legislation (for example, that innovation is important). However, some significant new concepts have been introduced, including a particular focus on the household unit, as well as considering the whole-of-life costs of building work.

The following is a summary of the Building Act principles.

- Household units have an important role in the lives of the people who use them, and are accorded a special focus.
- The Building Code as it relates to household units is important, and household units need to comply with the Building Code.
- Maintenance requirements of household units need to be reasonable, and owners of household units need to be aware of the maintenance requirements of their household units.
- Harmful effects on human health resulting from the use of building methods, products, design or building work need to be prevented or minimised.

- Buildings need to be durable.
- Special traditional and cultural aspects of the intended use of a building need to be recognised.
- The whole-of-life costs of a building need to be considered.
- Standards are important in achieving compliance with the Building Code for building design and construction.
- Innovation in methods of building design and construction is important.
- People who undertake a rescue operation or firefighting in a building need to be able to expect a reasonable level of protection from injury or illness while doing so.
- The extent and effects of the spread of fire need to be limited to protect other household units and other property.
- Other property needs to be protected from physical damage resulting from the construction, use and demolition of a building.
- People with disabilities need to be able to enter and carry out normal activities and processes in a building.
- Buildings of significant cultural, historical or heritage value need to be preserved.
- Energy use in buildings needs to be efficient.
- The use of renewable sources of energy needs to be encouraged.
- Material use in buildings needs to be efficient and sustainable.
- Water use in buildings needs to be efficient and promote water conservation.
- Waste generated during the construction process needs to be reduced.

2.1.3 Application

The Building Act applies to:

- building construction, alteration, demolition or removal
- maintenance of a building's specified systems, such as lifts and fire protection installations.

The Building Act does not cover:

- planning and resource management
- occupational safety and health.

2.1.4 Structure

The Building Act has five parts.

Part 1: Contains the purpose and principles of the Building Act, together with an overview, commencement dates for various Provisions and definitions. These sections provide an important reference when reading and interpreting the Building Act.

Part 2 (and Schedules 1 and 2): Outlines matters relating to the Building Code and building control (such as building consents), including requirements of building work, requirements for the use of buildings, Provisions for certain categories of buildings and Provisions for the safety of dams.

Part 3: Sets out the functions, duties and powers of the Chief Executive of the Department of Building and Housing (the Department), territorial authorities, regional authorities and building consent authorities. It also deals with the accreditation and registration of building consent authorities, accreditation of dam owners, and product certification.

Part 4 (and Schedule 3): Covers matters relating to the licensing and disciplining of building practitioners.

Part 5 (and Schedule 4): Describes miscellaneous matters, including offences and criminal proceedings, implied terms of contracts, regulation-making powers, amendments to other enactments and the repeal of the former Act, and the transitional Provisions from the former Act to the Building Act.

2.2 Building Regulations

Building Regulations are made under and in accordance with the Building Act.

A number of regulations have been made under the Building Act. Currently (as at May 2007) there are seven sets of regulations.

1. **Building Regulations 1992**, made under the former Act and which include the Building Code. These regulations have been amended by the Building (Forms) Regulations 2004 so that only certain parts remain in force. Parts still in force are: Schedule 1 (Building Code), Regulation 3, Forms 16 & 17 (and Regulation 4 and Schedule 2 where they relate to these forms).
2. **Building (Forms) Regulations 2004**, as amended by the Building (Forms) Amendment Regulations 2005, which prescribes forms to be used under the Building Act.
3. **Building (Specified Systems, Change the Use, and Earthquake-prone Buildings) Regulations 2005**, as amended by the Building (Specified Systems, Change the Use, and Earthquake-Prone Buildings) Amendment Regulations 2005. These regulations outline and define the following terms.
 - Specified systems – the building systems that must be listed on compliance schedules and are subject to specific inspection and maintenance procedures. Schedule 1 provides the list of specified systems.
 - Change the use – to determine when a change in a building's use will require upgrading to meet certain requirements of the Building Act. Schedule 2 determines the use of all or parts of buildings.
 - Moderate earthquake – to define a moderate earthquake in relation to a building.
4. **Building (Fee for Determinations) Regulations 2005**
5. **Building Levy Order 2005**
6. **Building (Accreditation of Building**

Consent Authorities) Regulations 2006

7. **Building (Consent Authority Accreditation Fees) Regulations 2007**
8. **Building (Designation of Building work Licence Classes) Order 2007**
9. **Building (Design Work Declared to be Building Work) Order 2007**
10. **Building Practitioners (Licensing Fees and Levy) Regulations 2007**
11. **Building (Registration of Building Consent Authorities) Regulations 2007**
12. **Building (Infringement Offences, Fees, and Forms) Regulations 2007**
13. **Building Practitioners (Register of Licensed Building Practitioners) Regulations 2008**
14. **Building (Dam Safety) Regulations 2008**
15. **Building Practitioners (Complaints and Disciplinary Procedures) Regulations 2008**
16. **Building (Product Certification) Regulations 2008**
17. **Building (Building Consent Authority Transition) Order 2008**
18. **Building (National Multiple-use Approval) Regulations 2009**
19. **Building (Minor Variations) Regulations 2009**
20. **Building (Designation of Building Work Licensing Classes) Order 2010**
21. **Building Practitioners (Licensing Fees and Levy) Regulations 2010**
22. **Building Practitioners (Register of Licensed Building Practitioners) Regulations 2010**
23. **Canterbury Earthquake (Building Act) order 2010**
24. **Building (National Multiple-use Approval) Regulations 2011**

Note: these regulations can be found at www.legislation.govt.nz

Amend 11
Sep 2010

Amend 12
Oct 2011

2.3 The New Zealand Building Code

The Building Code is contained in Schedule 1 of the Building Regulations 1992. The Building Code contains compulsory rules for all new building work.

2.3.1 Content

The Building Code sets out performance criteria that building work must meet. It covers aspects such as structural stability, fire safety, access, moisture control, durability, services and facilities, and energy efficiency.

The Building Code does not prescribe how work should be done, but states how completed building work and its parts must perform.

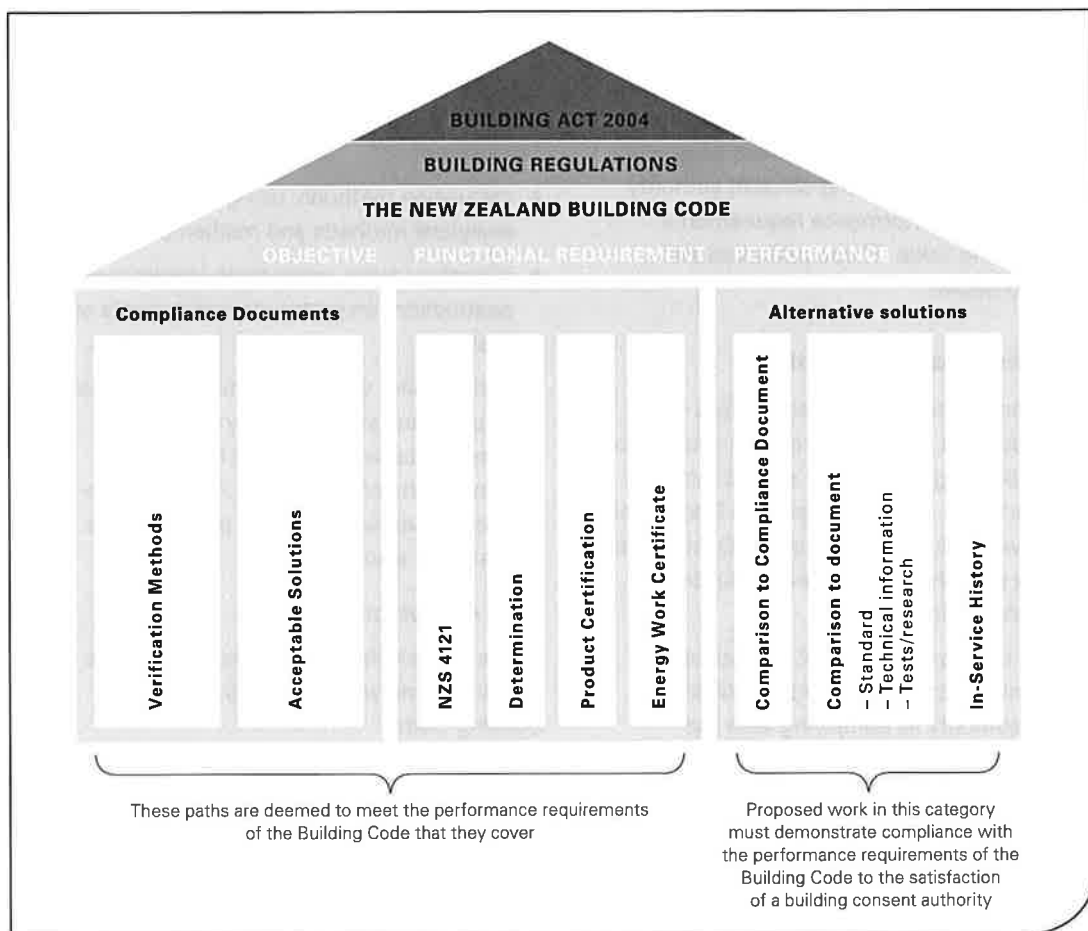
An advantage of a performance-based Building Code is flexibility. It contains no prescriptive requirements stipulating that certain products or designs must be used. This flexibility allows developments and innovation in building design, technology and systems.

2.3.2 Structure

The Building Code consists of two preliminary clauses and 35 technical clauses. Each technical clause has three levels that describe the requirements for the clause and is listed below.

1. **Objective** Social objectives the building must achieve.
2. **Functional requirement** Functions the building must perform to meet the Objective.
3. **Performance** The performance criteria the building must achieve. By meeting the performance criteria, the Objective and Functional requirement can be achieved.

Amend 11
Sep 2010



3.0 COMPLIANCE PATHS

Compliance with the Building Code can be demonstrated using various pathways. Understanding the New Zealand building control framework will help a building consent applicant decide which path is most suitable when designing and constructing building work.

The diagram below illustrates the hierarchy of New Zealand building controls, including the various compliance paths.

The top three tiers of the pyramid (the Building Act and Building Regulations) show mandatory building legislation that must be followed, as explained in the previous section.

The rest of the diagram shows various paths that may be used to demonstrate compliance with the Building Code. Compliance with the Building Code must be demonstrated using one or more of the paths. The applicant can choose which path(s) to follow.

With the exception of **alternative solutions**, the paths illustrated on the previous page must be accepted by the building consent authority as meeting the performance requirements of the Building Code. These pathways are discussed below.

3.1 Compliance Documents

Compliance Documents provide details for construction that, if followed, result in compliance with the Building Code. They are published by the Department. (Note: Compliance Documents were previously known as Approved Documents, and were published by the former Building Industry Authority.)

A design that complies with Compliance Documents must be accepted by a building consent authority as complying with the Building Code.

There is one Compliance Document for each of the 35 technical clauses in the Building Code. Each Compliance Document contains at least a Verification Method or an Acceptable Solution, and usually has both. However, some Compliance Documents have more than one Verification Method or Acceptable Solution.

For example, the Compliance Document for Clause B1 of the Building Code has two Verification Methods and three Acceptable Solutions.

Verification Methods and Acceptable Solutions are usually referred to by their Building Code clauses and unique identification numbers. Some examples are listed below.

- The Acceptable Solutions for Clause E2 **External Moisture** are known as **E2/AS1**, **E2/AS2** and **E2/AS3**.
- The Acceptable Solution for Clause G4 **Ventilation** is known as **G4/AS1**.
- The Acceptable Solution for Clause G1 **Personal Hygiene** is known as **G1/AS1**.
- The Verification Methods for Clause B1 **Structure** are known as **B1/VM1** and **B1/VM4**.

Amend 11
Sep 2010

Amend 12
Oct 2011

Amend 11
Sep 2010

3.1.1 Verification Methods

Verification Methods are tests or calculation methods that prescribe one way to comply with the Building Code. Verification Methods can include:

- calculation methods: using recognised analytical methods and mathematical models
- laboratory tests: using tests (sometimes to destruction) on prototype components and systems
- tests-in-situ: which may involve examination of plans and verification by test, where compliance with specified numbers, dimensions or locations is required (non-destructive tests, such as pipe pressure tests, are also included).

3.1.2 Acceptable Solutions

These are simple step-by-step instructions that show one way to comply with the Building Code.

3.2 Product certification

The Building Act contains provisions for a voluntary product certification scheme that will enable product manufacturers to have their products certified as meeting nominated Performance requirements of the Building Code.

Building products or methods that are used in accordance with a product certificate as provided by section 269 of the Building Act must be accepted as complying with the Building Code.

3.3 Energy work certificate

Energy work is defined as gasfitting work or prescribed electrical work. An energy work certificate certifies that energy work complies with either the Electricity Act 1992 or the Gas Act 1992.

An energy work certificate must be accepted as establishing compliance with the relevant Performance requirements of the Building Code.

3.4 New Zealand Standard NZS 4121

Section 119 of the Building Act specifies that NZS 4121, the code of practice for design for access and use of buildings by persons with disabilities (and any modification of that Standard), is to be taken as a Compliance Document.

3.5 Determinations

A determination is a binding decision made by the Department. It provides a way of solving disputes or answering questions relating to the Building Code and territorial authority/building consent authority/regional authority decisions under the Building Act.

A range of matters can be determined, including:

- whether a building or building work complies with the Building Code
- a building consent authority's decision on a building consent, a notice to fix, a code compliance certificate (CCC) or a compliance schedule
- a territorial authority's decision to issue a building consent subject to a waiver or modification
- a territorial authority's decision on a certificate of acceptance, a compliance schedule, a notice to fix, or a certificate for public use
- a regional authority's or territorial authority's exercise or failure to exercise its powers under the Building Act.

3.6 Alternative solutions

An alternative solution is a building solution that differs, in part or wholly, from the solutions offered by the Compliance Documents (an Acceptable Solution or Verification Method), but achieves compliance with the performance requirements of the Building Code to the satisfaction of the building consent authority.

There may be a number of reasons for the use of an alternative solution.

- There may not be a Compliance Document for the proposed construction, for example, if no Compliance Document is available for on-site effluent disposal.
- The building work may incorporate unusual design features that fall outside the scope of a Compliance Document.

Whatever the reason for using an alternative solution, the Building Code, being performance-based, allows for innovation and applicants have the freedom to propose an innovative solution. Refer to 2.3 'The New Zealand Building Code'.

3.7 Producer statements

A producer statement is a statement supplied by or on behalf of an applicant for a building consent, or by or on behalf of a person who has been granted a building consent. It is a statement that certain work will be, or has been, carried out in accordance with certain technical specifications.

Producer statements were introduced by the former Act and are no longer expressly referred to in the Building Act. A building consent authority may, at their discretion, accept and consider a producer statement as part of the plans or specifications for a building consent. This will assist the building consent authority in deciding whether it is satisfied on reasonable grounds the provisions of the Building Code will be met if the building work is completed in accordance with the plans and specifications. A building consent authority should have a formal procedure or policy in place for the use and consideration of producer statements, especially if a producer statement(s) will be required to prove building work complies with a building consent.

4.0 THE PARTIES AND THEIR RESPONSIBILITIES

Five principal parties are responsible for ensuring that buildings are safe and sanitary in line with the Building Act.

4.1 The Department of Building and Housing (the Department)

The Department has a range of statutory responsibilities for building and housing, and administers New Zealand's building legislation. The Department's building control functions include:

- advising the Minister for Building and Construction on matters relating to building control
- administering and reviewing the Building Code
- producing and maintaining Compliance Documents that specify prescriptive methods as a means of complying with the Building Code
- providing information, guidance, and advice on building controls to all sectors of the building industry and consumers
- implementing, administering and monitoring a system of regulatory controls for a vibrant sector with skilled building professionals
- making determinations, or technical rulings, on matters of interpretation, doubt or dispute.

4.2 Territorial authorities

Territorial authorities are responsible for enforcing the Building Act, Regulations and the Building Code in their areas of jurisdiction.

They are responsible for:

- gaining accreditation as a building consent authority
- registering as a building consent authority
- performing the functions of a building consent authority

- issuing project information memoranda
- granting waivers or modifications of the Building Code (not including waivers or modifications relating to access and facilities for people with disabilities)
- issuing certificates of acceptance
- issuing certificates for public use
- determining the extent to which buildings must comply with the Building Code if they are altered, or their use is changed or where there is a specified intended life change
- enforcing the provisions relating to annual building warrants of fitness
- issuing certain notices provided for under the Building Act
- keeping records
- ensuring dangerous, insanitary and earthquake prone buildings are identified and appropriate action taken to remove any danger or insanitary condition
- amending compliance schedules
- carrying out other functions and duties specified in the Building Act.

4.3 Building consent authorities

Building consent authorities are responsible for:

- issuing building consents
- inspecting building work for which they granted a building consent
- issuing notices to fix
- issuing code compliance certificates
- issuing compliance schedules and amending them where the specified systems are affected by building work
- carrying out other functions and duties specified in the Building Act.

4.4 Regional authorities

Regional authorities are responsible for:

- performing the functions of a building consent authority to the extent that those functions relate to dams
- considering and approving dam classifications
- considering and approving dam safety assurance programmes
- administering the Building Act, relating to dam classifications, dam safety assurance programmes and dam compliance certificates
- enforcing provisions of the Building Code and the Building Act and regulations that relate to dams
- adopting a policy on dangerous dams.

4.5 Building owners

Building owners are responsible for:

- detailing work proposals on plans and specifications, including proposals for the inspection and routine maintenance of the specified systems for the purposes of the compliance schedule (if applicable)
- applying for building consents (and amendments to building consents) and project information memoranda
- constructing buildings in accordance with the 'approved plans and specifications'
- organising inspections at given stages as building work progresses
- collecting energy work certificates
- applying for a code compliance certificate as soon as any work carried out under a building consent granted to them is completed
- maintaining buildings in a safe and sanitary manner
- ensuring any specified systems in their building are performing and will continue

to perform to the performance standards

- supplying the annual building warrant of fitness, if applicable
- notifying the territorial authority if a change of use, extension of life, or subdivision is proposed
- paying any fees as required by the Building Act.

4.6 Licensed building practitioners

The Building Act set up a licensed building practitioners (LBP) scheme to promote, recognise and support professional skills and behaviour in the building industry. The scheme has seven licence classes covering designers, site supervisors and trades people, such as carpenters, roofers, plasterers and bricklayers.

To become licensed, building practitioners must show they meet the standard for the licence class appropriate for them. Details of LBPs are held on a public register at www.dbh.govt.nz/lbp-register

Once licensed, LBPs are responsible for notifying territorial authorities of breaches of building consents.

From March 2012, it is expected that restricted building work on houses and small-medium sized apartment buildings will only be able to be carried out or supervised by LBPs. Restricted building work is design and building work that is critical to the integrity of a house or small-medium sized apartment building. It will cover aspects of the primary structure, external moisture management and fire design.

From March 2012:

- any plans and specifications containing restricted building work (relating to design work) must be accompanied by a memorandum issued by the LBP who carried out or supervised the design work, stating that the design work complies with the Building Code

Amend 11
Sep 2010

- if an application for a building consent relates to restricted building work, the names of the LBPs carrying out or supervising that work must be given to the building consent authority in the application (if known) or once the work commences, or when the application for the code compliance certificate is made.

The most up-to-date information on the LBP scheme is at www.dbh.govt.nz/lbp

Amend 11
Sep 2010

4.7 Past building control parties

4.7.1 The Building Industry Authority

The Building Industry Authority (the Authority) was a Crown entity, established under the former Act as the sole regulatory authority for building controls in New Zealand. The introduction of the Building Act 2004 has seen the dissolution of the Authority and transfer of its responsibilities to the Department.

4.7.2 Building certifier

A building certifier was a person approved by the Authority under the former Act to issue building certificates with respect to specific provisions of the Building Code. A building certifier may have been employed by a building owner as an alternative to using the territorial authority for checking technical proposals and performing inspections. Building certifiers are not provided for under the Building Act except for certain transitional arrangements.

5.0 BUILDING COMPLIANCE PROVISIONS

5.1 Project information memoranda (sections 31 to 39)

A project information memorandum (PIM) provides information known to the territorial authority/regional authority about land, and requirements of the Building Act and other Acts that might be relevant to proposed building work. A PIM is specific to the site and project.

A PIM is a legal document and may have a notice attached to it requiring the owner to obtain other approvals or consents required by other legislation, such as the Resource

Management Act 1991, prior to any work commencing on the project. For example, a PIM might include the fact that the height of a building may contravene a rule in the District Plan, meaning that before work commences, a separate resource consent is required from the territorial authority planning unit.

An application for a building consent is deemed to include an application for a PIM, unless one has been previously issued for the project and this is supplied with the building consent application. In most cases, PIMs and building consents are applied for in a single application. They will be processed as separate applications, but may be issued separately or jointly.

If the application for a PIM affects a registered historic place, historic area, wahi tapu, or wahi tapu area, and a PIM has not been issued for the building work to which the application applies, then the territorial authority must notify the New Zealand Historic Places Trust within five days after receiving the application.

If the territorial authority considers a development contribution under the Local Government Act 2002 is payable by the owner, it may attach a notice (Form 3) that advises the applicant that a code compliance certificate will not be issued until the development contribution is paid.

5.2 Building consents (sections 40 to 52)

A building consent is the formal approval, under section 49 of the Building Act, permitting an applicant to undertake building work in accordance with the plans and specifications approved by the building consent authority. Building work is the construction, alteration, demolition or removal of a building and includes sitework.

A person cannot carry out building work except in accordance with a building consent. There are some exemptions (see sections 41 and 43 and Schedule 1 of the Building Act), but section 17 still requires building work to be carried out in accordance with the Building Code, even if no building consent is required.

5.2.1 Alterations (Section 112)

Where proposed building work involves an alteration to an existing building, the consent must not be granted unless the building consent authority is satisfied that all new building work complies with the Building Code and:

- the altered building will comply as nearly as is reasonably practicable with the Building Code provisions for means of escape from fire and access and facilities for people with disabilities, and
- the altered building will continue to comply with the other provisions of the Building Code to at least the same extent as before the alteration.

However, a territorial authority may allow the alteration of an existing building without complying with provisions of the Building Code specified by the territorial authority, if the territorial authority is satisfied that:

- if the building were required to comply with the relevant provisions of the Building Code, the alterations would not take place, and
- the alteration will result in improvements to attributes of the building that relate to means of escape from fire or access and facilities for persons with disabilities, and
- the improvements mentioned above outweigh any detriment that is likely to arise as a result of the building not complying with the relevant provisions of the Building Code.

5.2.2 Change of use (sections 114 and 115)

Uses of buildings are defined in Schedule 2 of the Building (Specified Systems, Change the Use, and Earthquake-Prone Buildings) Regulations 2005.

A change of use arises when two criteria are met. The first criterion is that a building's use must change from one use in Schedule 2 to a different use in Schedule 2. The second criterion is the result of that change (first criterion) means the requirements for compliance with the Building Code for the new use are additional to, or more onerous than, the requirements for the old use.

See Regulations 5 and 6 of the Building (Specified Systems, Change the Use, and Earthquake-Prone Buildings) Regulations 2005.

An owner of a building must give written notice to the territorial authority/regional authority if they propose to change the use of a building.

Where the owner proposes to change the use of a building to one or more household units, where household units did not exist before, they must obtain written notice from the territorial authority. This must state that the territorial authority is satisfied, on reasonable grounds, that the building, in its new use, will comply as nearly as is reasonably practicable, with the Building Code in all respects (usually through the issue of a building consent).

For any other change of use proposal, the owner must get written notice from the territorial authority/regional authority, stating that the authority is satisfied, on reasonable grounds, that the building, in its new use, will comply, as nearly as is reasonably practicable, with every provision of the Building Code that relates to either or both of the following matters:

- means of escape from fire, protection of other property, sanitary facilities, structural performance, and fire-rating performance
- access and facilities for people with disabilities (if this is a requirement under section 118 of the Building Act).

The territorial authority/regional authority must also be satisfied that the building will continue to comply with the other provisions of the Building Code to at least the same extent as before the change of use.

5.2.3 Extension of life (sections 114 and 116)

Where a building with a specified intended life is issued with a building consent that is subject to the condition that the building be altered before the end of its life, an 'extension of life' can be obtained.

An owner of a building must give written notice to the territorial authority/regional authority if it proposes to extend the life of a building.

The territorial authority/regional authority can only give its consent to the extension of life if it is satisfied that:

- the building has been altered in accordance with the original condition
- the alteration complies with section 112 of the Building Act (Alterations).

5.2.4 Subdivision (sections 114 and 116A)

An owner of a building must give written notice to the territorial authority if it proposes to subdivide land in a manner that affects a building.

The territorial authority can only issue a certificate under section 224(f) (relating to cross lease, company lease, and unit titles) of the Resource Management Act 1991 for the purpose of giving effect to a subdivision affecting a building or part of a building, if it is satisfied that the building will comply as nearly as reasonably practicable with every provision of the Building Code that relates to one or more of the following.

- Means of escape from fire
- Access and facilities for people with disabilities
- Protection of other property

The building must also continue to comply with other provisions of the Building Code to at least the same extent as it did before the application for subdivision was made.

5.2.5 Access for persons with disabilities (sections 117 to 120 and Schedule 2)

Any building (including parts of a building such as a driveway) that is open to the public, whether or not they are charged for entry, must have reasonable and adequate provision for access, parking and sanitary facilities for people with disabilities who may be expected to work or visit that building and carry out normal activities and processes in that building.

The most recent version of NZS 4121 Code of Practice for Design for Access and Use of Buildings by Persons with Disabilities is to be taken as a Compliance Document.

5.3 Code compliance certificate (sections 91 to 95)

A code compliance certificate (CCC) is a formal statement, issued under section 95 of the Building Act, which states that building work carried out under a building consent application complies with that building consent. A CCC provides assurance to the owner and subsequent property owners that the approved plans and specifications have been followed.

A CCC is not issued until all building work has been completed as per the plans and specifications submitted with the building consent application.

A CCC must be applied for after all building work carried out under a building consent granted to the owner is completed.

An application for a CCC where the building work was carried out under a consent granted under the former Act must be considered and determined as if the Building Act had not been passed. However, section 43(2) of the former Act must be read as if a CCC may only be issued if the territorial authority is satisfied that the building work complies with the Building Code that applied at the time the building consent was granted.

5.4 Certificates of acceptance (sections 96 to 99)

Certificates of acceptance were introduced by the Building Act. The certificate confirms that, to the extent an inspection was able to be carried out, the building work complies with the Building Code. A certificate of acceptance therefore has some similarities to a CCC in that it will provide some verification for a building owner, or future building owner, that all or part of the work is compliant.

A certificate of acceptance can be obtained in situations where:

- work has been done without a building consent when one should have been obtained
- a building consent authority or building certifier is unable or refuses to issue a CCC
- verification is required of urgent building work carried out under section 42 of the Building Act.

A certificate of acceptance can also be used in limited circumstances in relation to section 363B.

A certificate of acceptance is based on verification with the Building Code that was in place **at the time of application**. It is not based on what was in place at the time a building consent was granted, or should have been applied for, or when the work was actually carried out.

5.5 Notices to fix (sections 163 to 168)

A notice to fix is a statutory notice requiring a person to remedy a breach of the Building Act or Regulations under the Act. A notice to fix can be issued for all breaches of the Building Act, including non-complying building work, and for an incorrect building warrant of fitness or a compliance schedule that is not being properly complied with. A notice to fix can state that all or any building work must cease immediately.

A building consent authority, regional authority or a territorial authority must issue a notice to fix for any contravention of the Building Act and Building Regulations under section 164 of the Building Act. When a notice to fix has been issued by a building consent authority that is not a territorial authority or a regional authority, the matter is then handed to the territorial authority or regional authority to decide whether the notice has been complied with.

Some examples of where notices could be issued include:

- carrying out building work other than in accordance with a building consent
- displaying an incorrect building warrant of fitness
- changing the use of a building without notifying the territorial authority or regional authority.

5.6 Compliance schedules (sections 100 to 107)

A compliance schedule lists specified systems within a building. The compliance schedule for a building must identify which specified systems are present, the performance standards for those systems, and how those systems will be inspected and maintained to ensure they continue to function.

For more information on compliance schedules, see the Compliance Schedule Handbook.

5.7 Building warrants of fitness (sections 108 to 111)

A building warrant of fitness (BWof) is a statement supplied by a building owner, to the territorial authority confirming that the systems specified in the compliance schedule for their building have been maintained and checked in accordance with the compliance schedule for the previous 12 months, and will continue to perform as required. For more information on building warrants of fitness, see the Compliance Schedule Handbook.

5.8 Certificates for public use (section 363A)

A certificate for public use is a new safety provision under the Building Act. It is a tool that can be used to certify that premises or parts of premises affected by building work are safe to be used by the public. Certificates for public use can only be used where a building consent has been granted for the building work but no CCC has yet been issued. Certificates for public use do not relieve the owner of a building from the obligation to apply for a CCC after all the building work has been carried out.

5.9 Building certificate

A building certificate was a formal confirmation by a building certifier that specific aspects of a building would or do comply with the Building Code. A territorial authority was obliged to accept such a certificate. Building certificates were allowed for under the former Act, but are only included under the new Building Act as transitional allowances to phase them out.

Contents

	Page		Page
A General Provisions	19	G Services and Facilities	56
A1 Classified uses	19	G1 Personal hygiene	56
A2 Interpretation	21	G2 Laundering	57
B Stability	23	G3 Food preparation and prevention of contamination	58
B1 Structure	23	G4 Ventilation	60
B2 Durability	25	G5 Interior environment	61
C Fire Safety	27	G6 Airborne and impact sound	63
C1 Outbreak of fire	27	G7 Natural light	64
C2 Means of escape	29	G8 Artificial light	65
C3 Spread of fire	30	G9 Electricity	66
C4 Structural stability during fire	33	G10 Piped services	68
D Access	34	G11 Gas as an energy source	69
D1 Access routes	34	G12 Water supplies	70
D2 Mechanical installations for access	38	G13 Foul water	72
E Moisture	41	G14 Industrial liquid waste	74
E1 Surface water	41	G15 Solid waste	76
E2 External moisture	42	H Energy Efficiency	77
E3 Internal moisture	44	H1 Energy efficiency	77
F Safety of Users	45		
F1 Hazardous agents on site	45		
F2 Hazardous building materials	46		
F3 Hazardous substances and processes	47		
F4 Safety from falling	48		
F5 Construction and demolition hazards	49		
F6 Visibility in escape routes	52		
F7 Warning systems	54		
F8 Signs	55		

Amend 11
Sep 2010

Amend 11
Sep 2010

A General Provisions

CLAUSE A1—CLASSIFIED USES

1.0 EXPLANATION

1.0.1 For the purposes of this building code *buildings* are classified according to type, under seven categories.

1.0.2 A *building* with a given classified use may have one or more intended uses as defined in the Act.

2.0 HOUSING

2.0.1 Applies to *buildings* or use where there is self care and service (internal management). There are three types:

2.0.2 Detached Dwellings

Applies to a *building* or use where a group of people live as a single household or family. Examples: a holiday cottage, boarding house accommodating fewer than 6 people, dwelling or hut.

2.0.3 Multi-unit Dwelling

Applies to a *building* or use which contains more than one separate household or family. Examples: an attached dwelling, flat or multi-unit apartment.

2.0.4 Group Dwelling

Applies to a *building* or use where groups of people live as one large extended family. Examples: within a commune or marae.

3.0 COMMUNAL RESIDENTIAL

3.0.1 Applies to *buildings* or use where assistance or care is extended to the *principal users*. There are two types:

3.0.2 Community Service

Applies to a residential *building* or use where limited assistance or care is extended to the *principal users*. Examples: a boarding house, hall of residence, holiday cabin, [backcountry hut,] hostel, hotel, motel, nurses' home, retirement village, time-share accommodation, a work camp, or camping ground.

3.0.3 Community Care

Applies to a residential *building* or use where a large degree of assistance or care is extended to the *principal users*. There are two types:

(a) **Unrestrained**; where the *principal users* are free to come and go.

Examples: a hospital, an old people's home or a health camp.

(b) **Restrained**; where the *principal users* are legally or physically constrained in their movements. Examples: a borstal or drug rehabilitation centre, an old people's home where substantial care is extended, a prison or hospital.

4.0 COMMUNAL NON-RESIDENTIAL

4.0.1 Applies to a *building* or use being a meeting place for people where care and service is provided by people other than the *principal users*. There are two types:

4.0.2 Assembly Service

Applies to a *building* or use where limited care and service is provided.

Examples: a church, cinema, clubroom, hall, museum, public swimming pool, stadium, theatre, or whare runanga (the assembly house).

Schedule 1 clause A1 3.0.2: amended, on 31 October 2008, by regulation 4 of the Building (Building Code: Backcountry Huts) Amendment Regulations 2008 (SR 2008/358).

CLAUSE A1—CLASSIFIED USES (continued)**4.0.3 Assembly Care**

Applies to a *building* or use where a large degree of care and service is provided.

Examples: an [early childhood education and care centre], college, day care institution, centre for handicapped persons, kindergarten, school or university.

5.0 COMMERCIAL

5.0.1 Applies to a *building* or use in which any natural resources, goods, services or money are either developed, sold, exchanged or stored. Examples: an amusement park, auction room, bank, car-park, catering facility, coffee bar, computer centre, fire station, funeral parlour, hairdresser, library, office (commercial or government), police station, post office, public laundry, radio station, restaurant, service station, shop, showroom, storage facility, television station or transport terminal.

6.0 INDUSTRIAL

6.0.1 Applies to a *building* or use where people use material and physical effort to:

- (a) extract or convert natural resources,
- (b) produce goods or energy from natural or converted resources,
- (c) repair goods, or
- (d) store goods (ensuing from the industrial process).

Examples: an agricultural building, agricultural processing facility, aircraft hanger, factory, power station, sewage treatment works, warehouse or utility.

7.0 OUTBUILDINGS

7.0.1 Applies to a *building* or use which may be included within each classified use but are not intended for human habitation, and are accessory to the principal use of associated *buildings*. Examples: a carport, farm *building*, garage, greenhouse, machinery room, private swimming pool, public toilet, or shed.

8.0 ANCILLARY

8.0.1 Applies to a *building* or use not for human habitation and which may be exempted from some amenity provisions, but which are required to comply with structural and safety-related aspects of the *building code*. Examples: a bridge, derrick, fence, free standing outdoor fireplace, jetty, mast, path, platform, pylon, retaining wall, tank, tunnel or dam.

Schedule 1 clause A1 4.0.3: amended, on 1 December 2008, by section 60(2) of the Education Amendment Act 2006 (2006 No 19).

CLAUSE A2—INTERPRETATION

This Clause of the New Zealand Building Code lists defined words used within the Code.

Those definitions, plus defined word or terms used in the Compliance Documents, are included in the section on definitions in this Handbook.

B Stability

CLAUSE B1—STRUCTURE

Provisions

OBJECTIVE

B1.1 The objective of this provision is to:

- (a) Safeguard people from injury caused by structural failure,
- (b) Safeguard people from loss of *amenity* caused by structural behaviour, and
- (c) Protect other property from physical damage caused by structural failure.

FUNCTIONAL REQUIREMENT

B1.2 *Buildings, building elements and sitework* shall withstand the combination of loads that they are likely to experience during *construction* or *alteration* and throughout their lives.

PERFORMANCE

B1.3.1 *Buildings, building elements and sitework* shall have a low probability of rupturing, becoming unstable, losing equilibrium, or collapsing during *construction* or *alteration* and throughout their lives.

B1.3.2 *Buildings, building elements and sitework* shall have a low probability of causing loss of *amenity* through undue deformation, vibratory response, degradation, or other physical characteristics throughout their lives, or during *construction* or *alteration* when the *building* is in use.

B1.3.3 Account shall be taken of all physical conditions likely to affect the stability of *buildings, building elements and sitework*, including:

- (a) Self-weight,
- (b) Imposed gravity loads arising from use,
- (c) Temperature,
- (d) Earth pressure,
- (e) Water and other liquids,
- (f) Earthquake,
- (g) Snow,
- (h) Wind,
- (i) *Fire*,

Limits on application

CLAUSE B1—STRUCTURE (continued)

Provisions	Limits on application
<ul style="list-style-type: none"> (j) Impact, (k) Explosion, (l) Reversing or fluctuating effects, (m) Differential movement, (n) Vegetation, (o) Adverse effects due to insufficient separation from other <i>buildings</i>, (p) Influence of equipment, services, non-structural elements and contents, (q) Time dependent effects including creep and shrinkage, and (r) Removal of support. 	
<p>B1.3.4 Due allowance shall be made for:</p> <ul style="list-style-type: none"> (a) The consequences of failure, (b) The intended use of the <i>building</i>, (c) Effects of uncertainties resulting from <i>construction</i> activities, or the sequence in which <i>construction</i> activities occur, (d) Variation in the properties of materials and the characteristics of the site, and (e) Accuracy limitations inherent in the methods used to predict the stability of <i>buildings</i>. 	
<p>B1.3.5 The demolition of <i>buildings</i> shall be carried out in a way that avoids the likelihood of premature collapse.</p>	
<p>B1.3.6 <i>Sitework</i>, where necessary, shall be carried out to:</p> <ul style="list-style-type: none"> (a) Provide stability for <i>construction</i> on the site, and (b) Avoid the likelihood of damage to <i>other property</i>. 	
<p>B1.3.7 Any <i>sitework</i> and associated supports shall take account of the effects of:</p> <ul style="list-style-type: none"> (a) Changes in ground water level, (b) Water, weather and vegetation, and (c) Ground loss and slumping. 	

CLAUSE B2—DURABILITY**Provisions****OBJECTIVE**

B2.1 The objective of this provision is to ensure that a *building* will throughout its life continue to satisfy the other objectives of this code.

FUNCTIONAL REQUIREMENT

B2.2 *Building materials, components and construction methods shall be sufficiently durable to ensure that the building, without reconstruction or major renovation, satisfies the other functional requirements of this code throughout the life of the building.*

PERFORMANCE

B2.3.1 *Building elements must, with only normal maintenance, continue to satisfy the performance requirements of this code for the lesser of the specified intended life of the building, if stated, or:*

(a) The life of the *building*, being not less than 50 years, if:

- (i) Those *building elements* (including floors, walls, and fixings) provide structural stability to the *building*, or
- (ii) Those *building elements* are difficult to access or replace, or
- (iii) Failure of those *building elements* to comply with the *building code* would go undetected during both normal use and maintenance of the building

(b) 15 years if:

- (i) Those *building elements* (including the *building* envelope, exposed plumbing in the subfloor space, and in-built chimneys and flues) are moderately difficult to access or replace, or
- (ii) Failure of those *building elements* to comply with the *building code* would go undetected during normal use of the *building*, but would be easily detected during normal maintenance.

Limits on application

Performance B2.3.1 applies from the time of issue of the applicable *code compliance certificate*. *Building elements* are not required to satisfy a durability performance which exceeds the *specified intended life* of the *building*

Clause B2.3 Schedule was substituted, as from 11 September 1997, by regulation 2 Building Amendment Regulations 1997 (SR 1997/156).

CLAUSE B2—DURABILITY (continued)**Provisions**

(c) 5 years if:

(i) The *building elements* (including services, linings, renewable protective coatings, and *fixtures*) are easy to access and replace, and

(ii) Failure of those *building elements* to comply with the *building code* would be easily detected during normal use of the *building*.

B2.3.2 Individual *building elements* which are components of a *building system* and are difficult to access or replace must either:

(a) All have the same durability, or

(b) Be installed in a manner that permits the replacement of *building elements* of lesser durability without removing *building elements* that have greater durability and are not specifically designed for removal and replacement.

Limits on application

C Fire Safety

CLAUSE C1—OUTBREAK OF FIRE

Provisions

OBJECTIVE

C1.1 The objective of this provision is to safeguard people from injury or illness caused by *fire*.

FUNCTIONAL REQUIREMENT

C1.2 In *buildings* fixed appliances using the controlled combustion of solid, liquid or gaseous fuel, shall be installed in a way which reduces the likelihood of *fire*.

PERFORMANCE

C1.3.1 Fixed appliances and services shall be installed so as to avoid the accumulation of gases within the installation and in *building* spaces, where heat or ignition could cause uncontrolled combustion or explosion.

C1.3.2 Fixed appliances shall be installed in a manner that does not raise the temperature of any *building element* by heat transfer or concentration to a level that would adversely affect its physical or mechanical properties or function

Limits on application

CLAUSE C2—MEANS OF ESCAPE**Provisions****OBJECTIVE**

C2.1 The objective of this provision is to:

- (a) Safeguard people from injury or illness from a *fire* while escaping to a *safe place*, and
- (b) Facilitate *fire* rescue operations.

FUNCTIONAL REQUIREMENT

C2.2 Buildings shall be provided with [*means of escape from fire*] which:

- (a) Give people *adequate* time to reach a *safe place* without being overcome by the effects of *fire*, and
- (b) Give fire service personnel *adequate* time to undertake rescue operations.

PERFORMANCE

C2.3.1 The number of *open paths* available to each person escaping to an *exitway* or *final exit* shall be appropriate to:

- (a) The *travel distance*.
- (b) The number of occupants,
- (c) The *fire hazard*, and
- (d) The *fire safety systems* installed in the *firecell*.

C2.3.2 The number of *exitways* or *final exits* available to each person shall be appropriate to:

- (a) The *open path travel distance*,
- (b) The *building height*,
- (c) The number of occupants,
- (d) The *fire hazard*, and
- (e) The *fire safety systems* installed in the *building*.

C2.3.3 *Escape routes* shall be:

- (a) Of *adequate* size for the number of occupants,
- (b) Free of obstruction in the direction of escape,

Limits on application

[Performance C2.3.3(b) must not prevent a door that forms part of an *escape route* from being locked if the person who locks it is satisfied that no one is in that part of the *building* served by the *escape route* and that no one is likely to enter that part of the *building*, except in an emergency, without unlocking that door.]

Clause C2.2 was amended, as from 3 January 2002, by regulation 3(1) Building Amendment Regulations 2001 (SR 2001/374), by substituting the words "*means of escape from fire*" for the words "*escape routes*".

Clause C2.3.3(b) was amended, as from 3 January 2002, by regulation 3(2) Building Amendment Regulations 2001 (SR 2001/374), by inserting, adjacent to clause C2.3.3(b) in the column headed "**Limits on application**", the words "*Performance C2.3.3(b) must not prevent a door that forms part of an escape route from being locked if the person who locks it is satisfied that no one is in that part of the building served by the escape route and that no one is likely to enter that part of the building, except in an emergency, without unlocking that door.*"

CLAUSE C2—MEANS OF ESCAPE (continued)**Provisions**

- (c) Of length appropriate to the mobility of the people using them,
- (d) Resistant to the spread of *fire* as required by Clause C3 "Spread of Fire",
- (e) Easy to find as required by Clause F8 "Signs",
- [(f) Provided with systems for visibility during failure of the main lighting, as required by Clause F6 "Visibility in *escape routes*", and]
- (g) Easy and safe to use as required by Clause D1.3.3 "Access Routes".

Limits on application

Clause C2.3.3(f) was substituted, as from 21 June 2007, by regulation 6(3) Building Amendment Regulations 2007 (SR 2007/124).

CLAUSE C3—SPREAD OF FIRE**Provisions****OBJECTIVE**

C3.1 The objective of this provision is to:

- (a) Safeguard people from injury or illness when evacuating a *building* during *fire*.
- (b) Provide protection to fire service personnel during firefighting operations.
- (c) Protect adjacent *household units*[, *other residential units*,] and *other property* from the effects of *fire*.
- (d) Safeguard the environment from adverse effects of *fire*.

FUNCTIONAL REQUIREMENT

C3.2 *Buildings* shall be provided with safeguards against *fire* spread so that:

- (a) Occupants have time to escape to a *safe place* without being overcome by the effects of *fire*,
- (b) Firefighters may undertake rescue operations and protect property,
- (c) Adjacent *household units*[, *other residential units*,] and *other property* are protected from damage, and
- (d) Significant quantities of *hazardous substances* are not released to the environment during *fire*.

PERFORMANCE

C3.3.1 Interior surface finishes on walls, floors, ceilings and suspended *building elements*, shall resist the spread of *fire* and limit the generation of toxic gases, smoke and heat, to a degree appropriate to:

- (a) The *travel distance*,
- (b) The number of occupants,
- (c) The *fire hazard*, and
- (d) The active *fire safety systems* installed in the *building*.

Limits on application

Requirement C3.2(d) applies only to *buildings* where significant quantities of *hazardous substances* are stored or processed.

Clause C3.1(c) was amended, as from 3 January 2002, by regulation 3(3) Building Amendment Regulations 2001 (SR 2001/374), by inserting after the words "household units", the words "other residential units,".

CLAUSE C3—SPREAD OF FIRE (continued)**Provisions**

C3.3.2 *Fire separations* shall be provided within *buildings* to avoid the spread of fire and smoke to:

- (a) Other *firecells*,
- (b) Spaces intended for sleeping, and

(c) *Household units* within the same *building* or *adjacent buildings*.

[(d) *other property*.]

C3.3.3 *Fire separations* shall:

- (a) Where openings occur, be provided with *fire resisting closures* to maintain the *integrity* of the *fire separations* for an *adequate* time, and
- (b) Where penetrations occur, maintain the *fire resistance rating* of the *fire separation*.

C3.3.4 *Concealed spaces* and cavities within *buildings* shall be sealed and subdivided where necessary to inhibit the unseen spread of fire and smoke.

C3.3.5 *External walls* and roofs shall have resistance to the spread of fire, appropriate to the *fire load* within the *building* and to the proximity of other *household units*[, *other residential units*,] and *other property*.

C3.3.6 Automatic *fire suppression* systems shall be installed where people would otherwise be:

- (a) Unlikely to reach a safe place in *adequate* time because of the number of storeys in the *building*,
- (b) Required to remain within the *building* without proceeding directly to a *final exit*, or where the *evacuation time* is excessive,
- (c) Unlikely to reach a *safe place* due to confinement under institutional care because of mental or physical disability, illness or legal detention, and the *evacuation time* is excessive, or
- (d) At high risk due to the *fire load* and *fire hazard* within the *building*.

Limits on application

[Performance C3.3.2(b) does not apply to *Detached Dwellings* or within *household units* of *Multi-unit Dwellings*.]

Performance C3.3.4 shall not apply to *Detached Dwellings*.

Clause C3.2(c) was amended, as from 3 January 2002, by regulation 3(4) Building Amendment Regulations 2001 (SR 2001/374), by inserting after the words "*household units*", the words "*, other residential units,*".

Clause C3.3.2 was amended, as from 3 January 2002, by regulation 3(5) Building Amendment Regulations 2001 (SR 2001/374), by adding the following paragraph: "(d) *other property*." and repealing, adjacent to clause C3.3.2 in the column headed "*Limits on application*", the words "*Performance C3.3.2 shall not apply to Detached Dwellings, or within household units of Multi-unit Dwellings.*" and inserting, adjacent to clause C3.3.2(b) in the column headed "*Limits on application*", the words "*Performance C3.3.2(b) does not apply to Detached Dwellings or within household units of Multi-unit Dwellings.*"

Clause C3.3.5 was amended, as from 3 January 2002, by regulation 3(6) Building Amendment Regulations 2001 (SR 2001/374), by inserting after the words "*household units*", the words "*, other residential units,*".

CLAUSE C3—SPREAD OF FIRE (continued)**Provisions**

C3.3.7 Air conditioning and mechanical ventilation systems shall be constructed to avoid circulation of smoke and *fire* between *firecells*.

C3.3.8 Where an automatic smoke control system is installed, it shall be constructed to:

- (a) Avoid the spread of *fire* and smoke between *firecells*, and
- (b) Protect *escape routes* from smoke until the occupants have reached a *safe place*.

C3.3.9 The *fire safety systems* installed shall facilitate the specific needs of fire service personnel to:

- (a) Carry out rescue operations, and
- (b) Control the spread of *fire*.

C3.3.10 Environmental protection systems shall ensure a low probability of *hazardous substances* being released to:

- (a) Soils, vegetation or natural waters,
- (b) The atmosphere, and
- (c) *Sewers* or public *drains*.

Limits on application

[Performance C3.3.9 does not apply to *backcountry huts*.]

Performance C3.3.10 applies only to *buildings* where significant quantities of *hazardous substances* are stored or processed.

Schedule 1 clause C3.3.9: amended, on 31 October 2008, by regulation 6 of the Building (Building Code: Backcountry Huts) Amendment Regulations 2008 (SR 2008/358).

CLAUSE C4—STRUCTURAL STABILITY DURING FIRE

Provisions	Limits on application
<p>OBJECTIVE</p> <p>C4.1 The objective of this provision is to:</p> <ul style="list-style-type: none"> (a) Safeguard people from injury due to loss of structural stability during <i>fire</i>, and (b) Protect <i>household units</i> and <i>other property</i> from damage due to structural instability caused by <i>fire</i>. <p>FUNCTIONAL REQUIREMENT</p> <p>C4.2 <i>Buildings</i> shall be constructed to maintain structural stability during <i>fire</i> to:</p> <ul style="list-style-type: none"> (a) Allow people <i>adequate</i> time to evacuate safely, (b) Allow fire service personnel <i>adequate</i> time to undertake rescue and firefighting operations, and (c) Avoid collapse and consequential damage to adjacent <i>household units</i> or <i>other property</i>. <p>PERFORMANCE</p> <p>C4.3.1 Structural elements of <i>buildings</i> shall have <i>fire</i> resistance appropriate to the function of the elements, the <i>fire load</i>, the <i>fire intensity</i>, the <i>fire hazard</i>, the height of the <i>buildings</i> and the <i>fire</i> control facilities external to and within them.</p> <p>C4.3.2 Structural elements shall have a <i>fire</i> resistance of no less than that of any element to which they provide support within the same <i>firecell</i>.</p> <p>C4.3.3 Collapse of elements having lesser <i>fire</i> resistance shall not cause the consequential collapse of elements required to have a higher <i>fire</i> resistance.</p>	

D Access

CLAUSE D1—ACCESS ROUTES

Provisions

OBJECTIVE

D1.1 The objective of this provision is:

- (a) Safeguard people from injury during movement into, within and out of *buildings*,
- (b) Safeguard people from injury resulting from the movement of vehicles into, within and out of *buildings*, and
- (c) Ensure that *people with disabilities* are able to enter and carry out normal activities and functions within *buildings*.

FUNCTIONAL REQUIREMENT

D1.2.1 *Buildings* shall be provided with reasonable and adequate access to enable safe and easy movement of people.

D1.2.2 Where a *building* is provided with loading or parking spaces, they shall be constructed to permit safe and easy unloading and movement of vehicles, and to avoid conflict between vehicles and pedestrians.

PERFORMANCE

D1.3.1 *Access routes* shall enable people to:

- (a) Safely and easily approach the main entrance of *buildings* from the apron or construction edge of a *building*,
- (b) Enter *buildings*,
- (c) Move into spaces within *buildings* by such means as corridors, doors, stairs, ramps and lifts,
- (d) Manoeuvre and park cars, and
- (e) Manoeuvre and park delivery vehicles required to use the loading space.

D1.3.2 At least one *access route* shall have features to enable *people with disabilities* to:

- (a) Approach the *building* from the street boundary or, where required to be provided, the *building* car park,
- (b) Have access to the internal space served by the principal access, and
- (c) Have access to and within those spaces where they may be expected to work or visit, or which contain facilities for personal hygiene as required by Clause G1 "Personal Hygiene".

Limits on application

Objective D1.1(c) shall apply only to those *buildings* to which [section 47A of the Act] applies.

Requirement D1.2.1 shall not apply to *Ancillary buildings* or *Outbuildings*.

Performance D1.3.2 shall not apply to *Housing*, *Outbuildings*, [*backcountry huts*,] *Ancillary buildings*, and to *Industrial buildings* where no more than 10 people are employed.

Note: Section 47A is in the Building Act 1991. The equivalent section in the Building Act 2004 is section 118.

The limits on application to clause D1.1(c) were amended consequential on the Health Reforms (Transitional Provisions) Act 1993, as from 29 December 2000, by regulation 4(1) Building Amendment Regulations 2000 (SR 2000/119), by substituting the expression "section 47A of the Act" for the expression "section 25 of the Disabled Persons Community Welfare Act 1975".

Schedule 1 clause D1.3.2: amended, on 31 October 2008, by regulation 7 of the Building (Building Code: Backcountry Huts) Amendment Regulations 2008 (SR 2008/358).

CLAUSE D1—ACCESS ROUTES (continued)**Provisions****D1.3.3** Access routes shall:

- (a) Have *adequate* activity space,
- (b) Be free from dangerous obstructions and from any projections likely to cause an obstruction,
- (c) Have a safe cross fall, and safe slope in the direction of travel,
- (d) Have *adequate* slip-resistant walking surfaces under all conditions of normal use,
- (e) Include stairs to allow access to upper floors irrespective of whether an escalator or lift has been provided,
- (f) Have stair treads, and ladder treads or rungs which:
 - (i) provide *adequate* footing, and
 - (ii) have uniform rise within each flight and for consecutive flights,
- (g) Have stair treads with a leading edge that can be easily seen,
- (h) Have stair treads which prevent children falling through or becoming held fast between treads, where open risers are used,
- (i) Not contain isolated steps,
- (j) Have smooth, reachable and graspable *handrails* to provide support and to assist with movement along a stair or ladder,
- (k) Have *handrails* of *adequate* strength and rigidity as required by Clause B1 "Structure",
- (l) Have landings of appropriate dimensions and at appropriate intervals along a stair or ramp to prevent undue fatigue,
- (m) Have landings of appropriate dimensions where a door opens from or onto a stair, ramp or ladder so that the door does not create a hazard, and
- (n) Have any automatically controlled doors constructed to avoid the risk of people becoming caught or being struck by moving parts.

Limits on application

Performance D1.3.3(h) shall not apply within *Industrial buildings*, *Outbuildings* and *Ancillary buildings*.

Performance D1.3.3(i) shall not apply with *Detached Dwellings* or within *household units of Multi-unit Dwellings*, or to *Outbuildings* and *Ancillary buildings*.

Performance D1.3.3(j) shall not apply to isolated steps.

CLAUSE D1—ACCESS ROUTES (continued)**Provisions**

D1.3.4 An *accessible route*, in addition to the requirement of Clause D1.3.3, shall:

- (a) Be easy to find, as required by Clause F8 "Signs",
- (b) Have *adequate* activity space to enable a person in a wheelchair to negotiate the route while permitting an ambulant person to pass,
- (c) Include a lift complying with Clause D2 "Mechanical Installations for Access" to upper floors where:
 - (i) *buildings* are four or more storeys high,
 - (ii) *buildings* are three storeys high and have a total design occupancy of 50 or more persons on the two upper floors,
 - (iii) *buildings* are two storeys high and have a total design occupancy of 40 or more persons on the upper floor, or
 - (iv) an upper floor, irrespective of design occupancy, is to be used for the purposes of public reception areas of banks, central, regional and local government offices and facilities, hospitals, medical and dental surgeries and medical, paramedical and other primary health care centres,
- (d) Contain no thresholds or upstands forming a barrier to an unaided wheelchair user,
- (e) Have means to prevent the wheel of a wheelchair dropping over the side of the *accessible route*,
- (f) Have doors and related hardware which are easily used,
- (g) Not include spiral stairs, or stairs having open risers,
- (h) Have stair treads with leading edge which is rounded, and
- (i) Have *handrails* on both sides of the *accessible route* when the slope of the route exceeds 1 in 20. The *handrails* shall be continuous along both sides of the stair, ramp and landing except where the *handrail* is interrupted by a doorway.

Limits on application

CLAUSE D1—ACCESS ROUTES (continued)**Provisions**

D1.3.5 Vehicle spaces and circulation routes shall have:

- (a) Dimensions appropriate to the *intended use*,
- (b) Appropriate crossfall, and slope in the direction of travel,
- (c) *Adequate* queuing and circulation space, and
- (d) *Adequate* sight distances.

D1.3.6 Vehicle spaces for use by *people with disabilities*, shall, in addition to the requirements of Clause D1.3.5, be:

- (a) Provided in sufficient numbers,
- (b) Located to avoid conflict between vehicles and people using or moving to or from the space, and
- (c) Easy to find as required by Clause F8 Signs.

Limits on application

CLAUSE D2—MECHANICAL INSTALLATIONS FOR ACCESS

Provisions	Limits on application
<p>OBJECTIVE</p> <p>D2.1 The objective of this provision is to:</p> <ul style="list-style-type: none"> (a) Safeguard people from injury and loss of amenity while using mechanical installations for movement into, within and out of <i>buildings</i>, (b) Safeguard maintenance personnel from injury while servicing mechanical installations for access, and (c) Ensure that <i>people with disabilities</i> are able to carry out normal activities and processes within <i>buildings</i>. <p>FUNCTIONAL REQUIREMENT</p> <p>D2.2 Mechanical installations for access into, within and out of <i>buildings</i> shall provide for the safe and easy movement of people, and for the safety of maintenance personnel.</p> <p>PERFORMANCE</p> <p>D2.3.1 Mechanical installations for access shall:</p> <ul style="list-style-type: none"> (a) Move people safely, and stop and hold as required for the normal use of the installation, for all loads up to and including 25% in excess of the rated load, (b) Not produce excessive acceleration or deceleration, (c) Be constructed to avoid the likelihood of people falling, tripping, becoming caught, being able to touch or be struck by moving parts, sharp edges or projections, under both normal and reasonably foreseeable abnormal conditions of use, (d) Be constructed to prevent collision between components, or between components and the <i>building</i>, (e) Have a control system that ensures safe abnormal operation in the event of overloading or failure of any single component, and (f) Be capable of being isolated for inspection, testing and maintenance. 	<p>Objective D2.1(c) shall apply only to those <i>buildings</i> to which [section 47A of the Act] applies.</p>

Note: Section 47A is in the Building Act 1991. The equivalent section in the Building Act 2004 is section 118.

The limits on application to clause D2.1(c) were amended consequential on the Health Reforms (Transitional Provisions) Act 1993, as from 29 December 2000, by regulation 4(1) Building Amendment Regulations 2000 (SR 2000/119), by substituting the expression "section 47A of the Act" for the expression "section 25 of the Disabled Persons Community Welfare Act 1975".

CLAUSE D2—MECHANICAL INSTALLATIONS FOR ACCESS (continued)**Provisions**

D2.3.2 Mechanical installations for access shall be provided with:

- (a) *Adequate* control over normal use, to ensure people's safety throughout any operation involving starting, stopping or changing the direction of travel,
- (b) Notification of position, where people are fully enclosed and the installation serves more than two levels,
- (c) *Adequate* lighting and ventilation for both normal and emergency use, and
- (d) Signs as required by Clause F8 "Signs",

D2.3.3 Mechanical installations for access shall, for emergency purposes, be provided with a means of:

- (a) Calling outside help,
- (b) Releasing people safely,
- (c) Safeguarding people from exposure to *hazardous* situations, and
- (d) Allowing authorised personnel to override the normal running procedure and take exclusive control of the installation.

D2.3.4 Potentially dangerous equipment shall be located in spaces which:

- (a) Are secure from unauthorised entry and contain only equipment associated with the installation,
- (b) Are appropriately sized and suitably guarded to provide *adequate* safe working areas for maintenance personnel,
- (c) Are provided with *adequate* power and lighting for maintenance, and
- (d) Have an environment that ensures the safe operation of the equipment under all likely conditions of use.

Limits on application

Performance D2.3.3(d) shall not apply to installations travelling less than 15m vertically.

CLAUSE D2—MECHANICAL INSTALLATIONS FOR ACCESS (continued)**Provisions**

D2.3.5 Mechanical installations on *accessible routes* shall:

- (a) Where the passenger conveyor is manually controlled, provide:
 - (i) controls which are easily identifiable and easy to use,
 - (ii) *adequate* notification that the passenger conveyor has registered a summoning call, and
 - (iii) *adequate* notification that the passenger conveyor has arrived, and of its future direction of travel,
- (b) Where the passenger conveyor is fully enclosed and serves more than two levels, provide an *adequate* means of informing occupants of their location,
- (c) Where appropriate, have doors which:
 - (i) are power operated,
 - (ii) are readily distinguishable from their surroundings, and
 - (iii) where automatic, remain open sufficiently long to enable *people with disabilities* to pass through, and
- (d) Have *handrails* within the passenger conveyor.

Limits on application

E Moisture

CLAUSE E1—SURFACE WATER

Provisions

OBJECTIVE

E1.1 The objective of this provision is to:

- (a) Safeguard people from injury or illness, and *other property* from damage, caused by *surface water*, and
- (b) Protect the *outfalls* of drainage systems.

FUNCTIONAL REQUIREMENT

E1.2 *Buildings* and *sitework* shall be constructed in a way that protects people and *other property* from the adverse effects of *surface water*.

PERFORMANCE

E1.3.1 [Except as otherwise required under the Resource Management Act 1991 for the protection of other property, *surface water*], resulting from [an event] having a 10% probability of occurring annually and which is collected or concentrated by *buildings* or *sitework*, shall be disposed of in a way that avoids the likelihood of damage or nuisance to *other property*.

E1.3.2 *Surface water*, resulting from [an event] having a 2% probability of occurring annually, shall not enter *buildings*.

E1.3.3 Drainage systems for the disposal of *surface water* shall be constructed to:

- (a) Convey *surface water* to an appropriate *outfall* using gravity flow where possible,
- (b) Avoid the likelihood of blockages,
- (c) Avoid the likelihood of leakage, penetration by roots, or the entry of ground water where pipes or lined channels are used,
- (d) Provide reasonable access for maintenance and clearing blockages,
- (e) Avoid the likelihood of damage to any *outfall*, in a manner acceptable to the *network utility operator*, and
- (f) Avoid the likelihood of damage from superimposed loads or normal ground movements.

Limits on application

Performance E1.3.2 shall apply only to *Housing*, *Communal Residential* and *Communal Non-residential buildings*.

Clause E1.3.1 was amended, as from 22 December 1994, by regulation 3(2)(e) and (f) Building Regulations 1992, Amendment No 1 (SR 1994/263) by substituting the words "Except as otherwise required under the Resource Management Act 1991 for the protection of other property, surface water" for the words "Surface water".

Clause E1.3.1 was amended, as from 3 January 2002, by regulation 3(7) Building Amendment Regulations 2001 (SR 2001/374), by substituting the words "an event" for the words "a storm".

Clause E1.3.2 was amended, as from 3 January 2002, by regulation 3(8) Building Amendment Regulations 2001 (SR 2001/374), by substituting the words "an event" for the words "a storm".

[CLAUSE E2—EXTERNAL MOISTURE**Provisions****OBJECTIVE**

E2.1 The objective of this provision is to safeguard people from illness or injury that could result from external moisture entering the *building*.

FUNCTIONAL REQUIREMENT

E2.2 *Buildings* must be constructed to provide adequate resistance to penetration by, and the accumulation of, moisture from the outside.

PERFORMANCE

E2.3.1 Roofs must shed precipitated moisture. In locations subject to snowfalls, roofs must also shed melted snow.

E2.3.2 Roofs and exterior walls must prevent the penetration of water that could cause undue dampness, damage to *building elements*, or both.

E2.3.3 Walls, floors, and structural elements in contact with, or in close proximity to, the ground must not absorb or transmit moisture in quantities that could cause undue dampness, damage to *building elements*, or both.

E2.3.4 *Building elements* susceptible to damage must be protected from the adverse effects of moisture entering the space below suspended floors.

E2.3.5 *Concealed spaces* and cavities in *buildings* must be constructed in a way that prevents external moisture being accumulated or transferred and causing condensation, fungal growth, or the degradation of *building elements*.

E2.3.6 Excess moisture present at the completion of *construction* must be capable of being dissipated without permanent damage to *building elements*.

Limits on application

Requirement E2.2 does not apply to *buildings* (for example, certain bus shelters, and certain *buildings* used for horticulture or for equipment for washing motor vehicles automatically) if moisture from the outside penetrating them, or accumulating within them, or both, is unlikely to impair significantly all or any of their *amenity*, durability, and stability.

Clause E2 was substituted, as from 21 June 2007, by regulation 4 Building Amendment Regulations 2007 (SR 2007/124).

[CLAUSE E2—EXTERNAL MOISTURE (continued)]**Provisions**

E2.3.7 *Building elements* must be constructed in a way that makes due allowance for the following:

- (a) the consequences of failure:
- (b) the effects of uncertainties resulting from *construction* or from the sequence in which different aspects of *construction* occur:
- (c) variation in the properties of materials and in the characteristics of the site.

Limits on application

[CLAUSE E3—INTERNAL MOISTURE**Provisions****OBJECTIVE**

E3.1 The objective of this provision is to—

- (a) Safeguard people against illness, injury, or loss of *amenity* that could result from accumulation of internal moisture; and
- (b) Protect *household units* and other property from damage caused by free water from another *household unit* in the same *building*.

FUNCTIONAL REQUIREMENT

E3.2 *Buildings* must be constructed to avoid the likelihood of—

- (a) Fungal growth or the accumulation of contaminants on linings and other building elements; and
- (b) Free water overflow penetrating to an adjoining *household unit*; and
- (c) Damage to *building elements* caused by the presence of moisture.

PERFORMANCE

E3.3.1 An *adequate* combination of *thermal resistance*, ventilation, and space temperature must be provided to all *habitable spaces*, bathrooms, laundries, and other spaces where moisture may be generated or may accumulate.

E3.3.2 *Freewater* from accidental overflow from *sanitary fixtures* or *sanitary appliances* must be disposed of in a way that avoids loss of *amenity* or damage to household units or *other property*.

E3.3.3 Floor surfaces of any space containing *sanitary fixtures* or *sanitary appliances* must be *impervious* and easily cleaned.

E3.3.4 Wall surfaces adjacent to *sanitary fixtures* or *sanitary appliances* must be *impervious* and easily cleaned.

E3.3.5 Surfaces of *building elements* likely to be splashed or become contaminated in the course of the *intended use* of the *building*, must be *impervious* and easily cleaned.

E3.3.6 Surfaces of *building elements* likely to be splashed must be constructed in a way that prevents water splash from penetrating behind linings or into *concealed spaces*.

Limits on application

Performance E3.3.1 does not apply to *Communal Non-residential, Commercial, Industrial, Outbuildings, or Ancillary buildings*.

Clause E3 was substituted, as from 14 October 2004, by regulation 3 Building Amendment Regulations 2004 (SR 2004/317).

F Safety of Users

CLAUSE F1—HAZARDOUS AGENTS ON SITE

Provisions

OBJECTIVE

F1.1 The objective of this provision is to safeguard people from injury or illness caused by *hazardous agents* or *contaminants* on a site.

FUNCTIONAL REQUIREMENT

F1.2 *Buildings* shall be constructed to avoid the likelihood of people within the *building* being adversely affected by *hazardous agents* or *contaminants* on the site.

PERFORMANCE

F1.3.1 Sites shall be assessed to determine the presence and potential threat of any *hazardous agents* or *contaminants*.

F1.3.2 The likely effect of any *hazardous agent* or *contaminant* on people shall be determined taking account of:

- (a) The *intended use* of the *building*,
- (b) The nature, potency or toxicity of the *hazardous agent* or *contaminant*, and,
- (c) The protection afforded by the *building envelope* and *building systems*.

Limits on application

CLAUSE F2—HAZARDOUS BUILDING MATERIALS**Provisions****OBJECTIVE**

F2.1 The objective of this provision is to safeguard people from injury and illness caused by exposure to *hazardous building materials*.

FUNCTIONAL REQUIREMENT

F2.2 *Building materials* which are potentially *hazardous*, shall be used in ways that avoid undue risk to people.

PERFORMANCE

F2.3.1 The quantities of gas, liquid, radiation or solid particles emitted by materials used in the *construction of buildings*, shall not give rise to harmful concentrations at the surface of the material where the material is exposed, or in the atmosphere of any space.

F2.3.2 Transparent panels capable of being mistaken for an unimpeded path of travel shall be marked to make them visible.

F2.3.3 Glass or other brittle materials with which people are likely to come into contact shall:

- (a) If broken on impact, break in a way which is unlikely to cause injury, or
- (b) Resist a reasonably foreseeable impact without breaking, or
- (c) Be protected from impact.

Limits on application

Performance F2.3.2 does not apply to *Housing*

CLAUSE F3—HAZARDOUS SUBSTANCES AND PROCESSES**Provisions****Limits on application****OBJECTIVE**

F3.1 The objective of this provision is to safeguard people from injury or illness, and *other property* from damage, caused by *hazardous substances* or processes in *buildings*.

FUNCTIONAL REQUIREMENT

F3.2 *Buildings* where *hazardous substances* are stored and hazardous processes undertaken, shall be constructed to provide *adequate* protection to people and to *other property*.

PERFORMANCE

F3.3 Spaces in *buildings* where *hazardous substances* are stored, handled or used, or where hazardous processes are undertaken, shall be located and constructed to protect people, and *other property*, under both normal and reasonably foreseeable abnormal conditions, and shall be provided with:

- (a) Means of restricting unauthorised access,
- (b) Means of preventing *hazardous substances*, or other materials unacceptable to the *network utility operator*, from entering *sewers* or public *drains*,
- (c) Means of allowing the harmless release of pressure where there is a significant risk of explosion occurring,
- (d) Protected ignition sources where flammable or explosive goods are stored,
- (e) Means of rendering harmless by ventilation, containment, dilution, or chemical or biological action, any radioactive, toxic or flammable vapours, gases or materials which may escape from pipes, vessels or containers,
- (f) Impervious, easily cleaned surface finishes on *building elements* likely to be splashed or become contaminated in the course of the *intended use* of the *building*, and
- (g) Signs as required by Clause F8 "Signs".

CLAUSE F4—SAFETY FROM FALLING**Provisions****OBJECTIVE**

F4.1 The objective of this provision is to safeguard people from injury caused by falling.

FUNCTIONAL REQUIREMENT

F4.2 *Buildings* shall be constructed to reduce the likelihood of accidental fall.

PERFORMANCE

F4.3.1 Where people could fall 1 metre or more from an opening in the external envelope or floor of a *building*, or from a sudden change of level within or associated with a *building*, a barrier shall be provided.

F4.3.2 Roofs with permanent access shall have barriers provided.

F4.3.3 Swimming pools having a depth of water exceeding 400mm, shall [have barriers provided].

F4.3.4 Barriers shall:

- (a) Be continuous and extend for the full extent of the hazard,
- (b) Be of appropriate height,
- (c) Be constructed with *adequate* rigidity,
- (d) Be of *adequate* strength to withstand the foreseeable impact of people and, where appropriate, the static pressure of people pressing against them,
- (e) Be constructed to prevent people from falling through them, and
- [(f) In the case of a swimming pool, restrict the access of children under 6 years of age to the pool or the immediate pool area.]

[(g) Restrict the passage of children under 6 years of age when provided to guard a change of level in areas likely to be frequented by them.]

Limits on application

Performance F4.3.1 shall not apply where such a barrier would be incompatible with the *intended use* of an area, or to temporary barriers on *construction* sites where the possible fall is less than 3 metres [, or to *buildings* providing pedestrian access in remote locations where the route served presents similar natural hazards].

Performance F4.3.3 shall not apply to any pool exempted under section 5 of the Fencing of Swimming Pools Act 1987.

[Performance F4.3.4(f) shall not apply to any pool exempted under section 5 of the Fencing of Swimming Pools Act 1987.]

Clause F4.3.1 was amended, as from 3 January 2002, by regulation 3(9) Building Amendment Regulations 2001 (SR 2001/374), by adding, to the entry adjacent to clause F4.3.1 in the column headed "Limits on application", the words "", or to buildings providing pedestrian access in remote locations where the route served presents similar natural hazards".

Clause F4.3.3 was amended, as from 22 December 1994, by regulation 5(1) Buildings Regulations 1992, Amendment No 1 (SR 1994/263) by substituting the words "have barriers provided" for the words "be constructed with a barrier to restrict access to the pool or the immediate pool area, by children under 6 years of age".

Clause F4.3.4 was amended, as from 22 December 1994, by regulation 5(2) Buildings Regulations 1992, Amendment No 1 (SR 1994/263) by substituting para (f), inserting the text opposite para (f), and inserting para (g).

Clause F4.3.4(h) was inserted, as from 21 June 2007, by regulation 5 Building Amendment Regulations 2007 (SR 2007/124).

CLAUSE F4—SAFETY FROM FALLING (continued)**Provisions**

[(h) Be constructed so that they are not readily able to be used as seats.]

F4.3.5 Barriers to swimming pools shall have in addition to performance F4.3.4:

[(a) All gates and doors fitted with latching devices not readily operated by children, and constructed to automatically close and latch when released from any stationary position 150mm or more from the closed and secured position, but excluding sliding and sliding-folding doors that give access to the immediate pool surround from a *building* that forms part of the barrier, and]

(b) No permanent objects on the outside of the barrier that could provide a climbing step.

Limits on application

[Performance F4.3.4(h) does not apply to *Housing*.]

Clause F4.3.5 was amended, as from 22 December 1994, by regulation 5(3) Buildings Regulations 1992, Amendment No 1 (SR 1994/263) by substituting para (a).

CLAUSE F5—CONSTRUCTION AND DEMOLITION HAZARDS

Provisions	Limits on application
<p>OBJECTIVE</p> <p>F5.1 The objective of this provision is to safeguard people from injury, and <i>other property</i> from damage, caused by <i>construction</i> or demolition site hazards.</p> <p>FUNCTIONAL REQUIREMENT</p> <p>[F5.2] <i>Construction</i> and demolition work on buildings shall be performed in a manner that avoids the likelihood of:</p> <ul style="list-style-type: none"> (a) Objects falling onto people on or off the site, (b) Objects falling on property off the site, (c) Other hazards arising on the site affecting people off the site and <i>other property</i>, and (d) Unauthorised entry of children to hazards on the site. <p>PERFORMANCE</p> <p>F5.3.1 Suitable <i>construction</i> methods shall be used to avoid the likelihood of tools or materials falling onto places where people might be present.</p> <p>F5.3.2 Where <i>construction</i> or demolition work presents a hazard in places to which the public has access, barriers shall be provided and shall:</p> <ul style="list-style-type: none"> (a) Be of appropriate height and <i>construction</i> to prevent site hazards from harming traffic or passersby, (b) Be difficult to climb, (c) Have no opening other than those approved by the <i>territorial authority</i> for access and viewing, (d) Have no gates or doors which project beyond the site when opened, (e) Contain no projection that would be a hazard to traffic or people, and (f) Be clearly marked where the barrier itself may otherwise present a hazard to traffic or passersby. 	

Clause F5 was amended, as from 22 December 1994, by regulation 6 Buildings Regulations 1992, Amendment No 1 (SR 1994/263) by substituting the expression "F5.2" for the expression "F5" immediately under the heading "FUNCTIONAL REQUIREMENT".

CLAUSE F5—CONSTRUCTION AND DEMOLITION HAZARDS (continued)**Provisions**

F5.3.3 Where a *construction* or demolition site contains any hazard which might be expected to attract the unauthorised entry of children, the hazard shall be enclosed to restrict access by children.

F5.3.4 Suitable barriers shall be constructed to provide a safe route for people where lifting equipment creates a risk of accident from objects falling on a place of public access, or where a similar risk results from the height at which *construction* or demolition work is being carried out.

Limits on application

[CLAUSE F6—VISIBILITY IN ESCAPE ROUTES]**Provisions****OBJECTIVE**

F6.1 The objective of this provision is to help safeguard people from injury in *escape routes* during failure of the main lighting.

FUNCTIONAL REQUIREMENT

F6.2 *Specified features in escape routes* must be made *reasonably visible* by lighting systems, other systems, or both, during failure of the main lighting.

PERFORMANCE

F6.3.1 *Specified features in escape routes* must, when the systems for visibility are at their design level, be *reasonably visible*.

F6.3.2 The systems for visibility must operate to the following percentages of their design levels within the following times after failure of the main lighting:

- (a) 80% in 0.5 seconds in locations (examples of which are given by performance F6.3.3) where there is a high risk of injury due to delay in operation of the systems for visibility; and
- (b) 10% in 0.5 seconds, and 80% in 30 seconds, in stairs and in locations that are unfamiliar to users; and
- (c) 10% in 20 seconds, and 80% in 60 seconds, in all other locations.

Limits on application

Requirement F6.2 does not apply to *Detached Dwellings, household units* within *Multi-unit Dwellings, Outbuildings, [[backcountry huts,]]* or *Ancillary buildings*.

Performance F6.3.1 does not apply to *specified features* in the initial 20 metres of an *escape route* if the risk of injury, or impediment to movement of people, due to the *specified features* not being visible is low (for example, because people are familiar with the *escape route*, the *escape route* is level, and people do not require assistance to escape).

Schedule 1 clause F6.2: amended, on 31 October 2008, by regulation 8 of the Building (Building Code: Backcountry Huts) Amendment Regulations 2008 (SR 2008/358).

Clause F6.2 was amended, as from 22 December 1994, by regulation 7(1) Buildings Regulations 1992, Amendment No 1 (SR 1994/263) by substituting the word "Ancillary" for the word "Ancillary".

Clause F6.3.1 was amended, as from 22 December 1994, by regulation 7(2) Buildings Regulations 1992, Amendment No 1 (SR 1994/263) by inserting the words "or 30 minutes, whichever is the greater".

Clause F6 was substituted, as from 21 June 2007, by regulation 6(1) Building Amendment Regulations 2007 (SR 2007/124).

[CLAUSE F6—VISIBILITY IN ESCAPE ROUTES (continued)]**Provisions**

F6.3.3 Examples of locations (referred to in performance F6.3.2(a)) where there is a high risk of injury due to delay in operation of the systems for visibility include:

(a) areas where dangerous machinery is installed:

(b) areas where hazardous processes take place:

(c) clinical areas of hospitals:

(d) prisons and other *buildings* in which people are detained:

(e) any part of an *escape route* designed for use at any time by more than 250 people.

F6.3.4 The systems for visibility must operate continuously in *buildings* or parts of *buildings* in the following risk groups for the following periods after failure of the main lighting:

(a) *risk group A*, until restoration of the main lighting system:

(b) *risk group B*, 90 minutes:

(c) *risk group C*, 30 minutes.

F6.3.5 Despite performance F6.3.4, if a *building* or part of a *building* falls into both *risk group A* and *risk group B*, the systems for visibility must operate for whichever is the longer of the periods specified in performance F6.3.4(a) and (b).

F6.3.6 Signs to indicate *escape routes* must be provided as required by Clause F8 "Signs".

Limits on application

CLAUSE F7—WARNING SYSTEMS**Provisions****OBJECTIVE**

F7.1 The objective of this provision is to safeguard people from injury or illness due to lack of awareness of an emergency.

FUNCTIONAL REQUIREMENT

F7.2 *Buildings* shall be provided with appropriate means of warning people to escape to a *safe place* [in an emergency].

PERFORMANCE

F7.3.1 A means of warning must alert people to the emergency in *adequate* time for them to reach a *safe place*.

F7.3.2 Appropriate means of detection and warning for *fire* must be provided within each *household unit*.

F7.3.3 Appropriate means of warning for *fire* and other emergencies must be provided in *buildings* as necessary to satisfy the other performance requirements of this code.

Limits on application

Performance F7.3 does not apply to *Out-buildings*[, *backcountry huts*,] or *Ancillary buildings*.

Clause F7.2 was amended, as from 24 April 2003, by regulation 3(1) Buildings Amendment Regulations (SR 2003/61) by adding the words "in an emergency".

Clause F7.3 was amended, as from 22 December 1994, by regulation 8 Buildings Regulations 1992, Amendment No 1 (SR 1994/263) by substituting the word "Ancillary" for the word "Ancillary".

Clause F7.3 was substituted, as from 24 April 2003, by regulation 3(2) Buildings Amendment Regulations (SR 2003/61).

Schedule 1 clause F7.3.1: amended, on 31 October 2008, by regulation 9 of the Building (Building Code: Backcountry Huts) Amendment Regulations 2008 (SR 2008/358).

CLAUSE F8—SIGNS**Provisions****OBJECTIVE**

F8.1 The objective of this provision is to:

- (a) Safeguard people from injury or illness resulting from inadequate identification of *escape routes*, or of hazards within or about the *building*,
- (b) Safeguard people from loss of *amenity* due to inadequate direction, and
- (c) Ensure that *people with disabilities* are to carry out normal activities and processes within *buildings*.

FUNCTIONAL REQUIREMENT

F8.2 Signs shall be provided in and about *buildings* to identify:

- (a) *Escape routes*,
- (b) Emergency related safety features,
- (c) Potential hazards, and
- (d) *Accessible routes* and facilities for *people with disabilities*.

PERFORMANCE

F8.3.1 Signs shall be clearly visible and readily understandable under all conditions of foreseeable use.

F8.3.2 Signs indicating potential hazards shall be provided in sufficient locations to notify people before they encounter the hazard.

F8.3.3 Signs to facilitate escape shall:

- (a) Be provided in sufficient locations to identify *escape routes* and guide people to a *safe place*, and
- [(b) Remain visible during failure of the main lighting for the period required by performance F6.3.4 and performance F6.3.5.]

F8.3.4 Signs shall be provided in sufficient locations to identify *accessible routes* and facilities provided for *people with disabilities*.

Limits on application

Objective F8.1(c) shall apply only to those *buildings* to which [section 47A of the Act] applies.

Requirement F8.2 shall not apply to *Detached Dwellings*, or within *household units* of *Multi-unit Dwellings*.

Note: Section 47A is in the Building Act 1991. The equivalent section in the Building Act 2004 is section 118.

The limits on application to clause F8.1(c) were amended consequential on the Health Reforms (Transitional Provisions) Act 1993, as from 29 December 2000, by regulation 4(1) Building Amendment Regulations 2000 (SR 2000/119), by substituting the expression "section 47A of the Act" for the expression "section 25 of the Disabled Persons Community Welfare Act 1975".

Clause F8.3.3(b) was substituted, as from 21 June 2007, by regulation 6(4) Building Amendment Regulations 2007 (SR 2007/124).

G Services and Facilities

CLAUSE G1—PERSONAL HYGIENE

Provisions

OBJECTIVE

G1.1 The objective of this provision is to:

- (a) Safeguard people from illness caused by infection or contamination,
- (b) Safeguard people from loss of *amenity* arising from the absence of appropriate personal hygiene facilities, and
- (c) Ensure *people with disabilities* are able to carry out normal activities and processes within *buildings*.

FUNCTIONAL REQUIREMENT

G1.2 *Buildings* shall be provided with appropriate spaces and facilities for personal hygiene.

PERFORMANCE

G1.3.1 *Sanitary fixtures* shall be provided in sufficient number and be appropriate for the people who are intended to use them.

G1.3.2 *Sanitary fixtures* shall be located, constructed and installed to:

- (a) Facilitate *sanitation*,
- (b) Avoid risk of food contamination,
- (c) Avoid harbouring dirt or germs,
- (d) Provide appropriate privacy,
- (e) Avoid affecting occupants of adjacent spaces from the presence of unpleasant odours, accumulation of offensive matter, or other source of annoyance,
- (f) Allow effective cleaning,
- (g) Discharge to a plumbing and drainage system as required by clause G13 "Foul water" when water-borne disposal is used, and
- (h) Provide a healthy safe disposal system when non-water-borne disposal is used.

G1.3.3 Facilities for personal hygiene shall be provided in convenient locations.

G1.3.4 Personal hygiene facilities provided for *people with disabilities* shall be *accessible*.

Limits on application

Objective G1.1(c) shall apply only to those *buildings* to which [section 47A of the Act] applies.

Note: Section 47A is in the Building Act 1991. The equivalent section in the Building Act 2004 is section 118.

Performance G1.3.4 shall not apply to *Housing*, *Outbuildings*, [*backcountry huts*], *Ancillary buildings*, and to *Industrial buildings* where no more than 10 people are employed.

The limits on application to clause G1.1(c) were amended consequential on the Health Reforms (Transitional Provisions) Act 1993, as from 29 December 2000, by regulation 4(1) Building Amendment Regulations 2000 (SR 2000/119), by substituting the expression "section 47A of the Act" for the expression "section 25 of the Disabled Persons Community Welfare Act 1975".

Schedule 1 clause G1.3.4: amended, on 31 October 2008, by regulation 10 of the Building (Building Code: Backcountry Huts) Amendment Regulations 2008 (SR 2008/358).

CLAUSE G2—LAUNDERING**Provisions****OBJECTIVE**

G2.1 The objective of this provision is to ensure:

- (a) *Adequate amenities* for people to do laundering, and
- (b) That *people with disabilities* are able to carry out normal activities and processes within *buildings*.

FUNCTIONAL REQUIREMENT

G2.2 *Buildings* shall be provided with *adequate* space and facilities for laundering.

PERFORMANCE

G2.3.1 Facilities shall have capacity for the *intended use*, and consist of *fixtures*, or space and services for appliances.

G2.3.2 Space shall be *adequate* in size to provide for the installation and use of *fixtures* or appliances.

G2.3.3 Space and facilities shall be provided within each accommodation unit or may be grouped elsewhere in a convenient location.

G2.3.4 *Accessible* facilities shall be provided for *people with disabilities*.

Limits on application

Objective G2.1(b) shall apply to those *buildings* to which [section 47A of the Act] applies.

Requirement G2.2 shall apply only to *Housing*, old people's homes, early childhood centres, camping grounds and work camps.

Performance G2.3.4 shall apply only to camping grounds.

Note: Section 47A is in the Building Act 1991. The equivalent section in the Building Act 2004 is section 118.

The limits on application to clause G2.1(b) were amended consequential on the Health Reforms (Transitional Provisions) Act 1993, as from 29 December 2000, by regulation 4(1) Building Amendment Regulations 2000 (SR 2000/119), by substituting the expression "section 47A of the Act" for the expression "section 25 of the Disabled Persons Community Welfare Act 1975".

CLAUSE G3—FOOD PREPARATION AND PREVENTION OF CONTAMINATION**Provisions****OBJECTIVE**

G3.1 The objective of this provision is to:

- (a) Safeguard people from illness due to contamination,
- (b) Enable hygienic food preparation without loss of *amenity*, and
- (c) Ensure that *people with disabilities* are able to carry out normal activities and processes within *buildings*.

FUNCTIONAL REQUIREMENT

G3.2.1 *Buildings* shall be provided with space and facilities for the hygienic storage, preparation and cooking of food, that are *adequate* for the *intended use* of the *building*.

G3.2.2 *Buildings* used for the storage, manufacture or processing of food, including animal products, shall be constructed to safeguard the contents from contamination.

[G3.2.3] *Buildings* used for the medical treatment of humans or animals, or the reception of dead bodies, shall be constructed to avoid the spread of contamination from the *building* contents.

PERFORMANCE

G3.3.1 Food preparation facilities shall be hygienic and include:

- (a) Space for a refrigerator, or a perishable food storage area capable of being cooled and protected from vermin and insects,
- (b) Means for food rinsing, utensil washing and waste water disposal,

(c) Means for cooking food, and

(d) Space and a surface for food preparation.

Limits on application

Objective G3.1(c) shall apply only to those *buildings* to which [section 47A of the Act] applies.

Requirement G3.2.1 shall apply to *Housing*, work camps, old people's homes and early childhood centres, and where appropriate shall also apply to *Commercial* and *Industrial buildings* whose intended uses include the manufacture, preparation, packaging or storage of food.

Performance G3.3.1(a) and (b) shall apply to *Housing*, work camps, old people's homes, early childhood centres and *Commercial* or *Industrial buildings* whose *intended uses* include the handling of perishable food.

Performance G3.3.1(c) shall apply to *Housing*, work camps, old people's homes and early childhood centres.

Performance G3.3.1(d) shall apply to *Housing*, work camps, old people's homes and early childhood centres.

Note: Section 47A is in the Building Act 1991. The equivalent section in the Building Act 2004 is section 118.

Clause G3 was amended, as from 22 December 1994, by regulation 9 Buildings Regulations 1992, Amendment No 1 (SR 1994/263) by substituting the expression "G3.2.3" for the expression "G3.2.2" where it secondly occurred under the heading "FUNCTIONAL REQUIREMENT".

The limits on application to clause G3.1(c) were amended consequential on the Health Reforms (Transitional Provisions) Act 1993, as from 29 December 2000, by regulation 4(1) Building Amendment Regulations 2000 (SR 2000/119), by substituting the expression "section 47A of the Act" for the expression "section 25 of the Disabled Persons Community Welfare Act 1975".

CLAUSE G3—FOOD PREPARATION AND PREVENTION OF CONTAMINATION (continued)**Provisions**

G3.3.2 Spaces for food preparation and utensil washing shall have:

- (a) Interior linings and work surfaces shall be *impervious* and easily cleaned,
- (b) All *building elements* constructed with materials which are free from *hazardous substances* which could cause contamination to the *building* contents, and

- (c) Exposed *building elements* located and shaped to avoid the accumulation of dirt.

G3.3.3 An *adequate* energy supply shall be provided, appropriately located for use by cooking and refrigeration appliances.

G3.3.4 Space and facilities shall be provided within each *household unit*, or grouped elsewhere in a convenient location.

G3.3.5 Where facilities are provided for *people with disabilities* they shall be *accessible*.

G3.3.6 Spaces in *buildings* shall be protected from the likelihood of contamination or vermin entering areas used for the storage, processing or preparation of food, and shall have a means of preventing contamination spreading from these areas to other spaces.

Limits on application

Performance G3.3.2(b) shall apply to *Housing*, work camps, old people's homes and early childhood centres, and where appropriate shall also apply to *Commercial* and *Industrial buildings* whose *intended uses* include the manufacture, preparation, packaging or storage of food.

Performance G3.3.2(c) shall not apply to *Housing*.

Performance G3.3.5 shall apply only to camping grounds and *accessible* accommodation units in *Communal Residential buildings*.

Performance G3.3.6 shall apply to *Commercial* or *Industrial buildings* whose *intended uses* include the handling of perishable food, the medical treatment of humans or animals, the slaughter of animals or the reception of dead bodies.

CLAUSE G4—VENTILATION**Provisions****OBJECTIVE**

G4.1 The objective of this provision is to safeguard people from illness or loss of *amenity* due to lack of fresh air.

FUNCTIONAL REQUIREMENT

G4.2 Spaces within *buildings* shall be provided with *adequate* ventilation consistent with their maximum occupancy [and their intended use].

PERFORMANCE

G4.3.1 Spaces within *buildings* shall have means of ventilation with *outdoor air* that will provide an *adequate* number of air changes to maintain air purity.

G4.3.2 Mechanical air-handling systems shall be constructed and maintained in a manner that prevents harmful bacteria, pathogens and allergens from multiplying within them.

G4.3.3 *Buildings* shall have a means of collecting or otherwise removing the following products from the spaces in which they are generated:

- (a) Cooking fumes and odours,
- (b) [Moisture] from laundering, utensil washing, bathing and showering,
- (c) Odours from sanitary and waste storage spaces,
- (d) Gaseous by-products and excessive moisture from commercial or industrial processes,
- (e) Poisonous fumes and gases,
- (f) Flammable fumes and gases,
- (g) Airborne particles,
- (h) Bacteria, viruses or other pathogens, or
- (i) Products of combustion.

G4.3.4 Contaminated air shall be disposed of in a way which avoids creating a nuisance or hazard to people and *other property*.

G4.3.5 The quantities of air supplied for ventilation shall meet the additional demands of any fixed *combustion appliances*.

Limits on application

Clause G4.2 Schedule was amended, as from 11 September 1997, by regulation 3(1) Building Amendment Regulations 1997 (SR 1997/156) by inserting the words “and their intended use”.

Clause G4.3.3(b) Schedule was amended, as from 11 September 1997, by regulation 3(1) Building Amendment Regulations 1997 (SR 1997/156) by substituting the word “Moisture” for the word “Steam”.

CLAUSE G5—INTERIOR ENVIRONMENT**Provisions****OBJECTIVE**

G5.1 The objective of this provision is to:

- (a) Safeguard people from illness caused by low air temperature,
- (b) Safeguard people from injury or loss of *amenity* caused by inadequate activity space,
- (c) Safeguard people from injury caused by unsafe installations, and
- (d) Ensure that *people with disabilities* are able to carry out normal activities and processes within *buildings*.

FUNCTIONAL REQUIREMENT

G5.2.1 *Buildings* shall be constructed to provide:

- (a) An *adequate*, controlled interior temperature,
- (b) *Adequate* activity space for the *intended use*, and
- (c) Accessible spaces and facilities.

G5.2.2 Heating appliances in *buildings* shall be installed in a way that reduces the likelihood of injury.

PERFORMANCE

G5.3.1 *Habitable spaces*, bathrooms and recreation rooms shall have provision for maintaining the internal temperature at no less than 16°C measured at 750mm above floor level, while the space is *adequately* ventilated.

G5.3.2 Heating appliances, and any attached cables, pipes or other fittings shall be securely fixed in place.

G5.3.3 *Habitable spaces* shall have sufficient space for activity, furniture, and sanitary and mobility aids.

G5.3.4 Where reception counters or desks are provided for public use, at least one counter or desk shall be *accessible*.

Limits on application

Objective G5.1(d) shall apply to those *buildings* to which [section 47A of the Act] applies.

Requirement G5.2.1(a) shall apply only to *habitable spaces*, bathrooms and recreation rooms in old people's homes and early childhood centres.

Requirement G5.2.1(b) shall apply only to [*old people's homes*].

Requirement G5.2.1(c) shall apply only to *Communal Residential, Communal Non-residential, and Commercial buildings*.

Performance G5.3.1 shall apply only to old people's homes and early childhood centres.

Performance G5.3.2 shall apply only to old people's homes and early childhood centres.

Performance G5.3.3 shall apply only to old people's homes.

Performance G5.3.4 applies only to *Communal Residential, Communal Non-Residential, and Commercial buildings*.

Note: Section 47A is in the Building Act 1991. The equivalent section in the Building Act 2004 is section 118.

Clause G5 was amended, as from 22 December 1994, by regulation 10 Buildings Regulations 1992, Amendment No 1 (SR 1994/263) by substituting the expression "old people's homes" for the expression "old people's homes" in italics in the second column, opposite clause G5.2.1(b)

The limits on application to clause G5.1(d) were amended consequential on the Health Reforms (Transitional Provisions) Act 1993, as from 29 December 2000, by regulation 4(1) Building Amendment Regulations 2000 (SR 2000/119), by substituting the expression "section 47A of the Act" for the expression "section 25 of the Disabled Persons Community Welfare Act 1975".

CLAUSE G5—INTERIOR ENVIRONMENT (continued)**Provisions**

G5.3.5 Buildings shall be provided with listening systems which enable enhanced hearing by people with hearing aids.

G5.3.6 Enhanced listening systems shall be identified by signs complying with Clause F8 "Signs".

Limits on application

Performance G5.3.5 applies only to:

- (a) *Communal Non-Residential* assembly spaces occupied by more than 250 people, and
- (b) Any theatre, cinema, or public hall, and
- (c) Assembly spaces in old people's homes occupied by more than 20 people.

CLAUSE G6—AIRBORNE AND IMPACT SOUND**Provisions****OBJECTIVE**

G6.1 The objective of this provision is to safeguard people from illness or loss of *amenity* as a result of undue noise being transmitted between abutting occupancies.

FUNCTIONAL REQUIREMENT

G6.2 *Building elements* which are common between occupancies, shall be constructed to prevent undue noise transmission from other occupancies or common spaces, to the *habitable spaces of household units*.

PERFORMANCE

G6.3.1 The *Sound Transmission Class* of walls, floors and ceilings, shall be no less than 55.

G6.3.2 The *Impact Insulation Class* of floors shall be no less than 55.

Limits on application

CLAUSE G7—NATURAL LIGHT**Provisions****OBJECTIVE**

G7.1 The objective of this provision is to safeguard people from illness or loss of *amenity* due to isolation from natural light and the outside environment.

FUNCTIONAL REQUIREMENT

G7.2 *Habitable spaces* shall provide *adequate* openings for natural light and for a visual awareness of the outside environment.

PERFORMANCE

G7.3.1 Natural light shall provide an *illuminance* of no less than 30 lux at floor level for 75 percent of the *standard year*.

G7.3.2 Openings to give awareness of the outside shall be transparent and provided in suitable locations.

Limits on application

Requirement G7.2 shall apply only to *Housing*, old people's homes and early childhood centres.

CLAUSE G8—ARTIFICIAL LIGHT**Provisions****OBJECTIVE**

G8.1 The objective of this provision is to safeguard people from injury due to lack of *adequate* lighting.

FUNCTIONAL REQUIREMENT

G8.2 Spaces within *buildings* used by people, shall be provided with *adequate* artificial lighting which, when activated in the absence of sufficient natural light, will enable safe movement.

PERFORMANCE

G8.3 *Illuminance* at floor level shall be no less than 20 lux.

Limits on application

Requirement G8.2 shall apply to:

- (a) All *exitways* in *Multi-unit Dwellings*, *Group Dwellings* and *Communal Residential* [(except *backcountry huts*)], *Communal Non-residential*, *Commercial* and *Industrial buildings*,
- (b) All *access routes* except those in *Outbuildings* [, *backcountry huts*,] and *Ancillary buildings*, and
- (c) All common spaces within *Multi-unit Dwellings*, *Group Dwellings*, and *Communal Residential* [(except *backcountry huts*)] and *Communal Non-residential buildings*.

[Performance G8.3 does not apply during a failure of the main lighting, when the requirements in Clause F6 "Visibility in escape routes" apply.]

Schedule 1 clause G8.2 paragraph (a): amended, on 31 October 2008, by regulation 11(1) of the Building (Building Code: Backcountry Huts) Amendment Regulations 2008 (SR 2008/358).

Schedule 1 clause G8.2 paragraph (b): amended, on 31 October 2008, by regulation 11(2) of the Building (Building Code: Backcountry Huts) Amendment Regulations 2008 (SR 2008/358).

Schedule 1 clause G8.2 paragraph (c): amended, on 31 October 2008, by regulation 11(3) of the Building (Building Code: Backcountry Huts) Amendment Regulations 2008 (SR 2008/358).

Clause G8.3 was amended, as from 21 June 2007, by regulation 6(5) Building Amendment Regulations 2007 (SR 2007/124) by substituting the limit on application.

CLAUSE G9—ELECTRICITY**Provisions****OBJECTIVE**

G9.1 The objective of this provision is to ensure that:

- (a) In *buildings* supplied with electricity, the *electrical installation* has safeguards against outbreak of fire and personal injury, and
- (b) *People with disabilities* are able to carry out normal activities and processes within *buildings*.

FUNCTIONAL REQUIREMENT

G9.2 Where provided in a *building*, *electrical installations* shall be safe for their *intended use*.

PERFORMANCE

G9.3.1 The *electrical installation* shall incorporate systems to:

- (a) Protect people from contact with parts of the installation which are live during normal operation, and to prevent parts of the installation or other *building elements* becoming live during fault conditions,
- (b) Permit the safe isolation of the installation and of electrical fittings and appliances,
- (c) Safeguard people from excessive temperatures resulting from either normal operation of electrical equipment, or from currents which could exceed the installation rating,
- (d) Safeguard people from injury which may result from electromechanical stress in electrical components caused by currents in excess of the installation rating,
- (e) Protect *building elements* from risk of ignition, impairment of their physical or mechanical properties, or function, due to temperature increases resulting from heat transfer or electric arc,
- (f) Operate safely in its intended environment, and
- (g) Safeguard against ignition of the surrounding atmosphere where it is potentially flammable or explosive.

Limits on application

Objective G9.1(b) shall apply only to those *buildings* to which [section 47A of the Act] applies.

Note: Section 47A is in the Building Act 1991. The equivalent section in the Building Act 2004 is section 118.

The limits on application to clause G9.1(b) were amended consequential on the Health Reforms (Transitional Provisions) Act 1993, as from 29 December 2000, by regulation 4(1) Building Amendment Regulations 2000 (SR 2000/119), by substituting the expression "section 47A of the Act" for the expression "section 25 of the Disabled Persons Community Welfare Act 1975".

CLAUSE G9—ELECTRICITY (continued)**Provisions**

G9.3.2 An *electrical installation* supplying an essential service shall:

- (a) Maintain the supply for a time appropriate to that service, and
- (b) Be capable of being isolated from the supply system, independently of the remainder of the installation.

G9.3.3 An *electrical installation* connected to an *electrical supply system*, shall contain safeguards which protect the safety features of the external supply.

G9.3.4 In *buildings* intended for use by *people with disabilities*, light switches and plug socket outlets shall be *accessible* and usable.

Limits on application

Performance G9.3.4 shall not apply to *Housing*, *Outbuildings*, *Ancillary buildings*, and to *Industrial buildings* where no more than 10 people are employed.

CLAUSE G10—PIPED SERVICES**Provisions****OBJECTIVE**

G10.1 The objective of this provision is to safeguard people from injury or illness caused by extreme temperatures or *hazardous substances* associated with *building services*.

FUNCTIONAL REQUIREMENT

G10.2 In *buildings* provided with potentially *hazardous services* containing hot, cold, flammable, corrosive or toxic fluids, the installations shall be constructed to provide *adequate safety* for people.

PERFORMANCE

G10.3.1 Piping systems shall be constructed to avoid the likelihood of:

- (a) Significant leakage or damage during normal or reasonably foreseeable abnormal conditions,
- (b) Detrimental contamination of the contents by other substances,
- (c) Adverse interaction between services, or between piping and electrical systems, and
- (d) People having contact with pipes which could cause them harm.

G10.3.2 Provision shall be made for the ready removal of moisture or condensate in gas pipes.

G10.3.3 Pipes shall be protected against corrosion in the environment of their use.

G10.3.4 Piping systems shall be identified with markings if the contents are not readily apparent from the location or associated equipment.

G10.3.5 Enclosed spaces shall be constructed to avoid the likelihood of accumulating vented or leaking gas.

G10.3.6 Piped systems shall have isolation devices which permit the installation or individual items of apparatus to be isolated from the supply system, for maintenance, testing, fault detection and repair.

Limits on application

CLAUSE G11—GAS AS AN ENERGY SOURCE**Provisions****OBJECTIVE**

G11.1 The objective of this provision is to:

- (a) Safeguard people from injury arising from the use of gas as an energy source,
- (b) Safeguard people and *other property* from the risk of *fire* or explosion, and
- (c) Safeguard people from loss of *amenity* due to the gas supply being inadequate for the *intended use*.

FUNCTIONAL REQUIREMENT

G11.2 In *buildings* where gas is used as an energy source, the supply system shall be safe and *adequate* for its *intended use*.

PERFORMANCE

G11.3.1 Supply systems shall be constructed to maintain a safe pressure range appropriate to the appliances and the type of gas used.

G11.3.2 The gas supply to all appliances in a single ventilated space, shall be fitted with an automatic cut-off activated by failure of any continuous forced ventilation system used for combustion, ventilation or safe operation of a fixed gas appliance.

G11.3.3 A flued fixed gas appliance shall have no adverse interaction with any other flued appliance.

G11.3.4 Supply systems shall have isolation devices which permit the whole installation, or individual items of apparatus, to be isolated from the supply for maintenance, testing, fault detection or repair.

G11.3.5 Where gas is supplied from an external source, the supply system within *buildings* shall be constructed to avoid the likelihood of:

- (a) Contamination of the external supply from other gas sources within the *building*,
- (b) Adverse effects on the pressure of the external supply, and
- (c) The external supply pipe acting as an earthing conductor.

G11.3.6 The location and installation of meters and service risers shall meet the requirements of the *network utility operator*.

Limits on application

[CLAUSE G12—WATER SUPPLIES**Provisions****OBJECTIVE**

G12.1 The objective of this provision is to—

- (a) safeguard people from illness or injury caused by contaminated water;
- (b) safeguard people from injury caused by hot water system explosion, or from contact with excessively hot water;
- (c) safeguard people from loss of *amenity* arising from—
 - (i) a lack of hot water for personal hygiene; or
 - (ii) water for human consumption that is offensive in appearance, odour, or taste;
- (d) ensure that *people with disabilities* are able to carry out normal activities and functions within *buildings*.

FUNCTIONAL REQUIREMENT

G12.2 *Buildings* provided with water outlets, *sanitary fixtures*, or *sanitary appliances* must have safe and *adequate* water supplies.

PERFORMANCE

G12.3.1 Water intended for human consumption, food preparation, utensil washing, or oral hygiene must be potable

G12.3.2 A potable *water supply system* must be—

- (a) protected from contamination; and
- (b) installed in a manner that avoids the likelihood of contamination within the system and the *water main*; and
- (c) installed using components that will not contaminate the water.

G12.3.3 A non-potable *water supply system* used for personal hygiene must be installed in a manner that avoids the likelihood of illness or injury being caused by the system.

G12.3.4 Water pipes and outlets provided with non-potable water must be clearly identified.

Limits on application

Objective G12.1(d) applies only to those *buildings* to which section 47A of the Act applies.

[[Performance G12.3.1 does not apply to *backcountry huts*.]]

Note: Section 47A is in the Building Act 1991. The equivalent section in the Building Act 2004 is section 118.

Clause G12 was substituted, as from 3 January 2002, by regulation 3(10) Building Amendment Regulations 2001 (SR 2001/374).

Schedule 1 clause G12.3.1: amended, on 31 October 2008, by regulation 12 of the Building (Building Code: Backcountry Huts) Amendment Regulations 2008 (SR 2008/358).

The limits on application to clause G12.1(d) were amended consequential on the Health Reforms (Transitional Provisions) Act 1993, as from 29 December 2000, by regulation 4(1) Building Amendment Regulations 2000 (SR 2000/119), by substituting the expression "section 47A of the Act" for the expression "section 25 of the Disabled Persons Community Welfare Act 1975".

CLAUSE G12—WATER SUPPLIES (continued)**Provisions**

G12.3.5 *Sanitary fixtures and sanitary appliances* must be provided with hot water when intended to be used for—

- (a) utensil washing; and
- (b) personal washing, showering, or bathing

G12.3.6 If hot water is provided to *sanitary fixtures and sanitary appliances* used for personal hygiene, it must be delivered at a temperature that avoids the likelihood of scalding.

G12.3.7 *Water supply systems* must be installed in a manner that—

- (a) pipes water to *sanitary fixtures and sanitary appliances* at flow rates that are *adequate* for the correct functioning of those *fixtures and appliances* under normal conditions; and
- (b) avoids the likelihood of leakage; and
- (c) allows reasonable access to components likely to need maintenance; and
- (d) allows the system and any backflow prevention devices to be isolated for testing and maintenance.

G12.3.8 Vessels used for producing or storing hot water must be provided with safety features that—

- (a) relieve excessive pressure during both normal and abnormal conditions; and
- (b) limit temperatures to avoid the likelihood of flash steam production in the event of rupture.

G12.3.9 A *hot water system* must be capable of being controlled to prevent the growth of legionella bacteria.

G12.3.10 Water supply taps must be *accessible* and usable for *people with disabilities*.

Limits on application

Performance G12.3.5(b) applies to only *housing*, retirement homes, and early childhood centres.

Performance G12.3.10 applies only to those *buildings* to which section 47A of the Act applies.]

Note: Section 47A is in the Building Act 1991. The equivalent section in the Building Act 2004 is section 118.

Clause G12.3.7 was amended, as from 22 December 1994, by regulation 11 Buildings Regulations 1992, Amendment No 1 (SR 1994/263) by substituting the word "legionella" for the word "legionella".

CLAUSE G13—FOUL WATER**Provisions****OBJECTIVE**

G13.1 The objective of this provision is to:

- (a) Safeguard people from illness due to infection or contamination resulting from personal hygiene activities, and
- (b) Safeguard people from loss of *amenity* due to the presence of unpleasant odours or the accumulation of offensive matter resulting from *foul water* disposal.

FUNCTIONAL REQUIREMENT

[G13.2 *Buildings in which sanitary fixtures and sanitary appliances using water-borne waste disposal are installed must be provided with—]*

[(a) an adequate plumbing and drainage system to carry foul water to appropriate outfalls; and]

[(b) if no sewer is available, an adequate system for the storage, treatment, and disposal of foul water.]

PERFORMANCE

G13.3.1 The *plumbing system* shall be constructed to:

- (a) Convey *foul water* from *buildings* to a drainage system,
- (b) Avoid the likelihood of blockage and leakage,
- (c) Avoid the likelihood of foul air and gases entering *buildings*, and
- (d) provide reasonable access for maintenance and clearing blockages.

G13.3.2 The *drainage system* shall:

- (a) Convey *foul water* to an appropriate *outfall*,
- (b) Be constructed to avoid the likelihood of blockage,
- (c) Be supported, jointed and protected in a way that will avoid the likelihood of penetration of roots or the entry of ground water,
- (d) Be provided with reasonable access for maintenance and clearing blockages,

Limits on application

Clause G13.2 was substituted, as from 21 June 2007, by regulation 7(1) Building Amendment Regulations 2007 (SR 2007/124).

CLAUSE G13—FOUL WATER (continued)**Provisions**

(e) Be ventilated to avoid the likelihood of foul air and gases accumulating in the drainage system and *sewer*, and

(f) Be constructed to avoid the likelihood of damage from superimposed loads or normal ground movement.

G13.3.3 Where a *sewer* connection is available, the drainage system shall be connected to the *sewer*, and the connection shall be made in a manner that avoids damage to the *sewer* and is to the approval of the *network utility operator*.

[G13.3.4 If no *sewer* is available, facilities for the storage, treatment, and disposal of *foul water* must be constructed—]

[(a) with *adequate* capacity for the volume of *foul water* and the frequency of disposal; and]

[(b) with *adequate* vehicle access for collection if required; and]

[(c) to avoid the likelihood of contamination of any potable water supplies in compliance with Clause G12 "Water supplies"; and]

[(d) to avoid the likelihood of contamination of soils, ground water, and waterways except as permitted under the Resource Management Act 1991; and]

[(e) from materials that are impervious both to the *foul water* for which disposal is required, and to water; and]

[(f) to avoid the likelihood of blockage and leakage; and]

[(g) to avoid the likelihood of foul air and gases accumulating within or entering into *buildings*; and]

[(h) to avoid the likelihood of unauthorised access by people; and]

[(i) to permit easy cleaning and maintenance; and]

[(j) to avoid the likelihood of damage from superimposed loads or normal ground movement; and]

[(k) if those facilities are buried underground, to resist hydrostatic uplift pressures.]

Limits on application

Clause G13.3.4 was substituted, as from 21 June 2007, by regulation 7(2) Building Amendment Regulations 2007 (SR 2007/124).

CLAUSE G14—INDUSTRIAL LIQUID WASTE**Provisions****OBJECTIVE**

G14.1 The objective of this provision is to safeguard people from injury or illness caused by infection or contamination resulting from industrial liquid waste.

FUNCTIONAL REQUIREMENT

G14.2 *Buildings*, in which industrial liquid waste is generated shall be provided with *adequate* spaces and facilities for the safe and hygienic collection, holding, treatment and disposal of the waste.

PERFORMANCE

G14.3.1 Industrial liquid waste shall be conveyed to storage containers and within disposal systems in a way which will:

- (a) Transfer wastes from *buildings* safely and hygienically,
- (b) Avoid the likelihood of blockage and leakage,
- (c) Avoid the likelihood of foul air and gases entering *buildings*, and
- (d) Provide reasonable access for clearing of blockages.

[G14.3.2 Facilities for the storage, treatment, and disposal of industrial liquid waste must be constructed—]

[(a) with adequate capacity for the volume of waste and the frequency of disposal; and]

[(b) with *adequate* vehicle access for collection if required; and]

[(c) to avoid the likelihood of contamination of any potable water supplies in compliance with Clause G12 "Water supplies"; and]

[(d) to avoid the likelihood of contamination of soils, ground water, and waterways except as permitted under the Resource Management Act 1991; and]

[(e) from materials that are impervious both to the waste for which disposal is required, and to water; and]

[(f) to avoid the likelihood of blockage and leakage; and]

Limits on application

Clause G14.3.2. (d) was amended, as from 22 December 1994, by regulation 12 Building Regulations 1992, Amendment No 1 (SR 1994/263) by omitting the words "by a resource consent given".

Clause G14.3.2 was substituted, as from 21 June 2007, by regulation 8 Building Amendment Regulations 2007 (SR 2007/124).

CLAUSE G14—INDUSTRIAL LIQUID WASTE (continued)**Provisions**

[(g) to avoid the likelihood of foul air and gases accumulating within or entering into *buildings*; and]

[(h) to avoid the likelihood of unauthorised access by people; and]

[(i) to permit easy cleaning and maintenance; and]

[(j) to avoid the likelihood of damage from superimposed loads or normal ground movement; and]

[(k) if those facilities are buried underground, to resist hydrostatic uplift pressures.]

Limits on application

CLAUSE G15—SOLID WASTE**Provisions****OBJECTIVE**

G15.1 The objective of this provision is to safeguard people from injury or illness caused by infection or contamination from solid waste.

FUNCTIONAL REQUIREMENT

G15.2 *Buildings* shall be provided with space and facilities for the collection, and safe hygienic holding prior to disposal, of solid waste arising from the *intended use* of the *buildings*.

PERFORMANCE

G15.3.1 Where provision is made within *buildings* for the collection and temporary holding of solid waste, the spaces provided shall be:

- (a) Of sufficient size for the volume of waste and frequency of disposal,
- (b) Provided with reasonable access for the depositing and collection of the waste,
- (c) Capable of maintaining sanitary conditions having regard to the types of waste and storage containers, and
- (d) Capable of maintaining the appropriate temperature for the type of waste stored.

G15.3.2 Where a rubbish chute is provided, it shall be located and constructed to:

- (a) Convey the solid waste to an appropriate storage container,
- (b) Avoid the likelihood of blockage or leakage,
- (c) Permit easy cleaning and maintenance,
- (d) Avoid the likelihood of foul air or gases accumulating or entering the *building*,
- (e) Avoid the likelihood of the spread of *fire* beyond the refuse chute,
- (f) Have openings that allow waste to be [safely] deposited in the chute, and
- (g) Restrict access by children, animals and vermin.

G15.3.3 Where it is acceptable to the *network utility operator*, solid waste which has been suitably treated for disposal to a *sewer* may be discharged via a *foul water drain* complying with Clause G13 "Foul water".

Limits on application

Requirement G15.2 shall not apply to *Detached Dwellings*, *household units* of *Multi-unit Dwellings*, *Outbuildings* or *Ancillary buildings* if there is independent access or private open space at ground level.

Clause G15.3.2(f) was amended, as from 22 December 1994, by regulation 13 Buildings Regulations 1992, Amendment No 1 (SR 1994/263) by substituting the word "safely" for the word "safety".

H Energy Efficiency

[CLAUSE H1—ENERGY EFFICIENCY PROVISIONS]

Provisions

OBJECTIVE

H1.1 The objective of this provision is to facilitate efficient use of energy.

FUNCTIONAL REQUIREMENT

H1.2 *Buildings* must be constructed to achieve an adequate degree of energy efficiency when that energy is used for—

[[(a) modifying temperature, modifying humidity, providing ventilation, or doing all or any of those things; or]]

(b) providing hot water to [[and from]] *sanitary fixtures* or *sanitary appliances*, or both; or

(c) providing artificial lighting

PERFORMANCE

H1.3.1 The *building* envelope enclosing spaces where the temperature or humidity (or both) are modified must be constructed to—

(a) provide *adequate thermal resistance*; and
(b) limit uncontrollable airflow.

H1.3.2 ...

[[**H1.3.2A** ...

[[**H1.3.2B** ...

[[**H1.3.2C**]]

[[**H1.3.2D**]]

[[**H1.3.2E** *Buildings* must be constructed to ensure that their *building performance index* does not exceed 1.55.]

H1.3.3 Account must be taken of physical conditions likely to affect energy performance of *buildings*, including—

(a) the thermal mass of *building elements*; and

(b) the building orientation and shape; and

(c) the airtightness of the *building envelope*; and

Limits on application

Objective H 1.1 applies only when the energy is sourced from a *network utility operator* or a depletable energy resource.

[[Requirement H1.2(a) does not apply to *assembly service buildings*, *industrial buildings*, *outbuildings*, or *ancillary buildings*.]]

Requirement H1.2(c) applies only to *commercial buildings* and *communal non-residential buildings* whose floor area is greater than 300 m².

[Performance H1.3.2E applies only to *Housing*.]

Clause H1 was substituted, as from 29 December 2000, by regulation 5 Building Amendment Regulations 2000 (SR 2000/119).

Schedule 1 clause H1.2(a): substituted, on 1 February 2009, by regulation 5 of the Building (Building Code: Energy Efficiency of Temperature, Humidity, and Ventilation Systems) Amendment Regulations 2008 (SR 2008/97).

Schedule 1 clause H1.2(b): amended, on 1 February 2009, by regulation 4 of the Building (Building Code: Energy Efficiency of Domestic Hot Water Systems) Amendment Regulations 2008 (SR 2009/256).

Schedule 1 clause H1.3.2: revoked, on 31 October 2007, by regulation 5 of the Building Amendment Regulations (No 2) 2007 (SR 2007/226).

Schedule 1 clause H1.3.2A: revoked, on 30 June 2008, by regulation 6 of the Building Amendment Regulations (No 2) 2007 (SR 2007/226).

CLAUSE H1—ENERGY EFFICIENCY PROVISIONS (continued)

Provisions	Limits on application
<p>(d) the heat gains from services, processes and occupants; and</p> <p>(e) the local climate; and</p> <p>(f) heat gains from solar radiation.</p> <p>[[H1.3.4 Systems for the heating, storage, or distribution of hot water to and from sanitary fixtures or sanitary appliances must, having regard to the energy source used,—]]</p> <p>[[(a) limit the energy lost in the heating process; and]]</p> <p>[[(b) be constructed to limit heat losses from storage vessels and from distribution systems; and]]</p> <p>[[(c) be constructed to facilitate the efficient use of hot water.]]</p> <p>H.1.3.5 Artificial lighting fixtures must—</p> <p>(a) be located and sized to limit energy use, consistent with the <i>intended use</i> of space; and</p> <p>(b) be fitted with a means to enable light intensities to be reduced, consistent with reduced activity in the space.</p> <p>[[H1.3.6 HVAC systems must be located, constructed, and installed to—]]</p> <p>[[(a) limit energy use, consistent with the <i>intended use</i> of space; and]]</p> <p>[[(b) enable them to be maintained to ensure their use of energy remains limited, consistent with the <i>intended use</i> of space.]]</p>	<p>[[Performance H1.3.4(b) does not apply to individual storage vessels that are greater than 700 litres in capacity.]]</p> <p>[[Performance H1.3.4(c) applies only to <i>housing</i>.]]</p> <p>Performance H1.3.5 does not apply to lighting provided solely to meet the requirements of clause F6.</p> <p>[[Performance H1.3.6 applies only to <i>commercial buildings</i>.]]</p>

Schedule 1 clause H1.3.2B: revoked, on 30 June 2008, by regulation 6 of the Building Amendment Regulations (No 2) 2007 (SR 2007/226).

Schedule 1 clause H1.3.2C: revoked, on 30 September 2008, by regulation 7(1) of the Building Amendment Regulations (No 2) 2007 (SR 2007/226).

Schedule 1 clause H1.3.2C: inserted, on 30 June 2008, by regulation 6 of the Building Amendment Regulations (No 2) 2007 (SR 2007/226).

Schedule 1 clause H1.3.2D: revoked, on 30 September 2008, by regulation 7(1) of the Building Amendment Regulations (No 2) 2007 (SR 2007/226).

Schedule 1 clause H1.3.2D: inserted, on 30 June 2008, by regulation 6 of the Building Amendment Regulations (No 2) 2007 (SR 2007/226).

Schedule 1 clause H1.3.2E: inserted, on 30 September 2008, by regulation 7(1) of the Building Amendment Regulations (No 2) 2007 (SR 2007/226).

Schedule 1 clause H1.3.4: substituted, on 1 February 2009, by regulation 5 of the Building (Building Code: Energy Efficiency of Domestic Hot Water Systems) Amendment Regulations 2008 (SR 2009/256).

Schedule 1 clause H1.3.6: added, on 1 February 2009, by regulation 6 of the Building (Building Code: Energy Efficiency of Temperature, Humidity, and Ventilation Systems) Amendment Regulations 2008 (SR 2008/97).

Publications Referenced in Handbook and Compliance Documents

For the purposes of New Zealand Building Code compliance, acceptable reference documents include only the quoted edition and specific amendments as listed below.

Dates in brackets indicate that the Standard was reviewed and reissued without change that year.

Compliance Documents in which the particular references are quoted are identified by the relevant Building Code Clause and the number of the Verification Method or Acceptable Solution.

For example: **B1/VM1/AS3** indicates that the reference occurs in Verification Method 1, and Acceptable Solution 3 of the Compliance Document for Clause B1 Structure.

Where references are quoted in the Compliance Schedule Handbook, these are identified by the letters HB and the relevant section. For example: HB/SS 3 indicates that the reference occurs in the content guide for SS 3 in the Compliance Schedule Handbook.

Places where the reference documents are quoted, are more specifically identified by paragraph or table, in the reference list contained in each Compliance Document.

Contents	Page
Standards New Zealand	79
Standards Australia	91
British Standards Institution	95
New Zealand Publications (other than Standards)	98
Australian Publications (other than Standards)	100
Australia/New Zealand Publications (other than Standards)	100
British Publications (other than Standards)	101
International Publications	101
US Publications	103

Amend 11
Sep 2010

Standards New Zealand

NZS/BS 21: 1985 Specification for pipe threads for tubes and fittings where pressure-tight joints are made on the threads (metric dimensions)
Amend: 1

Amend 11
Sep 2010

Where quoted

G10/AS1, G14/VM1

		Where quoted
	NZS/BS 476:- Fire tests on building materials and structures	C/AS1
	Part 20: 1987 Method for determination of the fire resistance of elements of construction (general principles) <i>Amend: 6487</i>	C/AS1
	Part 21: 1987 Methods for determination of the fire resistance of loadbearing elements of construction	C/AS1
	Part 22: 1987 Methods for determination of the fire resistance of non-loadbearing elements of construction	C/AS1
	NZS/BS 970:- Specification for wrought steels for mechanical and allied engineering purposes	
	Part 1: 1991 General inspection and testing procedures and specific requirements for carbon, carbon manganese, alloy and stainless steels <i>Amend: 1</i>	E1/AS1
Amend 11 Sep 2010	NZS 1170: Structural Design Actions	B1/VM1, G12/AS2
	Part 5: 2004 Earthquake design actions – New Zealand standard	
	AS/NZS 1170: Structural Design Actions	
	Part 0: 2002 General principles <i>Amends: 1, 2 and 4</i>	B1/VM1/AS1/VM4, C/AS1, G12/AS2
	Part 1: 2002 Permanent, imposed and other actions <i>Amend: 1</i>	G10/AS1
	Part 2: 2002 Wind Actions <i>Amend: 1</i>	B1/VM1/AS1/VM4, G12/AS2
Amend 12 Oct 2011	Part 3: 2003 Snow and ice actions <i>Amend: 1</i>	B1/VM1/AS1/VM4, G12/AS2
	AS/NZS 1221: 1997 Fire hose reels <i>Amend: 1</i>	C/AS1
	AS/NZS 1254: 2002 Unplasticised PVC pipes and fittings for storm and surface water applications	E1/AS1
	AS/NZS 1260: 2002 PVC pipes and fittings for drain, waste and vent applications	SH/AS1
Amend 12 Oct 2011	AS/NZS 1260: 2009 PVC-U Pipes and fittings for drain, waste and vent application	E1/AS1, G13/AS1/AS2, G14/VM1
	NZS/BS 1387: 1985 Specification for screwed and socketed steel tubes (1990) and tubulars and for plain end steel tubes suitable for welding or screwing to BS 21 pipe threads <i>Amend: 1</i>	G10/AS1, G12/AS1, G14/VM1
	AS 1397: 2001 Steel sheet and strip – Hot-dipped zinc-coated or aluminium/zinc-coated	E1/AS1
	AS/NZS 1477: 2006 PVC pipes and fittings for pressure applications <i>Amend: 1</i>	G12/AS1, G14/VM1
Amend 11 Sep 2010	AS/NZS 1530:- Methods for fire tests on building materials, components and structures	
	Part 3: 1999 Simultaneous determination of ignitability, flame propagation, heat release and smoke release	C/AS1

Publications Referenced

NEW ZEALAND BUILDING CODE HANDBOOK

		Where quoted
Amend 12 Oct 2011	AS/NZS 1546: 2008 On-site domestic wastewater treatment units Part 1: Septic tanks	G14/VM1
	AS/NZS 1547: 2000 On-site domestic wastewater management	G13/VM4
	AS/NZS 1604: Specification for preservative treatment Part 3: 2002 Plywood	SH/AS1
	AS/NZS 1646: 2007 Elastomeric seals for waterworks purposes	G13/AS2
Amend 11 Sep 2010	NZS/AS 1657: 1992 Fixed platforms, walkways, stairways and ladders – Design, construction and installation (known as the SAA Code for fixed platforms, walkways, stairways, and ladders)	D1/AS1
	AS/NZS 1664:- Aluminium structures Part 1: 1997 Limit state design <i>Amend: 1</i>	B1/VM1
Amend 11 Sep 2010	AS/NZS 1668:- The use of ventilation and air conditioning in buildings Part 1: 1998 Fire and smoke control in multi-compartment buildings	C/AS1, F7/AS1
Amend 11 Sep 2010	AS/NZS 1680: Interior and workplace lighting Part 1: 2006 General principles and recommendations	F6/AS1
	AS/NZS 1730: 1996 Washbasins	G1/AS1
Amend 12 Oct 2011	AS/NZS 1734: 1997 Aluminium and aluminium alloys – Flat sheet, coiled sheet and plate	E1/AS1, E2/AS1 SH/AS1
	AS/NZS 1748: 1997 Timber – Stress graded – Product requirements for mechanically stress-graded timber	B1/VM1
Amend 11 Sep 2010	AS/NZS 1859 Reconstituted wood-based panels Part 1: 2002 Particleboard	SH/AS1
Amend 12 Oct 2011	AS/NZS 1905:- Components for the protection of openings in fire-resistant walls Part 1: 1997 Fire-resistant doorsets	HB/SS 15
	AS/NZS 2023: 1995 Baths for ablutionary purposes	G1/AS1
Amend 11 Sep 2010	AS/NZS 2032: 2006 Installation of PVC pipe systems <i>Amend: 1</i>	B1/AS1, E1/AS1, G12/AS1, G13/AS1/AS2/AS3, G14/VM1

	NZS/AS 2033: 2008 Installation of polyethylene pipe systems <i>Amend: 1, 2</i>	Where quoted B1/AS1, E1/AS1, G12/AS1, G13/AS1/AS2, G14/AS1
Amends 11 and 12		HB/SS 11
Amend 11 Sep 2010	AS/NZS 2243:1 2005 Safety in laboratories – Planning and operational aspects	HB/SS 11
Amend 12 Oct 2011	AS/NZS 2243:8 2006 Safety in laboratories – Fume cupboards	SH/AS1
	AS/NZS 2269: 2004 Plywood – Structural	E2/AS1
	AS/NZS 2269: 2008 Plywood – Structural	Modified 1 Aug 2011
Amend 12 Oct 2011		
Amends 11 and 12	AS/NZS 2280: 2004 Ductile iron pressure pipes and fittings <i>Amend: 1</i>	E1/AS1, G13/AS2
Amend 11 Sep 2010	AS/NZS 2293:- Emergency evacuation lighting for buildings Part 2: 1995 Inspection and maintenance	HB/SS 4
Amends 11 and 12	NZS 2295: 2006 Pliable, permeable building underlays	E2/AS1, SH/AS1
Amend 12 Oct 2011		
	AS/NZS 2566: 2002 Buried Flexible pipelines. Part 1: 1998 Structural Design Part 2: 2002 Installation	B1/AS1, E1/AS1 B1/AS1, E1/AS1, G13/AS2
Amend 11 Sep 2010	AS/NZS 2588: 1998 Gypsum plasterboard	SH/AS1
Amend 12 Oct 2011	AS/NZS 2642:- Polybutylene pipe systems	G12/AS1
Amends 11 and 12	Part 1: 2007 Polybutylene (PB) pipe extrusion compounds Part 2: 2008 Polybutylene (PB) pipe for hot and cold water applications	G12/AS1, G14/VM1
Amends 11 and 12	Part 3: 2008 Mechanical jointing fittings for use with polybutylene (PB) pipes for hot and cold water applications <i>Amend: 1</i>	G12/AS1, G14/VM1
Amend 11 Sep 2010	AS/NZS 2699: Built-in components for masonry construction. Part 1: 2000 Wall ties Part 2: 2000 Connectors and accessories Part 3: 2002 Lintels and shelf angles (durability requirements)	SH/AS1
	AS/NZS 2712: 2002 Solar and heat pump water heaters – design and (until 1 July 2009) construction	G12/AS2
	AS/NZS 2712: 2007 Solar and heat pump water heaters – design and construction	G12/AS2, SH/AS1

Publications Referenced

NEW ZEALAND BUILDING CODE HANDBOOK

		Where quoted
Amend 12 Oct 2011	AS/NZS 2728: 2007 Prefinished/prepainted sheet metal products for interior/exterior building applications	E2/AS1, SH/AS1
Amend 11 Sep 2010	– Performance requirements	
Amend 12 Oct 2011	AS/NZS 2845:- Water supply Part 1: 2010 Materials, design and performance requirements	G12/AS1
	AS/NZS 2904: 1995 Damp-proof courses and flashings	E2/AS1
Amend 11 Sep 2010	AS/NZS 2908: Cellulose-cement products Part 2: 2000 Flat sheet	E2/AS1, SH/AS1
	AS/NZS 2918: 2001 Domestic solid fuel burning appliances – installation	B1/AS3 C/AS1, SH/AS1
	AS/NZS 3000: 2007 Electrical installations <i>Amend: 1</i>	G9/VM1/AS1
	NZS 3101:- Concrete structures standard Part 1: 2006 The design of concrete structures <i>Amend: 1, 2</i>	B2/AS1 B1/VM1
	NZS 3106: 2009 Design of concrete structures for the storage of liquids	B1/VM1, G14/VM1
Amend 11 Sep 2010	NZS 3109: 1997 Specification for concrete construction <i>Amend: 1, 2</i>	B1/AS3, SH/AS1
	NZS 3112:- Methods of test for concrete Part 2: 1986 Tests relating to the determination of strength of concrete <i>Amend: 1, 2</i>	B1/AS3
Amend 11 Sep 2010	NZS 3114: 1987 Specification for concrete surface finishes <i>Amend: 1</i>	D1/AS1, G15/AS1
Amend 12 Oct 2011	NZS 3116: 2002 Concrete segmental and flagstone paving <i>Amend: 1</i>	D1/AS1
Amend 11 Sep 2010		
Amend 12 Oct 2011	AS/NZS 3350.2.35: 1999 Safety of household and similar electrical appliances – Particular requirements – Instantaneous water heaters <i>Amends: 1, 2</i>	G12/AS1, SH/AS1
Amend 11 Sep 2010	NZS 3404:- Steel structures standard Part 1: 1997 Steel structures standard <i>Amend: 1, 2</i>	B1/VM1
Amend 11 Sep 2010		

NEW ZEALAND BUILDING CODE HANDBOOK

Publications Referenced

			Where quoted
Amend 11 Sep 2010	AS/NZS 3500:- Part 1: 2003	National plumbing and drainage code Water services <i>Amend: 1</i>	G12/VM1/AS1
	Part 2: 2003	Sanitary plumbing and drainage <i>Amend: 1</i>	G13/AS1/VM2/AS2/ AS3
	Part 4: 2003	Heated water services <i>Amend: 1</i>	G12/VM1/AS1/AS2
	Part 5: 2003	Domestic installation	SH/AS1
	NZS 3501: 1976	Specification for copper tubes for water, gas, and sanitation <i>Amend: 1, 2 and 3</i>	G10/AS1, G13/AS1/AS2 G12/AS1
Amend 11 Sep 2010	NZS 3502: 1976	Specification for copper and copper alloy tubes for general engineering purposes	G10/AS1
	AS/NZS 3518: 2004	Acrylonitrile butadiene styrene (ABS) compounds pipes and fittings for pressure applications <i>Amend: 1</i>	G13/AS2, G14/VM1
Amend 12 Oct 2011			
Amend 12 Oct 2011	NZS/BS 3601: 1987 (1993)	Specification for carbon steel pipes and tubes with specified room temperature properties for pressure purposes <i>Amend: 1, 2</i>	G10/AS1
	NZS 3602:- Part 1: 2003	Timber and wood-based products for use in building	B2/AS1, E2/AS1 SH/AS1
Amend 12 Oct 2011	NZS 3603: 1993	Timber structures standard <i>Amend: 1, 2</i> (Applies to building work consented prior to 1 April 2007) <i>Amend: 1, 2, 4</i> (Applies to building work consented on or after 1 April 2007)	B1/VM1/VM4
	NZS 3604: 1990	Timber framed buildings	SH/AS1
	NZS 3604: 1999	Timber framed buildings <i>Amend: 1, 2</i>	G12/AS2
	NZS 3604: 2011	Timber framed buildings	B2/AS1, E1/AS1, G12/AS2, G13/AS2, SH/AS1
	NZS 3605: 2001	Timber piles and poles for use in building	B1/AS1/AS3, E2/VM1/AS1/AS2 G12/AS2
Amend 11 Sep 2010	NZS 3617: 1979	Specification for profiles of weatherboards, fascia boards, and flooring	B1/VM4, SH/AS1
Amend 11 Sep 2010	NZS 3622: 2004	Verification of timber properties <i>Amend: 1</i>	E2/AS1, SH/AS1
			B1/VM1, SH/AS1

Publications Referenced

NEW ZEALAND BUILDING CODE HANDBOOK

			Where quoted
Amend 12 Oct 2011	NZS 3631: 1988	New Zealand timber grading rules	SH/AS1
	NZS 3640: 2003	Chemical preservation of round and sawn timber <i>Amend: 1, 2</i>	B1/VM4
Amend 11 Sep 2010	NZS 3640: 2003	Chemical preservation of round and sawn timber <i>Amend: 4</i>	SH/AS1
Amend 12 Oct 2011	NZS 3640: 2003	Chemical preservation of round and sawn timber <i>Amend: 1, 2, 3, 4</i>	B2/AS1
	AS/NZS 3661:-	Slip resistance of pedestrian surfaces	D1/VM1/AS1
	Part 1: 1993	Requirements	D1/AS1
	Part 2: 1994	Guide to the reduction of slip hazards	
Amend 11 Sep 2010	AS/NZS 3666:-	Air-handling and water systems of buildings – Microbial Control	
Amend 11 Sep 2010	Part 1: 2002	Design, installation and commissioning	G4/AS1
Amend 11 Sep 2010	Part 2: 2002	Operation and maintenance	G4/AS1, HB/SS 9
	Part 3: 2000	Performance-based maintenance of cooling water systems	HB/SS 9
Amend 11 Sep 2010	NZS/AS 3725: 2007	Design for installation of buried concrete pipes	B1/VM1
	AS/NZS 3837: 1998	Method of test for heat and smoke release rates for materials and products using an oxygen consumption calorimeter	C/AS1
Amend 11 Sep 2010	AS/NZS 3869: 1999	Domestic solid fuel burning appliances – Design and construction	B1/AS3
	AS/NZS 3896: 1998	Waters – Examination for legionellae including <i>Legionella pneumophila</i> <i>Amend: 1</i>	HB/SS 9
Amend 12 Oct 2011	AS/NZS 4020: 2005	Testing of products for use in contact with drinking water	E2/AS1, G12/AS1
Amend 11 Sep 2010	AS/NZS 4058: 2007	Pre cast concrete pipes (pressure and non-pressure)	B1/VM1, E1/AS1, G13/AS2, G14/VM1
Amend 11 Sep 2010	NZS 4121: 2001	Design for access and mobility – Buildings and associated facilities	D1/AS1, G1/AS1, G5/AS1, SH/AS1
Amends 11 and 12	AS/NZS 4129: 2008	Fillings for polyethylene (PE) pipes for pressure applications	G12/AS1, G14/VM1
Amend 12 Oct 2011	AS/NZS 4130: 2003	Polyethylene (PE) pipe for pressure applications <i>Amend: 1</i>	E1/AS1
Amend 12 Oct 2011	AS/NZS 4130: 2009	Polyethylene (PE) pipe for pressure applications <i>Amend: 1</i>	G12/AS1, G13/AS2, G14/VM1
Amend 11 Sep 2010	AS/NZS 4200:	Pliable building membranes and underlays	SH/AS1
	Part 1: 1994	Materials <i>Amend: 1</i>	

Publications Referenced

NEW ZEALAND BUILDING CODE HANDBOOK

		Where quoted
Amend 11 Sep 2010	NZS 4230: 2004 Design of reinforced concrete masonry structures <i>Amend: 1</i>	B1/VM1
	NZS 4231: 1985 Specification for self-luminous exit signs <i>Amend: A</i>	F8/AS1
	NZS 4232:- Performance criteria for fire resisting enclosures Part 2: 1988 Fire resisting glazing systems	HB/SS 15 C/AS1
	NZS HB 4236: 2002 Masonary veneer wall cladding	E2/AS1
	NZS 4239: 1993 Automatic sliding door assemblies <i>Amend: A</i>	HB/SS 3
Amend 11 Sep 2010	NZS 4243: Energy efficiency – large buildings Part 1: 2007 Building thermal envelope Part 2: 2007 Lighting	H1/VM1/AS1 H1/VM1/AS1
	NZS 4246: 2006 Energy efficiency – Installing insulation in residential buildings	SH/AS1
Amend 12 Oct 2011	NZS 4251:- Solid plastering Part 1: 2007 Cement plaster for walls, ceilings and soffits	B1/AS1, B2/AS1, E2/AS1
Amend 11 Sep 2010	AS/NZS 4256: Plastic roof and wall cladding materials Part 2: 1994 Unplasticized polyvinyl chloride (uPVC) building sheets	E2/AS1, SH/AS1
Amend 12 Oct 2011	AS/NZS 4284: 2008 Testing of building facades	E2/VM1
	NZS 4297: 1998 Engineering design for earth buildings	B1/VM1, B2/AS1
	NZS 4298: 1998 Materials and workmanship for earth buildings <i>Amend: 1</i>	E2/AS2
Amend 11 Sep 2010	NZS 4299: 1998 Earth buildings not requiring specific design <i>Amend: 1</i>	B1/AS1, B2/AS1, E2/AS2
	NZS 4303: 1990 Ventilation for acceptable indoor air quality	G4/AS1
Amend 11 Sep 2010	NZS 4304: 2002 Health care waste management	G15/AS1
	NZS 4305: 1996 Energy efficiency – domestic type hot water systems	H1/AS1
	AS/NZS 4331: 1995 Metallic flanges Part 1: Steel flanges Part 2: Cast iron flanges Part 3: Copper alloy and composite flanges	G10/AS1, G14/VM1 G10/AS1, G14/VM1 G14/VM1
Amend 11 Sep 2010	NZS 4332: 1997 Non-domestic passenger and goods lifts	D2/AS1, F6/AS1, HB/SS 8
	AS/NZS 4401: 2006 High density polyethylene (PE-HD) pipes and fittings for soil and waste discharge (low and high temperature) systems inside buildings	G13/AS1, G14/VM1
Amend 11 Sep 2010		

		Where quoted
	NZS 4402:- Methods of testing soils for civil engineering purposes	B1/VM1
	Part 2:- Soil classification tests	
Amend 11 Sep 2010	Test 2.2: 1986 Determination of the liquid limit	B1/Defs, SH/AS1
	Test 2.6: 1986 Determination of the linear shrinkage	B1/Defs
	Part 4:- Soil compaction tests	
	Test 4.2.3: 1988 Related densities	B1/VM4
Amend 11 Sep 2010	NZS 4431: 1989 Code of practice for earth fill for residential development	B1/VM1, E2/AS2
	<i>Amend: 1</i>	SH/AS1
	NZS 4442: 1988 Welded steel pipes and fittings for water, sewage and medium pressure gas	E1/AS1, G13/AS2, G14/VM1
	AS/NZS 4455: 1997 Masonry units and segmental pavers	SH/AS1
	AS/NZS 4456: 2003 Masonry unit and segmental pavers – Methods of test	SH/AS1
	<i>Amend: 1, 2</i>	
	NZS 4503: 2005 Hand operated fire fighting equipment	C/AS1
Amend 11 Sep 2010		
Amend 12 Oct 2011	NZS 4510: 2008 Fire hydrant systems for buildings	C/AS1, HB/SS 6
Amend 11 Sep 2010	<i>Amend: 1</i>	
	NZS 4512: 2010 Fire detection and alarm systems in buildings	C/AS1, HB/SS 2, HB/SS 15, F7/AS1
	NZS 4515: 2009 Fire sprinkler systems for life safety in sleeping occupancies (up to 2000 m ²)	C/AS1, HB/SS 1, F7/AS1
	NZS 4520: 2010 Fire resistant doorsets	C/AS1
Amend 12 Oct 2011	AS/NZS 4534: 2006 Zinc and zinc/aluminium-alloy coatings on steel wire	E2/AS1
	NZS 4541: 2007 Automatic fire sprinkler systems	C/AS1, F7/AS1
	<i>Amend: 1</i>	HB/SS 1
	AS/NZS 4586: 2004 Slip resistance classification of new pedestrian surface materials	SH/AS1
Amend 11 Sep 2010	AS/NZS 4600: 2005 Cold-formed steel structures	B1/VM1
	NZS 4602: 1988 Low pressure copper thermal storage electric water heaters	G12/AS1
	<i>Amend: 1</i>	
Amend 11 Sep 2010	NZS 4603: 1985 Installation of low pressure thermal storage electric water heaters with copper cylinders (open vented systems)	G12/AS1, SH/AS1
	<i>Amend: 1</i>	

Publications Referenced

NEW ZEALAND BUILDING CODE HANDBOOK

			Where quoted
Amend 11 Sep 2010	NZS 4606:- Part 1: 1989	Storage water heaters General requirements <i>Amend: 1, 2, 3</i>	G12/AS1, SH/AS1
Amend 11 Sep 2010	Part 2: 1989	Specific requirements for water heaters with single shells <i>Amend: A</i>	SH/AS1
Amend 11 Sep 2010	Part 3: 1992	Specific requirements for water heaters with composite shells <i>Amend: A</i>	G12/AS1, SH/AS1
	NZS 4607: 1989	Installation of thermal storage electric water heaters: valve vented systems	G12/AS1
	NZS 4608: 1992	Control valves for hot water systems	G12/AS1
	NZS 4613: 1986	Domestic solar water heaters	G12/AS1/AS2
Amend 11 Sep 2010	NZS 4614: 1986	Installation of domestic solar water heating systems	G12/AS2
	NZS 4617: 1989	Tempering (3-port mixing) valves	G12/AS1
Amend 11 Sep 2010	AS/NZS 4671: 2001	Steel reinforcing materials	SH/AS1
Amend 12 Oct 2011	AS/NZS 4671: 2001	Steel Reinforcing Materials <i>Amend: 1</i>	B1/AS1/AS3
Amend 12 Oct 2011	AS/NZS 4680: 2006	Hot-dip galvanised (zinc) coating on fabricated ferrous articles	B1/AS3, E2/AS1, SH/AS1
	AS/NZS 4692: Part 2: 2005	Electric water heaters Minimum Energy Performance Standards (MEPS) requirements and energy labelling	G12/AS2
Amend 11 Sep 2010	AS/NZS 4740: 2000	Natural ventilaters – classification and performance	G4/AS1
	AS/NZS 4765: 2007	Modified polyvinyl chloride (PVC-M) pipes for pressure applications	G14/VM1
	AS/NZS 4858: 2004	Wet area membranes	E2/AS1
	AS/NZS 4859:- Part 1: 2002	Materials for the thermal insulation of buildings General criteria and technical provisions	H1/AS1
	AS/NZS 4936: 2002	Air admittance valves for use in sanitary plumbing and drainage systems.	G13/AS1, SH/AS1
	AS/NZS 5000.1 2005	Electric cables – Polymeric insulated – For working voltages up to and including 0.6/1 (1.2) kV <i>Amend: 1</i>	G12/AS1
Amend 11 Sep 2010	AS/NZS 5000.2 2006	Electric cables – Polymeric insulated Part 2: For working voltages up to and including 450/750 v.	G12/AS1
Amend 12 Oct 2011	AS/NZS 5065: 2005	Polyethylene and polypropylene pipe and fittings for drainage and sewerage applications <i>Amend: 1</i>	E1/AS1, G13/AS2

NEW ZEALAND BUILDING CODE HANDBOOK

Publications Referenced

	NZS/BS 5252: 1976 Framework for colour co-ordination for building purposes <i>Amend: 1</i>	Where quoted F8/AS1
	NZS 5261: 2003 Gas installation <i>Amend: 1, 2</i>	C/AS1, G4/AS1, G10/VM1/AS1, G11/AS1, SH/AS1
Amend 11 Sep 2010	NZS 5262: 2003 Gas appliance safety <i>Amend: 1</i>	SH/AS1
	NZS 5807:- Code of practice for industrial identification by colour, wording or other coding Part 2: 1980 Identification of contents of piping, conduit and ducts <i>Amend: 1, 2</i>	G10/AS1 G12/AS1
Amend 12 Oct 2011	NZS 6214: 1988 Thermostats and thermal cutouts for domestic thermal storage electric water heaters (alternating current only)	G12/AS1
Amend 11 Sep 2010		
Amends 11 and 12	NZS 6703: 1984 Code of practice for interior lighting design	G7/AS1/VM1 G8/VM1
Amend 11 Sep 2010	NZS 6742: 1971 Code of practice for emergency lighting in buildings	F8/AS1, HB/SS 4
Amend 11 Sep 2010	NZS 7601: 1978 Specification for polyethylene pipe (Type 3) for cold water services	G12/AS1, G14/VM1
Amend 11 Sep 2010	NZS 7602: 1977 Specification for polyethylene pipe (Type 5) for cold water services <i>Amend: 1</i>	G12/AS1
Amend 11 Sep 2010	NZS 7610: 1991 Blue polyethylene pipes up to nominal size 63 for below ground use for potable water <i>Amend: 1, 2, A</i>	G12/AS1
	NZS 7646: 1978 Specification for polyethylene pipes and fittings for gas reticulation	G10/AS1
	SNZ HB 8630: 2009 Tracks and outdoor visitor structures	B1/VM1
Amend 11 Sep 2010	AS/NZS 60335 Household and similar electrical Part 2.30: 2009 Safety appliance – Particular requirements for room heaters	SH/AS1

Standards Australia			Where quoted
	AS D26: 1972	Tube fittings with Dryseal American standard taper pipe and unified threads for automotive and industrial use	G10/AS1
Amend 12 Oct 2011			
	AS 1111:	ISO metric hexagon bolts and screws – Product grades A and B	SH/AS1
Amend 11 Sep 2010	Part 1: 2000	Bolts	
	Part 2: 2000	Screws	
Amend 11 Sep 2010	AS 1167:-	Welding and brazing – Filler metals	G10/AS1
Amend 12 Oct 2011	Part 1: 2005	Filler metal for brazing and braze welding	SH/AS1
	AS 1214: 1983	Hot-dip galvanised coatings on threaded fasteners (ISO metric coarse thread series)	
Amend 12 Oct 2011	AS 1229: 2002	Laundry troughs	G2/AS1
Amend 11 Sep 2010			
	AS 1273: 1991	Unplasticized PVC (uPVC) downpipe and fittings for rainwater	E1/AS1
	AS 1308: 1987	Electric water heaters – Thermostats and thermal cut-outs <i>Amend: 1</i>	G12/AS1
Amend 11 Sep 2010	AS 1357:-	Water valves for use with unvented water heaters	G12/AS1
	Part 1: 2009	Protection valves <i>Amend: 1, 2</i>	G12/AS1
	Part 2: 2005	Control valves <i>Amend: 1, 2</i>	
	AS 1366:-	Rigid cellular plastics sheets for thermal insulation	C/AS1
	Part 1: 1992	Rigid cellular polyurethane (RC/PUR) <i>Amend: 1</i>	
	Part 2: 1992	Rigid cellular polyisocyanurate (RC/PIR)	C/AS1
	Part 3: 1992	Rigid cellular polystyrene – moulded (RC/PS-M) <i>Amend: 1</i>	C/AS1, E2/AS1
Amends 11 and 12	Part 4: 1989	Rigid cellular polystyrene – extruded (RC/PS-E)	C/AS1, E2/AS1
	AS 1397: 2001	Steel sheet and strip – Hot-dip zinc-coated or aluminium/zinc-coated	B1/AS3, E2/AS1, SH/AS1
	AS 1432: 2004	Copper tubes for plumbing, gasfitting and drainage applications	G10/AS1
Amend 12 Oct 2011			
Amend 11 Sep 2010			

			Where quoted
	AS 1530:-	Methods for fire tests on building materials, components and structures	
Amend 11 Sep 2010	Part 1: 1994	Combustibility test for materials	C/AS1
	Part 2: 1993	Test for flammability of materials	C/AS1
Amend 12 Oct 2011	Part 4: 2005	Fire-resistance tests of elements of building construction	C/AS1
	AS 1566: 1997	Cooper and copper alloys – Rolled flat products	E2/AS1
Amend 11 Sep 2010	AS 1579: 2001	Arc welded steel pipes and fittings for water and waste water	E1/AS1, G13/AS2
Amend 11 Sep 2010	AS 1589: 2001	Copper and copper alloy waste fittings	G13/AS1
	AS 1646: 2007	Elastomeric seals for waterworks purposes	E1/AS1
	AS 1668:-	The use of mechanical ventilation and air-conditioning in buildings	G4/AS1
Amend 12 Oct 2011	Part 2: 2002	Ventilation design for indoor-air containment control <i>Amend: 1, 2</i>	G4/AS1
	AS 1670:-	Fire detection, warning, control and intercom systems – System design, installation and commissioning	
	Part 6: 1997	Smoke alarms	F7/AS1
	AS 1691: 1985	Domestic oil-fired appliances – installation	C/AS1
Amend 11 Sep 2010	AS 1741: 1991	Vitrified clay pipes and fittings with flexible joints – Sewerage quality	E1/AS1, G14/VM1
Amend 11 Sep 2010	AS 1804: 1976	Soft lead sheet and strip	E2/AS1, SH/AS1
	AS 1851: 2005	Maintenance of fire protection equipment	HB/SS 1, SS 2, SS 5, SS 9, SS 13, SS 15
Amend 12 Oct 2011	AS 1976: 1992	Vitreous china used in sanitary appliances	G1/AS1
	AS 2033: 2008	Installation of polyethylene pipe systems	G14/VM1, E1/AS1
Amend 11 Sep 2010	AS 2049: 2002	Roof tiles	E2/AS1, SH/AS1
	AS 2050: 2002	Installation of roof tiles	E2/VM1
Amend 12 Oct 2011	AS 2159: 1995	Rules for the design and installation of piling (known as the SAA Piling Code) <i>Amend: 1</i>	B1/VM4
	AS 2220:-	Emergency warning and intercommunication systems in buildings	
	Part 1: 1989	Equipment design and manufacture	C/AS1
	Part 2: 1989	System design, installation and commissioning	C/AS1

Amend 11
Sep 2010

Publications Referenced

NEW ZEALAND BUILDING CODE HANDBOOK

			Where quoted
Amend 11 Sep 2010	AS 2293:	Emergency escape lighting and exit signs for buildings	
	Part 1: 2005	System design, installation and operation	F6/AS1
Amend 12 Oct 2011		<i>Amend: 1</i>	
	Part 2: 1995	Inspection and maintenance	F6/AS1
Amend 12 Oct 2011		<i>Amend: 1,2</i>	
	Part 3: 2005	Emergency escape luminaires and exit signs	F6/AS1
Amend 12 Oct 2011		<i>Amend: 1</i>	
	AS 2845:-	Water supply – Mechanical backflow prevention devices	
	Part 3: 1993	Field testing and maintenance	G12/AS1, HB/SS 7
Amend 12 Oct 2011		<i>Amend: 1</i>	
Amend 11 Sep 2010	AS 2870: 1996	Residential slabs and footings – Construction	SH/AS1
	AS 2887: 1993	Plastic waste fittings	G13/AS1
	AS 2890:-	Parking facilities	
	Part 1: 2004	Off-street parking	D1/AS1
		<i>Amend: 1</i>	
Amend 12 Oct 2011	Part 2: 2002	Off-street commercial facilities	D1/AS1
		<i>Amend: 1</i>	
Amend 11 Sep 2010	AS 3566	Self-drilling screws for the building and construction industries	E2/AS1, SH/AS1
	Part 2: 2002	Corrosion resistance	
	AS 3571: 2009	Plastic piping systems – Glass reinforced thermoplastics (GRP) systems based on unsaturated polyester (UP) resin – pressure and non-pressure drainage and sewerage (ISO 10467: 2004 MOD)	G13/AS2
Amend 12 Oct 2011	AS 3588: 1996	Shower bases and shower modules	G1/AS1
	AS 3688: 2005	Water supply – Copper and copper alloy compression and capillary fittings and threaded end connectors	G10/AS1
Amend 12 Oct 2011		<i>Amend: 1,2</i>	
Amends 11 and 12	AS 3690: 2009	Installation of ABS pipe systems	G14/VM1
	AS 3706:-	Geotextiles – Methods of test	
Amend 11 Sep 2010	Part 1: 2003	General requirements, sampling, conditioning, basic physical properties and statistical analysis	E1/VM1
	AS 3730	Guide to the properties of paints for buildings	SH/AS1
	Part 6: 1991	Solvent-borne – Exterior – Full gloss enamel	
	Part 7: 1992	Latex – Exterior – Flat	
	Part 8: 1992	Latex – Exterior – Low gloss	
	Part 9: 1992	Latex – Exterior – Semi-gloss	
Amend 11 Sep 2010	Part 10: 1992	Latex – Exterior – Gloss	

NEW ZEALAND BUILDING CODE HANDBOOK

Publications Referenced

	AS 3730	Guide to the properties of paints for buildings	E2/AS1
	Part 6: 2006	Solvent-borne – Exterior – Full gloss enamel	E2/AS1
	Part 7: 2006	Latex – Exterior – Flat	E2/AS1
	Part 8: 2006	Latex – Exterior – Low gloss	E2/AS1
	Part 9: 2006	Latex – Exterior – Semi-gloss	E2/AS1
Amend 12 Oct 2011	Part 10: 2006	Latex – Exterior – Gloss	E2/AS1
	AS 3786: 1993	Smoke alarms	F7/AS1
Amend 12 Oct 2011		<i>Amend: 1, 2, 3, 4</i>	
Amend 11 Sep 2010	AS 4046	Methods of testing roof tiles	
Amend 12 Oct 2011	Part 9: 2002	Determination of dynamic weather resistance	E2/AS1
	AS 4072:-	Components for the protection of openings in fire-resistant separating elements	C/AS1
	Part 1: 2005	Service penetrations and control joints	C/AS1
Amend 12 Oct 2011			
Amend 11 Sep 2010	AS 4139: 2003	Fibre reinforced concrete pipes and fittings	G13/AS2
	AS 4178: 1994	Electromagnetic door holders	HB/SS 3
	AS 4276:-		
Amend 12 Oct 2011	Part 3.1: 2007	Water plate microbiology – Pour plate method using plate count agar	HB/SS 9
	AS 4290: 2000	Design and installation of revolving doors	HB/SS 3
		<i>Amend: 1, 2</i>	
	AS 5007: 2007	Powered doors for pedestrian access and egress	HB/SS 3
Amend 12 Oct 2011	AS 60188.4: 2007	Hearing aids – magnetic field strength in audio- frequency induction loops for hearing aid purposes	HB/SS 12

Where quoted

E2/AS1**E2/AS1****E2/AS1****E2/AS1****E2/AS1****E2/AS1****F7/AS1****E2/AS1****C/AS1****C/AS1****G13/AS2****HB/SS 3****HB/SS 9****HB/SS 3****HB/SS 3****HB/SS 12**

British Standards Institution			Where quoted
Amend 12 Oct 2011	BS 10: 2009	Specification for flanges and bolting for pipes, valves and fittings	G10/AS1
Amend 12 Oct 2011	BS 143, and BS 1256: 2000	Threaded pipe fittings in malleable cast iron and cast copper alloy <i>Amend: 1, 2, 3, 4</i>	G10/AS1, G14/VM1
	BSDD 175: 1988	Code of practice for the identification of potentially contaminated land and its investigation	F1/VM1
Amend 11 Sep 2010	BS 437: 2008	Specification for cast iron spigot and socket drain pipes and fittings <i>Amend: 5877</i>	G13/AS2
	BS 585:- Part 1: 1989	Wood stairs Specification for stairs with closed risers for domestic use, including straight and winder flights and quarter or half landings	D1/AS1
	BS EN 988: 1997	Zinc and zinc alloys. Specification for rolled flat products for building	E2/AS1
	BS EN 1044:1999	Brazing. Filler metals	G10/AS1
Amend 12 Oct 2011	BS EN 1172: 1997	Copper and copper alloys – sheet and strip for building	E1/AS1
	BS EN 1490: 2000	Building valves. Combined temperature and pressure relief valves. Tests and requirements	G12/AS1
	BS EN 1491: 2000	Building valves. Expansion valves. Tests and requirements	G12/AS1
	BS EN 1567: 1999	Building valves. Water pressure reducing valves and combination water reducing valves. Requirements and tests.	G12/AS1
Amend 11 Sep 2010	BS EN 1595: 1997	Pressure equipment made from borosilicate glass 3.3 – general rules for design, manufacture and testing	G14/VM1
Amend 12 Oct 2011			

			Where quoted
	BS EN 1759 Part 1: 2004	Flanges and their joints. Circular flanges for pipes, valves, fittings and accessories, class-designated. Steel flanges, NPS 1/2 to 24.	E1/AS1
Amend 11 Sep 2010			
Amend 11 Sep 2010			
Amend 12 Oct 2011			
Amend 11 Sep 2010	BS 2971: 1991	Specification for Class II arc welding of carbon steel pipework for carrying fluids	G14/VM1
Amend 12 Oct 2011	BS 3402: 1969	Specification for quality of vitreous china sanitary appliances	G1/AS1
	BS 3799: 1974 (1994)	Specification for steel pipe fittings, screwed and socket-welding for the petroleum industry	G10/AS1
Amend 11 Sep 2010			
	BS 4790: 1996	Method for determination of the effects of a small source of ignition on textile floor coverings (hot metal nut method)	C/AS1
Amend 11 Sep 2010			
	BS 4991: 1974 (1982)	Specification for propylene copolymer pressure pipe	G14/VM1
	BS 5287: 1996	Specification for assessment and labelling of textile floor coverings tested to BS 4790	C/AS1
	BS 5378:- Part 1: 1980	Safety signs and colours Specification for colour and design	F8/AS1
	BS 5395:- Part 2: 1984	Stairs, ladders and walkways Code of practice for the design of helical and spiral stairs	D1/AS1
	BS 5446:- Part 1: 1990	Components of automatic fire alarm systems for residential premises Specification for self-contained smoke alarms and point-type smoke detectors <i>Amends: 6863, 7648, 9628</i>	F7/AS1
Amend 11 Sep 2010			
	BS 6037:- Part 1: 2003 Part 2: 2004	Code of practice for the Planning, design, installation and use of permanently installed access equipment Suspended access equipment Travelling ladders and gantries	HB/SS 10 HB/SS 10
Amend 11 Sep 2010			

Publications Referenced

NEW ZEALAND BUILDING CODE HANDBOOK

		Where quoted
	BS 6374:- Lining of equipment with polymeric materials for the process industries	
	Part 1: 1985 Specification for lining with sheet thermoplastics	G14/VM1
	Part 2: 1984 Specification for lining with non-sheet applied thermoplastics	G14/VM1
	Part 3: 1984 Specification for lining with stoved thermosetting resins	G14/VM1
	Part 4: 1984 Specification for lining with cold curing thermosetting resins	G14/VM1
	Part 5: 1985 Specification for lining with rubbers	G14/VM1
	BS 6464: 1984 Specification for reinforced plastics pipes, fittings and joints for process plants	G14/VM1
	BS 6538: 1987 Air permeance of paper and board	E2/AS1
	Part 3: 1987 Method for determination of air permeance using the Garley apparatus	
	BS 6920:- Suitability of non-metallic products for use in contact with water intended for human consumption with regard to their effect on the quality of the water	
	Part 1: 2000 Specification	G12/AS1
Amend 11 Sep 2010	Part 2: 2000 Methods of tests	G12/AS1
	Part 3: 2000 High temperature tests	G12/AS1
Amend 12 Oct 2011	BS 7159: 1989 Code of practice for design and construction of glass-reinforced plastics (GRP) piping systems for individual plants or sites	G14/VM1
	BS 7777: 1993 Flat bottomed, vertical, cylindrical storage tanks for low temperature service	G14/VM1
	Part 1: Guide to the general provisions applying for design, construction and installation	
	Part 2: Specification for design and construction of single, double and full containment metal tanks for the storage of liquified gas at temperatures down to -165°C	
	Part 3: Recommendations for the design and construction of prestressed and reinforced concrete tanks and tank foundations and for the design and installation of tank insulation, tank lines and tank coating	
Amend 11 Sep 2010	BS 8004: 1986 Code of practice for foundations	B1/VM4
Amend 11 Sep 2010	BS EN 10241: 2000 Steel threaded pipe fittings	G10/AS1
Amend 12 Oct 2011	BS EN 10253-2: 2007 Butt-welding pipe fittings – non-alloy and ferric alloy steels with specific inspection requirements	G10/AS1

		Where quoted
Amend 12 Oct 2011	BS EN 10253-3: 2008 Butt-welding pipe fittings – wrought austenitic and austenitic-ferritic (duplex) stainless steels without specific inspection requirements	G10/AS1
Amend 11 Sep 2010	BS EN 12056-2: 2000 Gravity drainage systems inside buildings. Sanitary pipework, layout and calculation	G13/VM1
Amend 12 Oct 2011	BS EN 12285: Workshop fabricated steel tanks Part 1: 2003 Horizontal cylindrical single skin and double skin tanks for the underground storage of flammable and non-flammable water polluting liquids	G14/VM1
	Part 2: 2005 Horizontal cylindrical single skin and double skin tanks for the aboveground storage of flammable and non-flammable water polluting liquids	G14/VM1
	BS EN 12585: 1999 Glass plant, pipeline and fittings – Pipeline and fittings DN 15 to 1000 – compatibility and interchangeability	G14/VM1
Amend 12 Oct 2011	BS EN 13121-3: 2008 GRP tanks and vessels for use above ground. Design and workmanship <i>Amend: 1 (2010)</i>	G14/VM1
Amend 11 Sep 2010	BS EN 14324: 2004 Brazing. Guidance on the application of brazed joints	G10/AS1

New Zealand Publications

Building Research Association of New Zealand

Amend 11 Sep 2010	BRANZ Bulletin 330: 1995 Thin flooring materials – 2. Preparation and laying. Appendix 1	E2/AS1, SH/AS1
Amend 11 Sep 2010	BRANZ Bulletin 411: 2001 Recommended timber cladding profiles	E2/AS1, SH/AS1
	BRANZ EM 4: 2005 Evaluation method for jointing systems for flush finished fibre cement sheet	E2/AS1
	BRANZ EM 5: 2005 Evaluation method for adhesives and seam tapes for butyl and EPDM rubber membranes	E2/AS1
Amend 12 Oct 2011	BRANZ EM 6: 2011 Evaluation method for window and door support mechanisms or bars	E2/AS1
Amend 11 Sep 2010	BRANZ House Insulation Guide: 1995	E3/AS1, SH/AS1
	BRANZ Paper C1: 1978 A construction guide to home insulation (second edition)	E3/AS1
	BRANZ Technical paper P21: 1991 A wall bracing test and evaluation procedure	SH/AS1
Amend 11 Sep 2010	BRANZ Supplement to P21 An evaluation method of P21 test results for use with NZS 3604: 1990	SH/AS1
	BRANZ Technical paper P36: 1983 Food processing floors, a guide to design, materials and construction. W.R. Sharman	G3/AS1

Amend 11
Sep 2010

BRANZ Evaluation Method EM1 Structural joints – strength and stiffness evaluation

ALF 3: The 'Annual Loss Factor' Method. A design tool for energy efficient houses, 3rd edition (April 2000)
Albrecht Stoecklein and Mark Bassett

Cement & Concrete Association of New Zealand

CCANZ CP01: 2011 Code of Practice for weathertight concrete and concrete masonry construction

Master Plumbers, Gasfitters and Drainlayers NZ Inc and Water New Zealand

NZ Backflow testing standard 2011AS1 3.6.1 b), 3.7.2
Field testing of backflow prevention devices and verification of air gaps

New Zealand Metal Roofing Manufacturers Inc

New Zealand Metal Roof and Wall Cladding Code of Practice: 2008

The National Association of Steel Framed Housing Inc (NASH)

NASH Standard: Residential and Low Rise Steel Framing Part 1 2010
Design Criteria

Amend 12
Oct 2011

Government Departments and Agencies

Department of Labour

Workplace exposure standards and biological indices for
New Zealand: 1992

Ministry of Agriculture and Fisheries

MQ 1: 1988 Qual approvals manual

Ministry of Economic Development

NZECF 34: 2001 Electrical safety distances
NZECF 36: 1993 Harmonic levels
NZECF 51: 2004 Homeowner/occupier's electrical wiring work in domestic installations
NZECF 54: 2001 Installation of recessed luminaires and auxiliary equipment

Ministry of Health

Ministry of Health: 2005 Drinking Water Standards for New Zealand
Ministry of Health: 2006 Household water supplies: the selection, operation and maintenance of individual household water supplies

Amend 11
Sep 2010

Where quoted

SH/AS1

H1/Defs

E2/AS3

G12/AS1, HB/SS 7

E2/AS1

B1/AS1

F1/VM1, G4/VM1

G3/AS1

G9/VM1

G9/VM1

G9/AS1

C/AS1, G9/AS1

SH/AS1

SH/AS1

Ministry of Transport

Power Lift Rules: 1989

Rules for power lifts not exceeding 750 watts (one horsepower): 1985

Where quoted**D2/AS2, HB/SS 8****D2/AS2, HB/SS 8****SCION**Amend 12
Oct 2011

Measurement of moisture content of wood

E2/AS1**National Institute of Water and Atmospheric Research Ltd (NIWA)**Amend 11
Sep 2010Temperature Normals for New Zealand 1961-1990
by A I Tomlinson and J Sansom (ISBN 0478083343)**H1/Def5**Amend 12
Oct 2011**New Zealand Legislation**Amend 11
Sep 2010

Chartered Professional Engineers of New Zealand Act 2002

B1/VM1

Fencing of Swimming Pools Act 1987

F4/AS1Amend 12
Oct 2011

Fire Safety and Evacuation of Buildings Regulations 2006

C/AS1

Gas Regulations 1993

G12/AS1

Hazardous Substances and New Organisms Act 1996

F3/VM1

Hazardous Substances (Classification) Regulations 2001

F3/VM1

Hazardous Substances (Classes 1 to 5 Controls) Regulations 2001

F3/VM1Hazardous Substances (Dangerous Goods and Scheduled
Toxic Substances) Transfer Notice 2004**F3/VM1**Amend 11
Sep 2010

Hazardous Substances (Disposal) Regulations 2001

G14/VM1

Hazardous Substances (Emergency Management) Regulations 2001

F3/VM1

Health & Safety in Employment Act 1992

HB/SS 9Amend 11
Sep 2010

Plumbers, Gasfitters, and Drainlayers Act 2006

SH/AS1

Resource Management Act 1991

E1/VM1, G14/VM1Amend 11
Sep 2010Resource Management (National Environment Standards relating
to certain Pollutants, Dioxins and other Toxins)
Regulations: 2004 (NESAQ)**SH/AS1****New Zealand Geomechanics Society**Guidelines for the field descriptions of soils and rocks in engineering
use. Nov 1988**B1/VM1**Amend 12
Oct 2011**Australian Publications****Building Control Commission, State of Victoria, Australia**Smoke management in large spaces in buildings: 1998
Milke and Klotz**C/AS1**

	Where quoted
Australia/NZ Publications	
Australian and New Zealand Environment and Conservation Council	
Guidelines for assessment and management of contaminated sites: 1992	F1/VM1
British Publications	
Building Research Establishment (UK)	
BRE Defect action sheet DAS 131: May 1989 External walls: Combustible external plastics insulation: Horizontal fire barriers	C/AS1
BRE Report 135: 1988 Fire performance of external thermal insulation for walls in multi-storey buildings. Rogowski B.F., Ramaprasad R., Southern J.R.	C/AS1
BRE Report 186: 1990 Design principles for smoke ventilation in enclosed shopping centres. Morgan and Gardner	C/AS1
BRE Report 258: 1992 Design approaches for smoke control in atrium buildings. Hansell and Morgan	C/AS1
Chartered Institution of Building Services Engineers, London	
CIBSE Code Series A: 1996 Air distribution systems	G4/VM1/AS1
International Publications	
EIFS Industry Members Association	
EIMA 101.91: 1992 Standard Guide for resin of resin coated glass fibre mesh in exterior insulation and finish systems (EIFS), Class PB.	E2/AS1
The European Committee for Standardisation	
EN 81:- Safety rules for the construction and installation of lifts	
Part 1: 1998 Electric lifts	D2/AS1, HB/SS 8
Part 2: 1998 Hydraulic lifts	D2/AS1, HB/SS 8
EN 115: 1983 Safety rules for the construction of escalators and passenger conveyors	D2/AS3, HB/SS 8
EN 12380: 1999 Air admittance valves for drainage systems – Requirements and test methods	G13/AS1
Eurocode DD ENV 1991-2-2: 1996	
Eurocode 1: Basis of design actions on structures	
Part 2.2: Actions on structures exposed to fire	C/AS1

Amend 11
Sep 2010

International Standards Organisation, Geneva

ICBO Evaluation Services Inc AC148: Acceptance criteria for flashing materials

ISO 140/VII: 1978 Field measurements of impact sound insulation of floors

Amend 11
Sep 2010

ISO 9223: 1992 Corrosion of metals and alloys; corrosivity of atmospheres; classification

Amend 11
Sep 2010

ISO 11600: 2002 Building Construction – Jointing products
Classification and requirements for sealants

Amend 11
Sep 2010

ISO/TS 15510: 2003 Stainless steels – chemical composition

Amend 12
Oct 2011

World Health Organisation/Food and Agriculture Organisation

Environmental Health Criteria 70

“Environment health criteria” for various chemicals

Evaluation of certain food additives and contaminants, Technical report series 776
Geneva: 1989

IARC Monographs on the evaluation of carcinogenic risks to humans for individual chemicals, groups of chemicals, or processes. Published by the International Agency for Research on Cancer

Principles for the safety assessment of food additives and contaminants in food,
Geneva: 1987

Where quoted

E2/AS1

G6/VM1

E2/AS1

E2/AS1, SH/AS1

E2/AS1, SH/AS1

F1/VM1

F1/VM1

F1/VM1

F1/VM1

		Where quoted
	United States of America Publications	
	American National Standards Institute and	
	American Society of Mechanical Engineers	
	ANSI/ASME B16.1: 1989 Cast iron pipe flanges and flanged fittings, Class 25, 125, 250 and 800	G10/AS1
Amend 11 Sep 2010	ANSI/ASME B16.3: 1985 Malleable-iron threaded fittings, Classes 150 and 300	G10/AS1
Amend 11 Sep 2010	ANSI/ASME B16.5: 1988 Pipe flanges and flanged fittings, steel-nickel alloy and other special alloys	G10/AS1
	ANSI/ASME B16.9: 1990 Factory-made wrought steel butt-welding fittings	G10/AS1
	ANSI B16.11: 1980 Forged steel fittings, socket-welding and threaded	G10/AS1
Amend 11 Sep 2010	American Petroleum Institute	
	API SPEC 5L: 1991 Specification for line pipe	G10/AS1
Amend 11 Sep 2010	API STD 1104: 1988 Welding of pipelines and related facilities	G10/AS1
	American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE)	
	Design of smoke management systems. Klotz and Milke 1992	C/AS1
	American Society of Sanitary Engineers	
	ASSE 1050: 1991 Performance requirements for air admittance valves for plumbing DWV systems stack type devices	G13/AS1
	ASSE 1051: 1992 Performance requirements for air admittance valves for plumbing drainage systems	G13/AS1
	American Society for Testing and Materials	
Amend 11 Sep 2010	ASTM A 53 – 90a Specification for pipe, steel, black and hot-dipped, zinc-coated welded and seamless	G10/AS1
	ASTM A 106 – 91a Specification for seamless carbon steel pipe for high temperature service	G10/AS1
Amend 12 Oct 2011		

		Where quoted
	ASTM D 1143: 1981 Test method for piles under static axial compressive load	B1/VM4
Amend 12 Oct 2011		
Amends 11 and 12	ASTM C 1549: 2009 Standard Test Method for Determination of Solar Reflectance Near Ambient Temperature Using a Portable Solar Reflectometer	SH/AS1
	ASTM C 1549: 2009 Standard Test Method for Determination of Solar Reflectance Near Ambient Temperature Using a Portable Solar Reflectometer	E2/AS1
Amend 12 Oct 2011	ASTM D 1667: 2005 Standard Test Specification for Flexible Cellular Materials – Vinyl Chloride Polymers and Copolymers (Closed-cell foam)	E2/AS1
	ASTM D 2240: 2005 Standard Test method for Rubber Property	E2/AS1
Amend 12 Oct 2011	ASTM D 6134: 1997 Standard Specification for Vulcanised Rubber Sheets Used in Waterproofing Systems	SH/AS1
Amend 11 Sep 2010	ASTM D 6134: 2007 Standard Specification for Vulcanised Rubber Sheets Used in Waterproofing Systems	E2/AS1
Amend 12 Oct 2011	ASTM E 96: 1992 Standard test methods for water vapour transmission of materials	SH/AS1
	ASTM E 96: 2005 Standard test methods for water vapour transmission of materials	E2/AS1
Amend 12 Oct 2011	ASTM E104: 2002 Standard Practice for Maintaining Constant Relative Humidity by Means of Aqueous Solutions	E2/AS1
	ASTM E 336: 1990 Method for measurement of airborne sound insulation in buildings	G6/VM1
	ASTM E 413: 1987 Classification for rating sound insulation	G6/VM1
	ASTM E 492: 1990 Test method for laboratory measurement of impact sound transmission through floor-ceiling assemblies using a tapping machine	G6/VM1
Amends 10 and 11	ASTM E 903: 1996 Standard Test Method for Solar Absorbance, Reflectance, and Transmittance of Materials Using Integrating Spheres	SH/AS1
	ASTM E 989: 1989 Classification for determination of impact insulation class (IIC)	G6/VM1
	ASTM E 2098: 2000 Standard Test Method for Determining Tensile Breaking Strength of Glass Fibre Reinforcing Mesh for Use in Class PB Exterior Insulation and Finish Systems (EIFS), after Exposure to a Sodium Hydroxide Solution	E2/AS1

Publications Referenced

NEW ZEALAND BUILDING CODE HANDBOOK

		Where quoted
	ASTM E 2134: 2001 Standard Test Method for Evaluation the Tensile-Adhesion Performance of an Exterior Insulation and Finish System (EIFS)	E2/AS1
Amend 12 Oct 2011	ASTM G 154: 2006 Standard Practice for Operating Fluorescent Light Apparatus for UV Exposure of Nonmetallic Materials	E2/AS1
Amend 12 Oct 2011	ASTM G 155: 2005 Standard Practice for Operating Xenon Arc Light Apparatus for UV Exposure of Nonmetallic Materials	E2/AS1
	International Conference of Building Officials, America	
	Uniform Building Code Standard 4.1: 1997 Proscenium fire safety curtains	C/AS1
	Uniform Building Code Standard 26-2: 1997 Test method for the evaluation of thermal barriers	C/AS1
	National Fire Protection Association of America	
Amend 11 Sep 2010	NFPA 92B: 1995 Guide for smoke management systems in malls, atria and large areas	C/AS1
	NFPA 285: 1998 Standard method of test for the evaluation of flammability characteristics of exterior non load bearing wall assemblies containing components using the intermediate scale, multi-storey test apparatus	C/AS1
	United States Environmental Protection Agency (EPA)	
	USEPA SW 846: 1986 Test methods for evaluating solid waste	F1/VM1
	EPA/540/1 – 89/002: 1989 Risk assessment guidance for Superfund, Vol 1. Human health evaluation manual (Part A) Interim final. Prepared by USEPA Office of Emergency and Remedial Response	F1/VM1
Amend 11 Sep 2010	Federal Specification Standard TT-S-00230C: Elastomeric type, cold applied single component for caulking, sealing, and glazing in buildings, building areas (plazas, decks, pavements, and other structures)	E2/AS1, SH/AS1
	Cross-connection Control Manual: 1989	HB/SS 7

United States Public Health Service

Toxicological profiles on individual chemicals. Prepared by the Agency for Toxicological Substances and Disease Registry, in collaboration with the US Environmental Protection Agency

Where quoted**F1/VM1****Miscellaneous Publication**

Casarett and Doull's Toxicology. The basic science of poisons. 4th ed. Macmillan. New York 1991. Klassen CD, Amdur MO, Doull J (Eds)

F1/VM1

Definitions

Many of the definitions in this section come from the Building Act 2004, regulations, including the Building Code, and Compliance Documents. Although every effort has been made to ensure definitions are accurate at the time of publication, it is possible that definitions may become out of date as changes occur to the legislation and Compliance Documents. In the event there is any discrepancy between the definitions in this section and the definitions in the legislation or Compliance Documents, the definitions in the legislation and Compliance Documents will prevail.

Note that some legislation and Compliance Documents may contain different definitions for the terms listed below. When using particular legislation or a Compliance Document, reference should be made to the definitions provided in that document.

Source Key:

BA04	Building Act 2004
BR1	Building Regulations 1992
BR2	Building (Specified Systems, Change the Use, and Earthquake-prone Buildings) Regulations 2005
Code	New Zealand Building Code
EA	Electricity Act 1992
FSA	Fire Service Act 1975
HB	Handbook
HSNOA	Hazardous Substances and New Organisms Act 1996
LGA	Local Government Act 1974 or 2002
PGDA	Plumbers, Gasfitters, and Drainlayers Act 1976
RA	Railway Act 2005
RMA	Resource Management Act 1991
CD-(Code clause)	Compliance Document for given Code clause (eg, CD-G13)
DG	Building Consent Authority Development Guide
Simple House	Simple House Acceptable Solution

Amend 11
Sep 2010

Definition	Source
A	
Abutment The part of the valley side against which the <i>dam</i> is constructed.	DG
Acceptable risk The level of risk the public is prepared to accept without further management. The risk is the combination of the probability and the consequence of a specified hazardous event.	DG
Acceptable Solution means a solution that must be accepted as complying with the <i>Building Code</i> .	BA04
Access chamber A chamber with working space at <i>drain</i> level through which the <i>drain</i> passes either as an open channel or as a pipe incorporating an <i>inspection point</i> .	CD-E1, CD-G13
Access point A place where access may be made to a <i>drain</i> or <i>discharge pipe</i> for inspection, cleaning or maintenance; and may include a <i>cleaning eye</i> , <i>inspection point</i> , <i>rodding point</i> , <i>inspection chamber</i> or <i>access chamber</i> .	CD-G13
Access route A continuous route that permits people and goods to move between the apron or <i>construction edge</i> of the <i>building</i> to spaces within a <i>building</i> , and between spaces within a <i>building</i> .	Code

Definition	Source
Accessible Having features to permit use by <i>people with disabilities</i> .	Code
Accessible route An <i>access route</i> usable by <i>people with disabilities</i> . It shall be a continuous route that can be negotiated unaided by a wheelchair user. The route shall extend from street <i>boundary</i> or car parking area to those spaces within the <i>building</i> required to be <i>accessible</i> to enable <i>people with disabilities</i> to carry out normal activities and processes within the <i>building</i> .	Code
Accessible stairway A <i>stairway</i> having features for use by a <i>person with a disability</i> . <i>Buildings</i> required to be <i>accessible</i> shall have at least one <i>accessible stairway</i> leading off an <i>accessible route</i> whether or not a lift is provided.	CD-C
Accreditation certificate means a certificate that was issued by the Building Industry Authority under the Building Act 1991.	HB
COMMENT: <i>Accreditation certificates</i> have become product certificates under the <i>Building Act 2004</i> and are subject to the product certification scheme under the <i>Building Act 2004</i> .	
Active conductor Any conductor in which the electrical potential differs from that of a neutral conductor or earth.	CD-F8
Adequate means <i>Adequate</i> to achieve the objectives of the <i>Building Code</i> .	Code
Adjacent building A nearby <i>building</i> , including an adjoining <i>building</i> , whether or not erected on <i>other property</i> .	Code
Air gap The vertical distance through air between the lowest point of the water supply outlet and the <i>flood level rim</i> of the equipment or the <i>fixture</i> into which the outlet discharges.	CD-G12
Air admittance valve A valve that allows air to enter but not to escape in order to limit pressure fluctuations within the sanitary plumbing or drainage system.	CD-G13
Air seal A continuous seal fitted between a window or door reveal and the surrounding wall <i>framing</i> to prevent the flow of air into the interior of the <i>building</i> .	CD-E2
Allotment has the meaning given to it by section 10 of the <i>Building Act 2004</i> . Section 10 states: “(1) In this Act, unless the context otherwise requires, allotment means a parcel of land— (a) that is a continuous area of land; and (b) whose boundaries are shown on a survey plan, whether or not as a subdivision— (i) approved by way of a subdivision consent granted under the Resource Management Act 1991; or (ii) allowed or granted under any other Act; and (c) that is— (i) subject to the Land Transfer Act 1952 and comprised in 1 certificate of title or for which 1 certificate of title could be issued under that Act; or (ii) not subject to that Act and was acquired by its owner under 1 instrument of conveyance	BA04

Definitions

NEW ZEALAND BUILDING CODE HANDBOOK

Definition	Source
<p>(2) For the purposes of subsection (1), an allotment is taken—</p> <p>(a) to be a continuous area of land even if part of it is physically separated from any other part by a road or in any other manner, unless the division of the allotment into those parts has been allowed by a subdivision consent granted under the Resource Management Act 1991 or a subdivision approval under any former enactment relating to the subdivision of land:</p> <p>(b) to include the balance of any land from which any allotment is being or has been subdivided.”</p>	
Alter in relation to a <i>building</i> , includes to rebuild, re-erect, repair, enlarge and extend the <i>building</i> .	BA04
Alternative solution means a solution that is compliant with the <i>Building Code</i> but is not part of the <i>Compliance Document</i> .	HB
Aluminium flashings Aluminium <i>flashings</i> shall be a minimum thickness of 0.7 mm, and formed from 5000 series in accordance with AS/NZS 1734 and, where pre-painted, have a factory-applied finish complying with AS/NZS 2728.	Simple House
Aluminium-zinc coated steel flashings Aluminium-zinc coated steel flashings shall be:	Simple House
<p>(a) BMT 0.55 mm minimum of steel for <i>flashings</i> generally</p> <p>(b) BMT 0.4 mm of steel for roll-formed roll-top ridge <i>flashings</i></p> <p>(c) in aluminium-zinc coating of AZ150 to AS 1397, with a factory-applied finish in accordance with AS/NZS 2728 Type 4, and in sea spray zone and corrosion zone 1 the factory-applied finish shall be Type 5 minimum.</p>	
Amenity means an attribute of a <i>building</i> which contributes to the health, physical independence, and well being of the <i>building's</i> users but which is not associated with disease or a specific illness.	Code
Anti-ponding board A board laid under the lowest row of concrete and clay roof tiles and supports the <i>roof underlay</i> . The board is sloped to ensure moisture under the tiles is directed to the exterior of the roof.	CD-E2
Appliance hearth A layer of <i>non-combustible</i> material under or near an appliance. It may be either part of the <i>building</i> structure or an overlay on a <i>combustible</i> floor.	CD-C
Approved temperature data means the temperature data contained in A I Tomlinson and J Sansom, <i>Temperature Normals for New Zealand for period 1961 to 1990</i> (NIWA, ISBN 0478083343).	Code CD-H1
Appurtenant structure , in relation to a <i>dam</i> , means a structure that is integral to the proper functioning of the <i>dam</i> .	BA04
Apron flashing A near flat or sloping <i>flashing</i> with a vertical upstand, used at junctions between roofs and walls.	CD-E2

Amend 11
Sep 2010Amend 11
Sep 2010

Definition

Source

Asbestos as defined by the Health and Safety in Employment (Asbestos) Regulations 1983 means:

CD-F2

- (a) Actinolite, amosite, chrysotile, crocidolite, fibrous anthophyllite, or tremolite; or
- (b) A mixture containing a mineral specified in paragraph (a) of this definition; or
- (c) A material that is composed wholly or partly of any such mineral; or
- (d) A material or article that is contaminated by any such material.

COMMENT:

Asbestos now has the meaning given to it by Regulation 2 of the Health and Safety in Employment (Asbestos) Regulations 1998. This meaning is:

- (a) Amosite, chrysotile, crocidolite, fibrous actinolite, fibrous anthophyllite, or fibrous tremolite; or
- (b) A mixture containing a mineral specified in paragraph (a); or
- (c) A material that is composed wholly or partly of a mineral specified in paragraph (a); or
- (d) A material or article that is contaminated by a mineral specified in paragraph (a):

Atmospheric burner A burner system where all the air for combustion is induced by the inspiring effect of a gas injector and/or by natural draught in the combustion chamber without mechanical assistance.

CD-G4

Attached garage A garage that shares a common *wall* or *walls* with a habitable *building*, and is enclosed by *roof* and *wall claddings* that are continuous with the habitable part of the *building*.

CD-E2

Amend 12
Oct 2011

Authority means the Building Industry Authority that was established under the Building Act 1991.

HB

COMMENT:

The Authority was dissolved under the *Building Act 2004* and its functions and powers transferred to the Department of Building and Housing.

B

Backcountry hut means a building that—

Code

- (a) is located on land that is administered by the Department of Conservation for conservation, recreational, scientific, or other related purposes, including any land administered under any of the following:
 - (i) the Conservation Act 1987;
 - (ii) the National Parks Act 1980;
 - (iii) the Reserves Act 1977; and
- (b) is intended to provide overnight shelter to any person who may visit and who carries his or her own food, bedding, clothing, and outdoor equipment; and
- (c) contains only basic facilities, which may include (but are not limited to) any or all of the following:
 - (i) sleeping platforms or bunks;
 - (ii) mattresses;
 - (iii) food preparation surfaces;

Amend 11
Sep 2010

Definitions

NEW ZEALAND BUILDING CODE HANDBOOK

Definition	Source
<ul style="list-style-type: none"> (iv) appliances for heating; (v) appliances for cooking; (vi) toilets; and <p>(d) has been certified by the Director-General as being in a location that wheelchair users are unlikely to be able to visit; and</p> <p>(e) is intended to be able to sleep—</p> <ul style="list-style-type: none"> (i) no more than 20 people in its <i>backcountry hut sleeping area</i>; and (ii) no more than 40 people in total; and <p>(f) does not contain any connection, except by <i>radiocommunications</i>, to a <i>network utility operator</i></p>	
<p>Backcountry hut sleeping area means the area of a backcountry hut that contains sleeping platforms, bunks, or beds that are—</p> <ul style="list-style-type: none"> (a) within the same room as a food preparation or eating area; or (b) in a fully enclosed room that is separate from any food preparation or eating area and has— <ul style="list-style-type: none"> (i) internal walls that limit the spread of fire; and (ii) the means of direct egress to outside the hut. 	Code
<p>Backflow A flowing back or reversal of the normal direction of the flow caused by <i>back-pressure</i> and includes <i>back-siphonage</i>.</p>	CD-C
<p>Backflow prevention device A device that prevents <i>backflow</i>.</p>	CD-C, CD-G12
<p>Backing rod Closed cell polyethylene foam (PEF) rod inserted into gap to provide backing support for foam <i>air seal</i> or <i>sealant</i>.</p>	Simple House
<p>Back-pressure A <i>backflow</i> condition caused by the downstream pressure becoming greater than the supply pressure.</p>	CD-G12
<p>Back-siphonage <i>Backflow</i> condition caused by the supply pressure becoming less than the downstream pressure.</p>	CD-G12
<p>Baluster A post providing the support for the top and bottom rails of a barrier.</p>	CD-B1, CD-B2
<p>Baluster An infill member that provides support for the top and bottom rails of a barrier.</p>	Simple House
<p>Balustrade The infill parts of a barrier (typically between floor and top rail).</p>	CD-B2, CD-F4
<p>Basement Any <i>firecell</i> or part of a <i>firecell</i> below the level of the lowest <i>final exit</i>.</p>	CD-C
<p>COMMENT:</p> <p>Because <i>fire safety precautions</i> are increased with increases in <i>escape height</i>, the precautions for <i>basements</i> increase with <i>basement</i> depth. Thus a single floor <i>building</i> with one <i>basement</i> level is treated as a two floor <i>building</i>, a single floor <i>building</i> with three <i>basement</i> levels as a four floor <i>building</i> and the requirements of C/AS1 Table 4.1 shall be applied downwards as opposed to upwards for levels above ground.</p>	
<p>Base metal thickness (BMT) The thickness of the bare or base metal before any subsequent coating, such as galvanizing.</p>	CD-E2
<p>Batten See ceiling batten, tile batten.</p>	Simple House

Definition	Source
<p>Bird's beak A double fold applied to the edge of a horizontal metal <i>flashing</i> to stiffen the edge and to assist in deflecting moisture away from the <i>cladding system</i> below. Refer also <i>Kick-out</i> and <i>Drip edge</i>.</p> <p>COMMENT: A <i>bird's beak</i> is used at the bottom of a <i>capping</i> to deflect water away from the <i>enclosed balustrade cladding</i>.</p>	CD-E2
<p>Blocking Solid timber having the same depth as the joists and set at right angles between the joists to stiffen and prevent them from buckling.</p>	Simple House
<p>Bond, running or stretcher The <i>bond</i> when the units of each course overlap the units in the preceding course by between 25% and 75% of the length of the units.</p>	Simple House
<p>Bottom plate A plate placed under the bottom end of <i>studs</i>.</p>	Simple House
<p>Boundary means any <i>boundary</i> which is shown on a survey plan approved by the Chief Surveyor and which is deposited in the Titles Office whether or not a new title has been issued.</p>	CD-C
<p>Boundary joist A joist running along the outer ends of the floor joists.</p>	CD-B1
<p>Bracing Any method employed to provide lateral support to a <i>building</i>.</p>	Simple House
<p>Bracing capacity Strength of <i>bracing</i> of a whole <i>building</i> or of elements within a <i>building</i>. <i>Bracing capacity</i> is measured in <i>bracing units</i> (BUs).</p>	Simple House
<p>Bracing demand The horizontal forces to be resisted by a whole <i>building</i> or by an element within a <i>building</i>. These horizontal forces are a result of wind or earthquake action. <i>Bracing demand</i> forces are measured in <i>bracing units</i> (BUs).</p>	Simple House
<p>Bracing line A line along or across a <i>building</i> containing <i>wall bracing elements</i>.</p>	Simple House
<p>Bracing rating The lateral load resistance assigned, for example, to a <i>wall bracing system</i>.</p>	Simple House
<p>Bracing unit (BU) A <i>bracing unit</i> is a measure of:</p> <p>(a) the horizontal force (<i>bracing demand</i>) on the <i>building</i> (1 kiloNewton is equal to 20 bracing units)</p> <p>(b) the resistance to horizontal force (<i>bracing capacity</i>) of <i>building elements</i>.</p>	Simple House
<p>Branch discharge pipe A <i>discharge pipe</i> that serves one or more <i>fixture discharge pipes</i> for any one floor.</p>	CD-G13
<p>Branch vent pipe A <i>vent pipe</i> that serves two or more <i>fixture vent pipes</i>.</p>	CD-G13
<p>Building has the meaning given to it by sections 8 and 9 of the <i>Building Act 2004</i>. Section 8 states: "8 Building: what it means and includes: (1) In this Act, unless the context otherwise requires, building— (a) means a temporary or permanent movable or immovable structure (including a structure intended for occupation by people, animals, machinery, or chattels); and</p>	BA04

Amend 11
Sep 2010Amend 11
Sep 2010

Definition

Source

- (b) includes—
- (i) a mechanical, electrical, or other system; and
 - (ii) a fence as defined in section 2 of the Fencing of Swimming Pools Act 1987; and
 - 2(1) of the Land Transport Act 1998) that is immovable and is occupied by people on a permanent or long term basis; and
 - (iii) a vehicle or motor vehicle (including a vehicle or motor vehicle as defined in section
 - (iv) a mast pole or a telecommunication aerial that is on, or forms part of, a building and that is more than 7 m in height above the point of its attachment or base support (except a dish aerial that is less than 2 m wide); and
- (c) includes any 2 or more buildings that, on completion of building work, are intended to be managed as one building with a common use and a common set of ownership arrangements; and
- (d) includes the non-moving parts of a cable car attached to or servicing a building; and
- (e) after 30 March 2008, includes the moving parts of a cable car attached to or servicing a building
- (2) Subsection (1)(b)(i) only applies if—
- (a) the mechanical, electrical, or other system is attached to the structure referred to in subsection (1)(a); and
 - (b) the system—
 - (i) is required by the Building Code; or
 - (ii) if installed, is required to comply with the Building Code.
- (3) Subsection (1)(c) only applies in relation to—
- (a) subpart 2 of Part 2; and
 - (b) a building consent; and
 - (c) a code compliance certificate; and
 - (d) a compliance schedule.
- (4) This section is subject to section 9.”

Section 9 states:

“9 Building: what it does not include

In this Act, **building** does not include—

- (a) a NUO system, or part of a NUO system, that—
 - (i) is external to the building; and
 - (ii) is connected to, or is intended to be connected to, the building to provide for the successful functioning of the NUO system in accordance with the system’s intended design and purpose; and
 - (iii) is not a mast pole or a telecommunication aerial that is on, or forms part of, a building; or
- (b) cranes (including any cranes as defined in regulations made under the Health and Safety in Employment Act 1992); or
- (c) any of the following, whether or not incorporated within another structure:
 - (i) ski tows;
 - (ii) other similar stand-alone machinery systems; or

Definition

Source

- (d) any description of vessel, boat, ferry, or craft used in navigation—
 - (i) whether or not it has a means of propulsion; and
 - (ii) regardless of what that means of propulsion is; or
- (e) aircraft (including any machine that can derive support in the atmosphere from the reactions of the air otherwise than by the reactions of the air against the surface of the earth); or
- (f) any offshore installation (as defined in section 222 of the Maritime Transport Act 1994) to be used for petroleum mining; or
- (g) containers as defined in section 2(1) of the Hazardous Substances and New Organisms Act 1996; or
- (h) magazines as defined in section 222 of the Hazardous Substances and New Organisms Act 1996; or
- (i) scaffolding used in the course of the construction process; or
- (j) falsework."

Building Act 2004 (the Building Act) means the principal legislation dealing with building controls in New Zealand.

HB

COMMENT:

The *Building Act* applies to the construction, alteration, and demolition of new and existing buildings throughout New Zealand.

Building certifier means a *person* approved as a *building certifier* by the *Authority* under the *former Act*.

HB

COMMENT:

Building certifiers are not provided for under the *Building Act 2004*. There are no longer any *building certifiers*.

Building Code means the regulations made under section 400 of the *Building Act 2004*.

BA04

COMMENT:

No regulations have yet been made under section 400 of the *Building Act 2004*. However, the *Building Code* is currently the First Schedule of the Building Regulations 1992, which continue in force under regulation 8(2) of the Building Forms (Regulations) 2004.

Building consent means a consent to carry out *building work* granted by a *building consent authority* under section 49 of the *Building Act 2004*.

BA04

Building consent A consent issued by a building consent authority for building work to begin in accordance with the approved plans and specifications.

Simple House

Building consent accreditation body means the person referred to in section 248(2) of the *Building Act 2004*.

BA04

Building consent authority (BCA) means a *person* whose name is entered in the register referred to in section 273(1)(a) of the *Building Act 2004*.

BA04

Building element Any structural and non-structural component and assembly incorporated into or associated with a *building*. Included are *fixtures*, services, *drains*, permanent mechanical installations for access, glazing, partitions, ceilings and temporary supports.

Code

Amend 11
Sep 2010

Definition	Source
<p>Building height The vertical distance between the floor level of the lowest <i>final exit</i> from the <i>building</i>; and the highest occupied floor level containing or supporting any <i>purpose group</i> other than IE, IA or ID, or penthouses used to enclose <i>stairways</i>, liftshafts or machinery rooms located on or within the roof.</p> <p>Building levy means a levy payable under section 53 of the <i>Building Act 2004</i>.</p> <p>Building method or product has the meaning given to it by section 20 of the <i>Building Act 2004</i>. Section 20(2)(c) states:</p> <p>“(c) building methods, methods of construction, building design, or building materials (building methods or products) that have a current product certificate issued under section 269.”</p> <p>Building performance index (BPI) in relation to a <i>building</i>, means the <i>heating energy</i> of the <i>building</i> divided by the product of the <i>heating degrees total</i> and the sum of the <i>floor area</i> and the <i>total wall area</i>, and so is calculated in accordance with the following formula:</p> $\text{BPI} = \frac{\text{heating energy}}{\text{heating degrees total} \times (\text{floor area} + \text{total wall area})}$	<p>Code</p> <p>BA04</p> <p>BA04</p> <p>Code</p>
<p>Building work—</p> <p>(a) means work—</p> <p>(i) for, or in connection with, the <i>construction</i>, <i>alteration</i>, demolition, or removal of a <i>building</i>; and</p> <p>(ii) on an <i>allotment</i> that is likely to affect the extent to which an existing <i>building</i> on that <i>allotment</i> complies with the <i>Building Code</i>; and</p> <p>(b) includes <i>sitework</i>; and</p> <p>(c) includes design work (relating to <i>building work</i>) that is design work of a kind declared by the Governor-General by Order in Council to be restricted <i>building work</i> for the purposes of this Act; and</p> <p>(d) in Part 4, and the definition in this section of “supervise”, also includes design work (relating to building work) of a kind declared by the Governor-General by Order in Council to be <i>building work</i> for the purposes of Part 4]</p> <p>Building warrant of fitness (BWof) means the warrant of fitness an <i>owner</i> of a <i>building</i> must supply to a <i>territorial authority</i> under section 108 of the <i>Building Act 2004</i>.</p>	<p>BA04</p> <p>HB</p>
<p>Building wrap or building underlay See wall underlay.</p>	<p>Simple House</p>

Amend 11
Sep 2010

Amend 12
Oct 2011

Amend 11
Sep 2010

Definition**Source**

Butt flashing A preformed wall *flashing*, used to flash windows and corners on horizontal profiled metal wall *cladding*. A *butt flashing* is shaped to underflash the *cladding*, with the *cladding* butting against the exposed box portion of the *flashing*.

CD-E2

Butyl rubber and EPDM flashings *Butyl rubber* and *EPDM flashings* shall be a minimum thickness of 1.0 mm, and shall comply with the following parts of Table 1 in ASTM D6134:

Simple House

- (b) tensile strength
- (c) elongation
- (d) water absorption
- (e) water vapour transmission
- (f) heat aging followed by:
 - i) tensile strength
 - ii) elongation.

Amend 11
Sep 2010

C**Cable car—****BA04**

(a) means a vehicle—

- (i) that carries people or goods on or along an inclined plane or a suspended cable; and
- (ii) that operates wholly or partly outside of a *building*;

And

- (iii) the traction for which is supplied by a cable or any other means; but
- (b) does not include a lift that carries people or goods between the floors of a *building*.

Cantilevered deck A *deck* where no support is provided at the outer extremities of the *deck*.

CD-E2**COMMENT:**

Cantilevered decks are often constructed by extending *framing* members through the *cladding* beyond the *building* face. *Cantilevered decks* are sometimes known as balconies.

Canterbury earthquake region is the area contained within the boundaries of the Christchurch City Council, the Selwyn District Council and the Waimakariri District Council.

CD-B1

Amend 12
Oct 2011

Amend 11
Sep 2010

Capacity The load resistance of a connector or fixing.

Simple House

Capping A *flashing* formed to cover the top of an *enclosed balustrade* or *parapet*. Also known as a coping.

CD-E2

Cavity barrier A *construction* provided to close openings within a *concealed space* against the passage of *fire*, or to restrict the spread of *fire* within such spaces.

CD-C

Cavity batten A vertical packing member used to create a *drained cavity* as part of a *cladding system*.

CD-E2

Definitions

NEW ZEALAND BUILDING CODE HANDBOOK

Definition	Source
Cavity spacer A short block used to provide intermittent support for fixings or pipe penetrations through a <i>drained cavity</i> , while not interrupting drainage within the cavity.	CD-E2
A <i>cavity spacer</i> is required to be set to a slight fall (5° minimum from horizontal) to allow drainage of any moisture from the top.	
Cavity wall A term used to describe a wall that incorporates a <i>drained cavity</i> .	CD-E2
Ceiling batten A horizontal member fixed below <i>rafters</i> , or truss bottom chords to which the ceiling <i>lining</i> is attached.	Simple House
Certificate of acceptance means a certificate issued under section 96 of the <i>Building Act 2004</i> .	BA04
Certificate for public use means a certificate issued under section 363A of the <i>Building Act 2004</i> .	HB
Change the use for the purposes of sections 114 and 115 of the <i>Building Act 2004</i> , change the use, in relation to a <i>building</i> , means to change the use (determined in accordance with regulation 6) of all or a part of the <i>building</i> from one use (the old use) to another (the new use) and with the result that the requirements for compliance with the <i>Building Code</i> in relation to the new use are additional to, or more onerous than, the requirements for compliance with the <i>Building Code</i> in relation to the old use.	BR2
Check valve (or non-return valve) A valve that permits flow in one direction but prevents a return flow and is part of a <i>backflow prevention device</i> .	CD-G12
Chimney A <i>non-combustible</i> structure which encloses one or more <i>flues</i> , <i>fireplaces</i> or other heating appliances.	CD-B1, CD-C, CD-G4
Chimney back The <i>non-combustible</i> wall forming the back of a <i>fireplace</i> .	CD-B1, CD-C
Chimney base That part of a <i>chimney</i> which houses the <i>fireplace</i> .	CD-B1
Chimney breast The front <i>fireplace</i> wall construction above the <i>fireplace</i> opening.	CD-C
Chimney jambs The side walls of a <i>fireplace</i> .	CD-B1, CD-C
Cladding The exterior weather-resistant surface of a <i>building</i> .	CD-E2
COMMENT: Includes any supporting substrate and, if applicable, surface treatment.	
Cladding system The outside or exterior weather-resistant surface of a <i>building</i> , including <i>roof cladding</i> and <i>roof underlays</i> , wall <i>cladding</i> and wall <i>underlays</i> , and cavity components, rooflights, windows, doors and all penetrations, <i>flashings</i> , seals, joints and junctions.	CD-E2
Where required by this Acceptable Solution, the <i>cladding system</i> shall include a <i>drained cavity</i> .	
Cladding system The weatherproof wall or <i>roof</i> enclosure of a <i>building</i> , including underlays, <i>claddings</i> and their fixings, windows, doors and all penetrations, <i>flashings</i> , seals, joints and junctions.	Simple House
Classified use means a <i>classified use</i> listed in clause A1 of the <i>Building Code</i> .	BR1
Cleaning eye A small <i>diameter access point</i> usually formed as part of a fitting or trap.	CD-G13

Amend 11
Sep 2010Amend 12
Oct 2011Amend 11
Sep 2010

Definition

Source

Cleared ground level (CGL) The *ground level* after completion of site excavation and removal of all harmful material, but before excavation for *foundations*.

Simple House

Amend 11
Sep 2010

Code compliance certificate means a certificate issued by a *building consent authority* under section 95 of the *Building Act 2004*.

BA04

Combined waste pipe A *discharge pipe* which serves two or more *waste pipes*.

CD-G13

Combustible See *non-combustible*.

CD-B1, CD-C

Combustion appliance A slow combustion stove, a free standing metal cone fireplace, a cast iron pot belly stove, an oil burning space heater, or a vented gas burning heater.

Code

Amend 11
Sep 2010

Common extract duct A mechanical ventilation duct that extracts from different household units, and may contain air, moisture and contaminant.

CD-G4

Common ramp A ramp which is used, or intended to be used by the public whether as of right or not, and is not a *service ramp* or *accessible ramp*.

CD-D1

Common stairway A *stairway* which is used, or intended to be used, by the public whether as of right or not, and is not a *private stairway*, *service stairway* or *accessible stairway*.

CD-D1

Compliance document has the meaning given to it by section 22 of the *Building Act 2004*.

BA04

Section 22 states:

"22. Compliance document for use in establishing compliance with Building Code —

- (1) The chief executive may, by notice in the Gazette, issue a document for use in establishing compliance with the Building Code (a Compliance Document).
- (2) A person who complies with a Compliance Document must, for the purposes of this Act, be treated as having complied with the provisions of the Building Code to which the document relates.
- (3) Subsection (2) is subject to any regulations referred to in section 20".

Compliance schedule means a *compliance schedule* required under section 100 of the *Building Act 2004*.

BA04

Compliance schedule statement means a statement issued by a *territorial* or *regional authority* referred to in section 105(e) of the *Building Act 2004*.

HB

Concealed space Any part of the space within a *building* that cannot be seen from an *occupied space*.

Code

COMMENT:

This term includes any ceiling space, roof space, space under a raised floor (such as computer rooms, floors, or stages), plenums, spaces under a tiered floor, "left-over spaces" created when some structural element or the like has been covered in; small service or duct spaces within the volume of a *firecell* and the like, but not a *protected shaft*.

Concrete slab shrinkage control joint A line along which the horizontal strength of the slab is deliberately reduced so that any shrinkage in the slab will result in a crack forming along that line.

Simple House

Amend 11
Sep 2010

Definition	Source
Constant pressure means subjected to the sustained force of fluid forming the reservoir. When there is no water in a reservoir, there is no pressure. When a reservoir is partially filled, there is a constant pressure – in terms of it being a pressure sustained in time.	DG
Construct in relation to a <i>building</i> , includes to design, build, erect, prefabricate, and relocate the <i>building</i> .	BA04
Contaminant includes any substance (including gases, odorous compounds, liquids, solids, and microorganisms) or energy (excluding noise) or heat, that either by itself or in combination with the same, similar, or other substances, energy, or heat.	RMA
(a) When discharged into water, changes or is likely to change the physical, chemical, or biological condition of water, or	
(b) When discharged onto or into land or into air, changes or is likely to change the physical, chemical, or biological condition of the land or air onto or into which it is discharged.	
Controlled area That area where the use of radioactive material or an irradiating apparatus may, in the opinion of the <i>licensee</i> , present a hazard to <i>persons</i> within that area.	CD-F8
Control joint A joint designed to prevent damage by accommodating movement. See also <i>Expansion joint</i> .	CD-E2
Cross connection Any actual or potential connection between a <i>potable water</i> supply and a source of contamination.	CD-G12
D	
D A deformed reinforcing bar of the stated <i>diameter</i> in millimetres.	Simple House
Dam	BA04
(a) means an artificial barrier, and its appurtenant structures, that—	
(i) is constructed to hold back water or other fluid under constant pressure so as to form a reservoir; and	
(ii) is used for the storage, control, or diversion of water or other fluid; and	
(iii) retains 3 or more metres depth, and holds 20,000 or more cubic metres volume, of water or other fluid; and	
(b) includes—	
(i) a flood control <i>dam</i> ; and	
(ii) a natural feature that has been significantly modified to function as a <i>dam</i> ; and	
(iii) a canal; but	
(c) does not include a stopbank designed to control floodwaters.	
COMMENT:	
20,000 cubic metres is equivalent to six Olympic size swimming pools.	
Note: An Olympic swimming pool size is 50 m long x 25 m wide x 2 m deep.	

Amend 11
Sep 2010Amend 11
Sep 2010

Definition	Source
Dam safety assurance programme means a <i>dam safety assurance programme</i> prepared by an owner of a <i>dam</i> under section 140 of the <i>Building Act 2004</i> .	BA04
COMMENT: In order for <i>dams</i> to maintain their integrity ongoing monitoring, maintenance and repair is essential. For those <i>dams</i> classified as medium or high potential impact, <i>dam</i> owners have to prepare and submit a safety assurance programme to the <i>regional authority</i> on an annual basis.	
Dam compliance certificate A certificate issued by the owner of a <i>dam</i> annually stating that all procedures in the <i>dam safety assurance programme</i> have been fully complied with during the previous 12 months.	DG
Damp-proof course (DPC) A narrow strip (generally up to 300 mm wide) of <i>durable vapour barrier</i> placed between <i>building elements</i> to prevent the passage of moisture from one element to another.	CD-E2
Damp-proof course (DPC) A narrow strip (generally up to 300 mm wide) of <i>durable vapour barrier</i> greater than 90MN s/g to ASTM E96 and placed between <i>building elements</i> to prevent the passage of moisture from one element to another.	Simple House
Damp-proof membrane (DPM) A sheet material, coating or <i>vapour barrier</i> , having a low water vapour transmission, and used to prevent water and water vapour movement through concrete in contact with the ground. (Also known as a concrete underlay.)	CD-B2, CD-E2
Dangerous goods Any materials included in the UN classification, classes 2-5.	CD-F8
COMMENT: See <i>Hazardous substance</i> .	
Dangerous goods workroom A room reserved primarily for the use of <i>dangerous goods</i> of Class 3(a) or Class 3(b) (i.e. flammable liquids).	CD-F8
Dead end That part of an <i>open path</i> where escape is possible in only one direction.	CD-C
COMMENT: A <i>dead end</i> ceases to exist where the <i>escape route</i> reaches a point in the <i>open path</i> which offers alternative directions of travel, or at a <i>final exit</i> or an <i>exitway</i> .	
Deck An open platform projecting from an exterior wall of a <i>building</i> and supported by <i>framing</i> . A <i>deck</i> may be over enclosed internal spaces, or may be open underneath. Refer also <i>Enclosed deck</i> . Also known as a balcony.	CD-E2

Amend 11
Sep 2010Amend 11
Sep 2010

Definitions

NEW ZEALAND BUILDING CODE HANDBOOK

	Definition	Source
	Department means the Department of Building and Housing.	HB
Amend 11 Sep 2010	Department of Conservation means the department of State established by section 5 of the Conservation Act 1987.	Code
	Determination means a determination made by the Chief Executive under subpart 1 of Part 3 of the <i>Building Act 2004</i> .	BA04
	Developed length The total length along the centre line of a pipe including fittings and bends.	CD-G13
Amend 11 Sep 2010	Diagonal brace A member of a framed <i>building</i> fixed diagonally and used to resist tension or compression or both.	Simple House
	Diameter (or bore) The nominal internal <i>diameter</i> .	CD-G12, CD-G13
	Direct fixed A term used to describe a wall <i>cladding</i> attached directly to the wall <i>framing</i> , without the use of a <i>drained cavity</i> .	CD-E2
Amend 11 Sep 2010	Director-General has the same meaning as in section 2(1) of the Conservation Act 1987.	Code
	Discharge pipe Any pipe that is intended to convey discharge from <i>sanitary fixtures</i> or <i>sanitary appliances</i> .	CD-G13
	Discharge stack A <i>discharge pipe</i> that has one or more <i>discharge pipe</i> connections, and which is vented at one end via a <i>discharge stack vent</i> .	CD-G13
	Discharge stack vent A <i>vent pipe</i> connected to the top of the <i>discharge stack</i> .	CD-G13
	Discharge unit The unit of measure for the discharge (hydraulic load) in the <i>plumbing system</i> , and is based on the rate, duration and frequency of discharge from a <i>sanitary fixture</i> or <i>sanitary appliance</i> .	CD-G13
	Doorset A complete assembly comprising a door leaf or leaves including any glazed or solid panels adjacent to or over the leaves within the door frame including hardware or other inbuilt features; and a door frame, if any, with its fixings to the wall and, for a sliding or tilting door, all guides and their respective fixings to the lintel, wall or sill.	CD-C, CD-F8
	Dormer or dormer window A framed structure that projects from a sloping roof, and has a window at its outer end.	CD-E2
	Drain A pipe normally laid below ground level including fittings and equipment and intended to convey <i>foul water</i> or <i>surface water</i> to an <i>outfall</i> .	Code
Amend 12 Oct 2011	Drained cavity A cavity space, immediately behind a wall <i>cladding</i> , that has vents at the base of the wall. Also known as a drained and vented cavity and referred to in E2/AS1 as a cavity or <i>drained cavity</i> . A <i>drained cavity</i> assists drying by allowing water which occasionally penetrates the wall <i>cladding system</i> to drain to the exterior of the <i>building</i> , and any remaining moisture to dry by evaporation. Where E2/AS1 requires a nominal 20 mm <i>drained cavity</i> , the depth shall be between limits of 18 mm and 25 mm. For definition of masonry veneer cavity refer to SNZ HB 4236.	CD-E2
	Drain vent pipe Any pipe which is intended to permit the movement of air into and out of the <i>drain</i> and <i>sewer</i> .	CD-G13

Definition

Source

Draught diverter A device, without moving parts, fitted in the *flue* of an appliance for isolating the combustion system from the effects of pressure changes in the secondary *flue*.

CD-G4, CD-C

Drip edge Fold(s) applied to the edge of a horizontal metal *flashing* to deflect moisture away from the *cladding system* below. Refer also *Bird's beak* and *Kick-out*.

CD-E2

Durable Resistant to wear and decay.

CD-B2

Amend 12
Oct 2011

Dwang A short (usually horizontal) member fixed between vertical *framing* timbers. Also known as nogging.

CD-E2

E

Early childhood centre A facility used for the education or care of children under the age of six, and required to be licensed under the Education (Early Childhood Centres) Regulations 1998.

CD-C

Amend 12
Oct 2011

Eaves That part of the roof *construction*, including *cladding*, fascia and eaves gutter (spouting), that extends beyond the exterior face of the wall.

CD-E2

Eaves bearer or **soffit bearer** or **sprocket** A horizontal member attached to the end of a truss or a *rafter* and to a *stud*, or a ribbon board, or a soffit plate, and to which the *eaves lining* is attached.

Simple House

Amend 11
Sep 2010

EPDM Ethylene Propylene Diene Monomer – a thermosetting synthetic rubber. See **butyl rubber**.

Simple House

EIFS (Exterior Insulation and Finish System) A polystyrene sheet-based *cladding system* that uses mesh reinforced polymer-modified cement-based or polymer-based plaster base coats and a protective top coating.

CD-E2

Electrical fixed appliance An electrical appliance which is fixed-wired to the *electrical installation*, or intended to remain permanently attached and form part of the *building*.

Code

Electrical installation Any *electrical fixed appliances* and components used in the reticulation of electricity, which are intended to remain permanently attached to and form part of the *building*.

Code

Electrical supply system The source of electricity external to the *electrical installation*.

Code

Electrolytic corrosion Galvanic corrosion commonly resulting from the contact of two dissimilar metals when an electrolyte such as water is present.

CD-E2

Amend 12
Oct 2011

Enclosed balustrade A timber-framed barrier with *cladding* across all exposed faces. Refer also Parapet.

CD-E2

Enclosed deck A *deck*, whether over an interior or exterior space, that has an impermeable upper surface and is closed on the underside. May also be known as a balcony.

CD-E2

Energy work means—

BA04

(a) gasfitting; or

(b) prescribed electrical work

Definition	Source
Energy work certificate means a certificate of the kind referred to in section 19(1)(e) of the <i>Building Act 2004</i> .	BA04
Envelope complexity The categorisation of the complexity of the total <i>building</i> envelope into one of four classes, depending on the particular features of the <i>building</i> as specified in E2/AS1.	CD-E2
EPDM (Ethylene Propylene Diene Monomer) A thermosetting synthetic rubber used as a resilient part of a sealing washer, or as a roof <i>membrane</i> .	CD-E2
Equivalent aerodynamic area The area of an equivalent aerodynamically perfect orifice, and equals the penetration area required by the natural ventilation device multiplied by the discharge coefficient determined under test.	CD-G4
Escape height The height between the floor level in the <i>firecell</i> being considered and the floor level of the required <i>final exit</i> which is the greatest vertical distance above or below that <i>firecell</i> .	CD-C, CD-F3 CD-F6
COMMENT: <ol style="list-style-type: none"> 1. It is necessary only to use the greatest height to the exits required for the <i>firecell</i> being considered, even though the <i>building</i> may have other <i>final exits</i> at lower or higher levels. 2. Where the <i>firecell</i> contains <i>intermediate floors</i>, or upper floors within <i>household units</i> the <i>escape height</i> shall be measured from the floor having the greatest vertical separation from the <i>final exit</i>. 	
Escape route A continuous unobstructed route from any <i>occupied space</i> in a <i>building</i> to a <i>final exit</i> to enable occupants to reach a <i>safe place</i> , and shall comprise one or more of the following: <i>open paths</i> , <i>protected paths</i> and <i>safe paths</i> .	Code
COMMENT: <p>Doors are not obstructions in an <i>escape route</i> provided they comply with C/AS1 Part 3 and D1/AS1.</p>	
Essential service In the context of an <i>electrical installation</i> means emergency lighting, firemen's lifts, alarms, water pumps, sprinklers, detectors, ventilation systems and public address systems necessary for the safety of people in <i>buildings</i> .	Code
Estimated value in relation to <i>building work</i> , means the estimated aggregate of the values, determined in accordance with section 10 of the Goods and Services Tax Act 1985, of all goods and services to be supplied for the <i>building work</i> .	BA04
Evacuation time The time taken by the occupants of the <i>building</i> to evacuate the <i>building</i> to a <i>final exit</i> .	Code
Exitway All parts of an <i>escape route</i> protected by <i>fire</i> or <i>smoke separations</i> , or by distance when exposed to open air, and terminating at a <i>final exit</i> .	Code
Expansion joint A joint designed to prevent damage by accommodating movement. See also <i>Control joint</i> .	CD-E2

Amend 11
Sep 2010

Definition**Source**

External wall Any exterior face of a *building* within 30° of vertical, consisting of *primary* and/or *secondary elements* intended to provide protection against the outdoor environment, but which may also contain *unprotected areas*.

Code**COMMENT:**

A roof is an *external wall* if within 30° of the vertical.

Amend 11
Sep 2010

External wall An outer wall of a *building*.

Simple House

Amend 12
Oct 2011

External wall Any vertical exterior face of a *building* consisting of *primary* and/or *secondary elements* intended to provide protection against the outdoor environment.

CD-E2**F**

Factor of safety in relation to any *building* means the ratio of resisting forces to applied forces for a given loading condition. It is generally expressed to two significant figures.

CD-B1

Falsework, in relation to *building work* or the maintenance of a *building*,—

BA04

(a) means any temporary structure or framework used to support materials, equipment, or an assembly; and

(b) includes steel tubes, adjustable steel props, proprietary frames, or other means used to support a permanent structure until it becomes self-supporting; but

(c) does not include scaffolding or cranes used for support.

Final exit The point at which an *escape route* terminates by giving direct access to a *safe place*.

Code**COMMENT:**

Final exits are commonly the external doors from a ground floor, but this applies only if such doors open directly onto a *safe place*. If a *safe place* can be reached only by passing down an alley, or across a bridge, then the *final exit* is not reached until the end of such an alley or bridge. *Final exits*, therefore, should be seen strictly as a point of arrival, rather than as any particular element of a *building*. They are determined entirely by the definition of *safe place*.

Amend 12
Oct 2011

Finished ground level (FGL) The level of the ground against any part of a *building* after all backfilling and/or landscaping and/or surface paving has been completed.

CD-E2

Fire The state of combustion during which flammable materials burn producing heat, toxic gases, or smoke or flame or any combination of these.

Code

Firecell Any space including a group of contiguous spaces on the same or different levels within a *building*, which is enclosed by any combination of *fire separations*, *external walls*, roofs, and floors.

Code**COMMENT:**

Floors, in this context, includes ground floors and those in which the underside is exposed to the external environment (eg, when cantilevered). Note also that internal floors between *firecells* are *fire separations*.

Firecell rating (F) The *fire resistance rating (FRR)* intended to prevent *fire* spread to another *firecell*, for sufficient time to provide for safe evacuation of occupants and protection of adjacent *housing units* and sleeping areas in the *building* of *fire* origin and fire fighters engaged in fire fighting and rescue operations.

CD-C

Definition

Source

COMMENT:

1. The purpose of the *firecell rating* is to prevent premature collapse of elements of structure in order to protect:

(a) The occupants, some of whom may have to remain in the *building* for some time while evacuation proceeds, particularly if the *building* is a large one.

(b) Adjacent *household units* and sleeping areas in the *building* of *fire* origin.

(c) Fire fighters engaged on rescue and fire fighting operations (although this is limited because property protection in the *building* of origin is not a matter covered by the New Zealand Building Code except as required by b) above).

2. The use of the *F rating* to determine the *FRR* of a *primary* or *secondary element* is discussed in C/AS1 Part 5.

Fire damper A device with a specified *FRR* complete with fixings and operating mechanism for automatically closing off an airway where it passes through a *fire separation*.

CD-C

COMMENT:

An airway may be a duct, plenum, ceiling space, roof space or similar *construction* used for the passage of ventilating air.

Fire door A *doorset*, single or multi-leaf, having a specific *fire resistance rating*, and in certain situations a smoke control capability, and forming part of a *fire separation*. The door, in the event of *fire*, if not already closed, will close automatically and be self latching.

CD-C

COMMENT:

Requirements for fire doors are given in C/AS1 Paragraphs 6.19.1 and 6.19.8 and Appendix C, Paragraph C 8.1.

Fire hazard means the danger of potential harm and degree of exposure arising from—

BA04

(a) the start and spread of *fire*; and

(b) the smoke and gases that are generated by the start and spread of *fire*.

Fire hazard category (FHC) The number (graded 1 to 4 in order of increasing severity), used to classify *purpose groups* or activities having a similar *fire hazard*, and where fully developed *fires* are likely to have similar impact on the structural stability of the *building*.

CD-C

COMMENT:

Fire hazard categories are identified in C/AS1 Table 2.1.

Fire intensity The rate release of calorific energy in watts, determined either theoretically or empirically, as applicable.

Code

Fire load The sum of the net calorific values of the *combustible* contents which can reasonably be expected to burn within a *firecell*, including furnishings, built-in and removable materials, and *building elements*. The calorific values shall be determined at the ambient moisture content or humidity. (The unit of measurement is MJ.)

Code

Fire load energy density (FLED) The total *fire load* divided by the *firecell* floor area. In this calculation the floor area shall include circulation and service spaces, but exclude *exitways* and *protected shafts*.

CD-C

Definition**Source****COMMENT:**

The total *fire load* is converted to *fire load energy* terms in megajoules (MJ) for calculation of the *FLED* (MJ/m²).

Fireplace A space formed by the *chimney back*, the *chimney jambs*, and the *chimney breast* in which fuel is burned for the purpose of heating the room into which it opens.

CD-C, CD-B1

Fire resistance rating (FRR) The term used to describe the minimum *fire resistance* required of *primary* and *secondary elements* as determined in the *standard test* for *fire resistance*, or in accordance with a specific calculation method verified by experimental data from standard *fire resistance* tests. It comprises three numbers giving the time in minutes for which each of the criteria *stability*, *integrity* and *insulation* are satisfied, and is presented always in that order.

CD-C**COMMENT:**

1. Examples of *FRRs* are:

- (a) 30/30/15 indicating *stability* 30 minutes, *integrity* 30 minutes, *insulation* 15 minutes.
- (b) 30/-/- indicating *stability* 30 minutes, but no time requirement for *integrity* or *insulation*.
- (c) -/15/15 indicating no time requirement for *stability*, but 15 minutes for *integrity* and *insulation*.
- (d) 60/30/x indicating *stability* of 60 minutes, *integrity* of 30 minutes, and a requirement for *insulation* from C/AS1 Paragraph 5.6.4.

2. C/AS1 Part 5 gives more information on *FRRs*.

Fire resisting closure A *fire rated* device or assembly for closing an opening through a *fire separation*. It shall have a *FRR* of no less than that required for the *fire separation*.

Code**COMMENT:**

A *fire resisting closure* is intended to include *fire doors*, *fire windows* or access panels. In this context the opening may be used to permit passage of people or goods, or to transmit light, but does not include an opening to permit the passage of *building services*.

Fire resisting glazing Fixed or openable glazing, complete with frame and fixings, mullions, transoms and glazing beads, with a specified *FRR* and complying with NZS 4232: Part 2.

CD-C**COMMENT:**

- 1. The requirement for *fire resisting glazing* will not be met by ordinary window glass, or safety glasses, but rather by wired glass, or by special *fire resisting glass* shown by test to perform adequately. The nature and design of the frames also have an effect on the performance of *fire resisting glazing*.
- 2. Openable glazing is required by NZS 4232 Part 2 to be fitted with an automatic device which, in the event of *fire*, will close and latch the window sash.

Fire safety precautions (FSPs) The combination of all methods used in a *building* to warn people of an emergency, provide for safe evacuation, and restrict the spread of *fire*, and includes both active and passive protection.

CD-C, CD-F7**COMMENT:**

This definition has the same meaning and wording as the definition of "fire safety systems" in the Building Regulations.

Definition	Source
Fire safety systems The combination of all methods used in a <i>building</i> to warn people of an emergency, provide for safe evacuation, and restrict the spread of <i>fire</i> , and includes both active and passive protection.	Code
Fire separation Any <i>building element</i> which separates <i>firecells</i> or <i>firecells</i> and <i>safe paths</i> , and provides a specific <i>fire resistance rating</i> .	Code
Fire shutter A <i>fire</i> rated device, complete with fixings and operating mechanism, for automatically closing off an opening in a <i>fire separation</i> or <i>protected shaft</i> .	CD-C
Fire stop A material or method of <i>construction</i> used to restrict the spread of <i>fire</i> within or through <i>fire separations</i> , and having a <i>FRR</i> no less than that of the <i>fire separation</i> .	CD-C
COMMENT: <i>Fire stops</i> are mainly used to seal around <i>penetrations</i> , but can also be used to seal narrow gaps between <i>building elements</i> .	
Fixture An article intended to remain permanently attached to and form part of a <i>building</i> .	Code
Fixture discharge pipe A <i>discharge pipe</i> that is used to convey waste from a single <i>sanitary fixture</i> or <i>sanitary appliance</i> to a <i>branch discharge pipe</i> , a <i>discharge stack</i> , or directly to a <i>drain</i> . It does not include any pipes forming part of a <i>sanitary appliance</i> .	CD-G13
Fixture vent pipe (trap vent) A <i>vent pipe</i> that is connected to a <i>fixture discharge pipe</i> or the <i>sanitary fixture</i> itself.	CD-G13
Flame barrier A material or system applied or installed to protect another <i>building element</i> from flame contact. The protection shall be effective for no less than 10 minutes exposure in the <i>standard test</i> for <i>fire resistance</i> .	CD-C
COMMENT: 1. The principal use of <i>flame barriers</i> is to delay ignition of <i>foamed plastics</i> materials. 2. Refer to Appendix C Paragraph C10.1 of C/AS1 for details of the test requirements for <i>flame barriers</i> .	
Flame safeguard system A system consisting of a flame detector(s) plus associated circuitry, integral components, valves and interlocks the function of which is to shut off the fuel supply to the burner(s) in the event of ignition failure or flame failure.	CD-G11
Flammability index (FI) That index number for flammability, which is determined according to the <i>standard test</i> method for flammability of thin flexible materials.	CD-C
Flashing A component, formed from a rigid or flexible <i>waterproof</i> material, that drains or deflects water back outside the <i>cladding system</i> .	CD-E2
Flexible flashing tape A flexible self-adhesive <i>waterproof</i> tape. Usually used as an accessory for <i>wall underlays</i> , to seal corners and intersections.	CD-E2

Amends
11 and 12

Definition

Source

Flexible flashing tape A flexible self-adhesive *waterproof* tape. Usually used as an accessory for *wall underlays* to seal corners and intersections

Simple House

Flood level rim The top edge at which water can overflow from equipment or a *fixture*.

CD-G12

Floor area, in relation to a *building*, means the *floor area* (expressed in square metres) of all interior spaces used for activities normally associated with domestic living.

Code

Floor waste An outlet located at the low point of a graded floor or in a level floor designed to receive accidental or intentional discharges.

CD-E3, CD-G13

Floor waste gully A disconnector gully for installation inside a *building*, for use with a floor grating or waste outlet fitting on a riser pipe and with provision, where required, for connection of waste pipes for *sanitary fixtures*.

Simple House

Floor waste pipe A pipe that receives the discharge from a *floor waste* and that discharges outside the *building* or to the *foul water drainage* or sanitary *plumbing system*.

CD-G13

Flue The passage through which the products of combustion are conveyed to the outside.

CD-B1, CD-B2,
CD-C, CD-G4,
CD-G11

Flue liner Pipes or linings of *fire clay*, metal or *fire brick*, surrounding *flues*.

CD-C

Flue system A series of interconnecting *flue* pipe casings which form a safe passage (*flue*) for conveying products of combustion from within an appliance to the outside of a *building* or structure.

CD-C

Flush-finished The description of a *cladding* and joints system which relies on a protective coating applied to the face of the *cladding* to prevent the penetration of water.

CD-E2

Foamed plastics *Combustible* foamed plastic polymeric materials of low density (typically less than 100 kg/m³) and are classified as cellular polymers which are manufactured by creating a multitude of fine voids (typically 90 to 98%) distributed more or less uniformly throughout the product. Examples of *foamed plastics* are latex foams, polyethylene foams, polyvinyl chloride foams, expanded or extruded polystyrene foams, phenolic foams, ureaformaldehyde foams, polyurethane foams and polychloroprene foams.

CD-C

COMMENT:

1. *Foamed plastics* may be rigid or flexible, but rigid foams are the most common in *building* products. When burnt they tend to generate high levels of heat energy (kJ/kg) and varying quantities of smoke and other toxic gases depending on the nature and volume of the particular product.
2. Where doubt exists as to whether a *building* material is *foamed plastics*, an opinion should be sought from a *person* or organisation with appropriate skill and experience in *fire* engineering. That opinion should be included with the *building consent* application to the *building consent authority*.

Footing That portion of a *foundation* bearing on the ground and any adjoining portion that is reinforced so as to resist the bearing forces.

Simple House

Amend 11
Sep 2010Amend 11
Sep 2010Amend 11
Sep 2010

Definition	Source
Forced or induced draught appliance An appliance where all or part of the air for combustion is provided by a fan or other mechanical device which is an integral part of the combustion system.	CD-G4
Former Act means the Building Act 1991.	BA04
Foul water The discharge from any <i>sanitary fixture</i> or <i>sanitary appliance</i> .	Code
Foul water drainage system <i>Drains</i> , joints and fittings normally laid underground and used specifically for the conveyance of water from the <i>plumbing system</i> to an <i>outfall</i> .	Code
Foundation Those parts of a <i>building</i> transmitting and distributing loads to the ground through a <i>footing</i> .	Simple House
Framing Timber members to which <i>lining</i> , <i>cladding</i> , flooring, or decking is attached; or which are depended upon for supporting the structure, or for resisting forces applied to it.	CD-E2
Free outlet (push through) In the context of <i>storage water heaters</i> means a <i>water heater</i> with a tap on the cold water inlet so designed that the hot water is discharged through an open outlet.	CD-G12
Functional requirements in relation to a <i>building</i> , means those functions which a <i>building</i> is to perform for the purposes of the <i>Building Act 2004</i> .	BA04

Amend 11
Sep 2010

G

Gable Triangular part of an <i>external wall</i> between the planes of the <i>roof</i> and the line of the <i>eaves</i> .	Simple House
Galvanised steel flashings Galvanised steel <i>flashings</i> shall be: <ul style="list-style-type: none"> (a) <i>BMT</i> of 0.55 mm minimum for <i>flashings</i> generally (b) <i>BMT</i> of 0.4 mm minimum for roll-formed roll-top ridge <i>flashings</i> (c) Hot-dipped zinc coated Z275 with a factory-applied finish that complies with AS/NZS 2728 Type 4, and in Sea Spray and corrosion Zone 1 the factory-applied finish shall be Type 5 minimum. 	Simple House
Gantry A structure covering a public way providing protection from both the side and overhead.	CD-F5
Gasfitting has the meaning given to it by section 2 of the Plumbers, Gasfitters, and Drainlayers Act 1976.	BA04/PGDA

Amend 11
Sep 2010

Section 2 states:

- “(a) The work of fixing or unfixing pipes (including flue and ventilation pipes) beyond the outlet of any gas measurement system supplying a consumer or gas refueller with gas (or, where there is no such gas measurement system, beyond the custody transfer point of the place at which gas is supplied to a consumer or gas refueller);
- (b) The work of fixing or unfixing pipes (including flue and ventilation pipes) that convey gas from any gas storage container in the possession or control of a consumer or gas refueller, and—

Definition

Source

- (i) In the case of liquefied petroleum gas, that are downstream of the first regulator beyond that container; or
- (ii) In the case of any other gas or where there is no such regulator (in the case of liquefied petroleum gas), that are downstream of the outlet valve of the container;
- (c) The work of fixing or unfixing the whole or part of the control system of any gas appliance—
but does not include—
- (d) Work on any gas storage container, including its fixing or unfixing; or
- (e) Work on any gas transmission system or distribution system; or
- (f) Work on any pipes or fittings supplied with liquefied petroleum gas from any gas storage container or containers that contains, or together contain, less than 15 kilograms net weight of liquefied petroleum gas; or
- (g) Work in any circumstances where the exclusions in section 3(2) of the Gas Act 1992 apply:]”

Gather That part of a *chimney* where the transition from *fireplace* to stack occurs.

CD-B1

Good ground means any soil or rock capable of permanently withstanding an ultimate bearing pressure of 300 kPa (i.e. an allowable bearing pressure of 100 kPa using a *factor of safety* of 3.0), but excludes:

CD-B1

- (a) Potentially compressible ground such as topsoil, soft soils such as clay which can be moulded easily in the fingers, and uncompacted loose gravel which contains obvious voids,
- (b) Expansive soils being those that have a liquid limit of more than 50% when tested in accordance with NZS 4402 Test 2.2, and a linear shrinkage of more than 15% when tested, from the liquid limit, in accordance with NZS 4402 Test 2.6, and
- (c) Any ground which could foreseeably experience movement of 25 mm or greater for any reason including one or a combination of: land instability, ground creep, subsidence, (liquefaction, lateral spread – for the *Canterbury earthquake region* only), seasonal swelling and shrinking, frost heave, changing ground water level, erosion, dissolution of soil in water, and effects of tree roots.

COMMENT:

Soils (excepting those described in (a), (b) and (c) above) tested with a dynamic cone penetrometer in accordance with NZS 4402 Test 6.5.2, shall be acceptable as *good ground* for *building* foundations if penetration resistance is no less than:

- (a) 3 blows per 75 mm at depths no greater than the footing width.
- (b) 2 blows per 75 mm at depths greater than the footing width.

Depths shall be measured from the underside of the proposed footing.

Amend 12
Oct 2011

Definition	Source
<p>Good ground Any soil or rock capable of permanently withstanding an ultimate bearing pressure of 300 kPa (ie, an allowable bearing pressure of 100 kPa using a <i>factor of safety</i> of 3.0) but excluding:</p> <p>(a) potentially compressible ground such as top soil, soft soils such as clay which can be moulded easily in the fingers, and uncompacted loose gravel which contains obvious voids;</p> <p>(b) expansive soils being those that have a liquid limit of more than 50% when tested in accordance with NZS 4402 Test 2.2, and a linear shrinkage of more than 15% when tested from the liquid limit in accordance with NZS 4402 Test 2.6, and</p> <p>(c) any ground which could foreseeably experience movement of 25 mm or greater for any reason including one or a combination of: land instability, ground creep, subsidence, seasonal swelling and shrinkage, frost heave, changing ground water level, erosion, dissolution of soil in water, and effects of tree roots.</p> <p>(Note that soils, excepting those described in (a), (b) and (c) above, tested with a dynamic cone penetrometer in accordance with NZS 4402 Test 6.5.2, shall be acceptable as <i>good ground</i> for <i>building foundations</i> if penetration resistance is no less than:</p> <p>(i) 3 blows per 75 mm at depths no greater than the footing width</p> <p>(ii) 2 blows per 75 mm at depths greater than the footing width.</p> <p>Depths shall be measured from the underside of the proposed <i>footing</i>.)</p>	Simple House
<p>Grease trap A device designed to intercept grease in a <i>foul water</i> discharge.</p>	CD-G13, CD-G14
<p>Gross floor area The area contained within the outside face of the exterior timber wall <i>framing</i> of a <i>simple house</i>.</p>	Simple House
<p>Ground level See cleared ground level, finished ground level.</p>	Simple House
<p>Group sleeping area A <i>firecell</i> containing communal sleeping accommodation for a specified number of people who may or may not be known to one another. Partial subdivision within the <i>firecell</i> is permitted with specific limitation including that no <i>occupied space</i> is fully enclosed and all <i>occupied spaces</i> are open and available to all occupants at any time. A <i>group sleeping area firecell</i> may include spaces for associated direct support functions, such as hygiene facilities and tea making (not cooking) activities, for use by the occupants. It does not include spaces, such as waiting rooms, lounges, dining rooms or kitchens, providing a communal service function for all occupants.</p> <p>COMMENT:</p> <ol style="list-style-type: none"> 1. Examples of <i>group sleeping area firecells</i> are dormitories, hospital wards, <i>wharehau</i>, backpacker hostels and ski lodges. 2. The maximum number of people permitted in a <i>group sleeping area firecell</i>, and the permitted form of subdivision, will depend on the ability of the occupants to react to the presence of <i>fire</i> and escape to a <i>safe place</i>. 	CD-C
<p>Gully trap A fitting designed to prevent foul air escaping from the drainage system and used to receive the discharge from <i>waste pipes</i>.</p>	CD-G13

Amend 11
Sep 2010

Amend 11
Sep 2010

Definition

Source

H

Habitable space A space used for activities normally associated with domestic living, but excludes any bathroom, laundry, water closet, pantry, walk-in wardrobe, corridor, hallway, lobby, clothes-drying room, or other space of a specialised nature occupied neither frequently nor for extended periods. **Code**

Handrail A rail to provide support to, or assist with the movement of a *person*. **Code**

Hazardous Creating an unreasonable risk to people of bodily injury or deterioration of health. **Code**

Hazardous substance Has the meaning given to it by section 2 of the Fire Service Act 1975 and section 2 of the Hazardous Substances and New Organisms Act 1996 **Code/FSA/HSNOA**

Section 2 of the Fire Service Act 1975 states:

“**Hazardous substance**” means

- (a) Any hazardous substance as defined in section 2 of the Hazardous Substances and New Organisms Act 1996; and
- (b) Any infectious or radioactive substance that may impair human, animal, or plant” health:

Section 2 of the Hazardous Substances and New Organisms Act 1996 states:

“**Hazardous substance**” means, unless expressly provided otherwise by regulations, any substance—

- (a) With one or more of the following intrinsic properties:
 - (i) Explosiveness;
 - (ii) Flammability;
 - (iii) A capacity to oxidise
 - (iv) Corrosiveness;
 - (v) Toxicity (including chronic toxicity
 - (vi) Ecotoxicity, with or without bioaccumulation; or
- (b) Which on contact with air or water (other than air or water where the temperature or pressure has been artificially increased or decreased) generates a substance with any one or more of the properties specified in paragraph (a) of this definition.”

Hearth The insulating floor under the *fire* and in front and at the sides of the *fireplace*. **CD-B1, CD-C**

Heating degrees, in relation to a location and a *heating month*, means the degrees obtained by subtracting from a base temperature of 14°C the mean (calculated using the *approved temperature data*) of the outdoor temperatures at that location during that month. **Code**

Heating degrees total, in relation to a location and a year, means whichever is the greater of the following: **Code**

- (a) the value of 12 and
- (b) the sum of all the *heating degrees* (calculated using the *approved temperature data*) for all of the *heating months* of the year.

Definition	Source
<p>Heating energy, in relation to a <i>building</i>, means the energy from a <i>network utility operator</i> or a depletable resource (expressed in kilowatt-hours, and calculated using the Building Research Association of New Zealand's <i>ALF 3, The 'Annual Loss Factor' Method, A design tool for energy efficient houses</i> (3rd edition, April 2000) or some other method that can be correlated with that manual) needed to maintain the <i>building</i> at all times within a year at a constant internal temperature under the following standard conditions:</p> <ul style="list-style-type: none"> (a) a continuous temperature of 20°C throughout the <i>building</i> (b) an air change rate of 1 change per hour or the actual air leakage rate, whichever is the greater (c) a heat emission contribution arising from internal heat sources for any period in the year of 1000 kilowatt-hours for the first 50 m² of <i>floor area</i>, and 10 kilowatt-hours for every additional square metre of <i>floor area</i> (d) no allowance for— <ul style="list-style-type: none"> (i) carpets or (ii) blinds, curtains, or drapes, on windows (e) windows to have a shading coefficient of 0.6 (made up of 0.8 for windows and recesses and 0.75 for site shading). <p>Heating month, in relation to a location, means a month in which a base temperature of 14°C is greater than the mean (calculated using the <i>approved temperature data</i>) of the outdoor temperatures at that location during that month.</p>	<p>Code</p>
<p>Hem A flat fold, not completely closed, applied to the edge of a metal <i>flashing</i>.</p>	CD-E2
<p>Hidden gutter A gutter located within the boundaries of the roof <i>framing</i>. <i>Hidden gutters</i> may also be known as secret gutters or internal gutters. See also <i>Valley gutters</i>.</p> <p>COMMENT: <i>Hidden gutters</i> are distinct from gutters or spouting that are externally located beyond the bounds of the roof and wall <i>framing</i>.</p>	CD-E2
<p>Hoarding A structure alongside a public way providing side protection but no overhead protection.</p>	CD-F5
<p>Hold-open device A device which holds a <i>smoke control door</i> or <i>fire door</i> open during normal use, but is released by deactivating the device by an automatic <i>fire</i> detection system, allowing the door to close automatically under the action of a self-closing device.</p>	CD-C, CD-F7, CD-F8
<p>Hook An open fold applied to the edge of a metal <i>flashing</i>.</p> <p>COMMENT: A <i>hook</i> is distinct from a <i>hem</i>, as it is open at an acute angle rather than flattened.</p>	CD-E2

Amend 11
Sep 2010

Definition

Source

Household unit

BA04

(a) means a *building* or group of *buildings*, or part of a *building* or group of *buildings*, that is—

- (i) used, or intended to be used, only or mainly for residential purposes; and
- (ii) occupied, or intended to be occupied, exclusively as the home or residence of not more than 1 household; but

(b) does not include a hostel, boarding house, or other specialised accommodation.

Household unit For a *simple house*, means a *building* or part of a *building* that is used or intended to be used for residential purposes.

Simple House

HVAC An abbreviation for heating, ventilating and airconditioning.

CD-C, CD-F7

HVAC system for the purposes of performance H1.3.6 and in relation to a building, means a mechanical, electrical, or other system for modifying air temperature, modifying air humidity, providing ventilation, or doing all or any of those things, in a space within the building.

Code

I

Illuminance The luminous flux falling onto a unit area of surface.

Code

Impact insulation class (IIC) A single number rating derived from measured values of normalized impact sound pressure levels in accordance with Method ASTM E 492, Annex A1, Laboratory Measurement of Impact Sound Transmission Through Floor-Ceiling Assemblies Using the Tapping Machine. It provides an estimate of the impact sound insulating performance of a floor-ceiling assembly.

Code

Impervious That which does not allow the passage of moisture.

Code

Independent qualified person (IQP) means a *person* accepted by a *territorial authority* in accordance with section 438 of the *Building Act 2004* as being qualified to carry out the inspection, maintenance, and reporting procedures required for a *specified system* stated in a *compliance schedule*.

HB

Inspection chamber A chamber with working space at ground level through which the *drain* passes either as an open channel or as a pipe incorporating an *inspection point*.

CD-E1, CD-G13

Inspection point A removable cap at *drain* level through which access may be made for cleaning and inspecting the drainage system.

CD-E1, CD-G13

Insulating material A material that has a thermal conductivity of less than 0.07 W/mK.

CD-C, CD-E3

Insulation In the context of *fire* protection, the time in minutes for which a prototype specimen of a *fire separation*, when subjected to the *standard test* for *fire* resistance, has limited the transmission of heat through the specimen.

Code

Definition

Source

Integrity In the context of *fire* protection, the time in minutes for which a prototype specimen of a *fire separation*, when subjected to the *standard test* for *fire resistance*, has prevented the passage of flame or hot gases.

Code

COMMENT:

The precise meaning of *integrity* depends on the type of *building elements* being treated and how it is defined in the *standard test* being used.

Intended use in relation to a *building*,—

BA04

(a) includes any or all of the following:

- (i) any reasonably foreseeable occasional use that is not incompatible with the *intended use*;
- (ii) normal maintenance;
- (iii) activities undertaken in response to *fire* or any other reasonably foreseeable emergency; but

(b) does not include any other maintenance and repairs or rebuilding.

Interceptor trap A device which will separate and retain desired liquids and solids from a liquid stream and which will provide a water barrier to prevent foul air or gas from entering any downstream system.

CD-G14

Intermediate floor Any upper floor within a *firecell* and which is not *fire* separated from the floor below. Upper floors within *household units* need not meet the specific *fire* safety requirements which apply to *intermediate floors* in all other situations.

CD-C

COMMENT:

1. An *intermediate floor* may be open to the *firecell* or enclosed with non-*fire* rated *construction*. If enclosed with *fire* rated walls another *firecell* is created.
2. *Household units* occur only in *purpose groups* SR and SH. Life safety provisions are governed by the limitations in permitted *open path* lengths.

Amend 11
Sep 2010

Internal wall A wall other than an *external wall*.

Simple House

K

Kerb ramp means a short ramp either cutting through a kerb or built up to the kerb.

CD-D1

Kick-out A single fold applied to the edge of a horizontal metal *flashing* to deflect moisture away from the *cladding system* below. Refer also *Bird's beak*.

CD-E2

COMMENT:

A *kick-out* is used at the bottom of a *capping* or other *flashing* to deflect water away from the *cladding* below.

Definition

Source

L

Lead flashings Lead sheet *flashings* that:

Simple House

- (a) comply with AS 1804, and
(b) have a minimum unit mass of 17 kg/m².

Amend 11
Sep 2010

Licensee A *person* holding a licence issued under the Radiation Protection Act 1965 and for the time being in force.

CD-F8

Licensed building practitioner means a building practitioner whose name is, for the time being, entered in the register established and maintained under section 298(1) of the *Building Act 2004*.

BA04

Lightweight wall cladding Timber weatherboard (bevel-back or rusticated) or flat sheet (plywood or fibre-cement) *wall claddings* for use in this [Simple House] *Acceptable Solution*.

Simple House

Amend 11
Sep 2010

Limited area atrium A single *firecell* in which individual *occupied spaces* at different levels open onto a common enclosed space. Limitations are placed on the number of *intermediate floors* (no more than two levels), individual floor areas and permitted *occupant load*, depending on the provisions for smoke detection, smoke control and the *means of escape from fire*.

CD-C

COMMENT:

Typical *limited area atrium buildings* are small shopping malls, and motel complexes with a central atrium feature open to a number of floors.

Lining The rigid sheet covering for a wall, ceiling or other interior surface.

CD-E2

Lintel A horizontal *framing* member spanning an opening in a wall.

Simple House

Loadbearing stud A *stud* in a *loadbearing wall*.

Simple House

Loadbearing wall A wall supporting vertical loading from a *roof*.

Simple House

Loaded dimension The loaded dimension of structural elements which support other members at right angles. Refer to [SH/AS1] Figure 5.2.2.

Simple House

Amend 11
Sep 2010

Lock-out The safety shut down condition of the control system such that re-start cannot be accomplished without manual resetting.

CD-C, CD-G11

M

M A steel bolt of the stated *diameter* in millimetres.

Simple House

Main private stairway A *private stairway* intended to provide access to and between frequently used spaces such as living areas, kitchens and garages, and includes all exterior *private stairways*.

CD-D1

Masonry tiles Clay or concrete tile roof *cladding*.

CD-E2

Masonry veneer Clay or concrete block veneer *cladding*.

CD-E2

Definitions

NEW ZEALAND BUILDING CODE HANDBOOK

Definition	Source
<p>Means of escape from fire, in relation to a <i>building</i> that has a floor area,—</p> <p>(a) means continuous unobstructed routes of travel from any part of the floor area of that <i>building</i> to a place of safety, and</p> <p>(b) includes all active and passive protection features required to warn people of <i>fire</i> and to assist in protecting people from the effects of <i>fire</i> in the course of their escape from the <i>fire</i>.</p>	BA04
<p>Member span The clear distance between supports, measured along the member.</p>	Simple House
<p>Membrane A non-metallic material, usually synthetic, used as a fully supported roof <i>cladding</i>, <i>deck</i> surface or, in conjunction with other <i>claddings</i>, as gutters or <i>flashings</i>.</p>	CD-E2
<p>Minister means the Minister of the Crown who, under the authority of a warrant or with the authority of the Prime Minister, is responsible for the administration of the <i>Building Act 2004</i>.</p>	BA04
<p>Minor private stairway A <i>private stairway</i> not on a main thoroughfare, and intended to provide infrequent access to a single room which is not a living area or kitchen.</p>	CD-D1
<p>MSG Machine stress graded refers to timber that is initially sorted by machine, calibrated to NZS 3603. See also VSG.</p>	Simple House
<p>Multi-unit dwelling Applies to a <i>building</i> or use which contains more than one separate household or family.</p>	CD-C
<p>COMMENT: For <i>fire</i> safety purposes each <i>household unit</i> is a separate <i>firecell</i>.</p>	
N	
<p>Natural draught The flow produced by the tendency of warmed gases to rise.</p>	CD-G4
<p>Natural hazard has the meaning given to it by section 71 of the Building Act 2004.</p>	BA04
<p>Section 71(3) states:</p> <p>“(3) In this section and sections 72 to 74, natural hazard means any of the following:</p> <p>(a) erosion (including coastal erosion, bank erosion, and sheet erosion):</p> <p>(b) falling debris (including soil, rock, snow, and ice):</p> <p>(c) subsidence:</p> <p>(d) inundation (including flooding, overland flow, storm surge, tidal effects, and ponding):</p> <p>(e) slippage.”</p>	
<p>Net openable area is the area of windows or doors or other opening measured on the face dimensions of the openable building element concerned.</p>	CD-G4

Amend 11
Sep 2010Amend 11
Sep 2010Amend 11
Sep 2010

Definition

Source

Network utility operator means a person who—

BA04

- (a) undertakes or proposes to undertake the distribution or transmission by pipeline of natural or manufactured gas, petroleum, biofuel, or geothermal energy; or
- (b) operates or proposes to operate a network for the purpose of—
 - (i) telecommunication as defined in section 5 of the Telecommunications Act 2001; or
 - (ii) radiocommunications as defined in section 2(1) of the Radiocommunications Act 1989; or
- (c) is an electricity operator or electricity distributor as defined in section 2 of the Electricity Act 1992 for the purpose of line function services as defined in that section; or
- (d) undertakes or proposes to undertake the distribution of water for supply (including irrigation); or
- (e) undertakes or proposes to undertake a drainage or sewerage system

Amend 12
Oct 2011

Amend 11
Sep 2010

Nogging See **dwang**

Simple House

Nominal pile width The least width of a pile in side view and is equal to the diameter in round piles.

CD-B1

Non-combustible Materials shall be classified as *non-combustible* or *combustible* when tested to: AS 1530 – Part 1.

CD-B1, CD-C

Non-loadbearing stud A stud in a *non-loadbearing wall*.

Simple House

Amend 11
Sep 2010

Non-loadbearing wall A wall other than a *loadbearing wall*.

Simple House

Non-return valve A valve that permits flow in one direction but prevents a return flow and is part of a hot or cold water system.

CD-G12

Nosing The rounded projecting edge of a stair tread.

CD-D1, CD-F4

Notice to fix has the meaning given to it by section 164(2) of the *Building Act 2004*.

BA04

Section 164(2) states:

- “(2) A responsible authority must issue to the specified person concerned a notice (a notice to fix) requiring the person—
- (a) to remedy the contravention of, or to comply with, this Act or the regulations; or
 - (b) to correct the warrant of fitness; or
 - (c) to properly comply with the inspection, maintenance, or reporting procedures stated in the compliance schedule.”

Notional boundary The *boundary* which for *fire* safety purposes, is assumed to exist between two *buildings* on the same property under a single land title.

CD-C

COMMENT:

A *notional boundary* may be located anywhere between the two *buildings* on the same property. It is not fixed and for the purposes of calculating permitted unprotected areas of each *building* it can be moved towards the other *building* thus maximising the permitted *unprotected area*.

Amend 11
Sep 2010

NUO system means a system owned or controlled by a *network utility operator*.

BA04

NZBC New Zealand Building Code.

CD-E2

Amend 12
Oct 2011

Definition	Source
O	
Occupant load The greatest number of people likely to occupy a particular space within a <i>building</i> . It is determined by:	CD-C, CD-F6, CD-F7
(a) Multiplying the number of people per m ² (occupant density) for the activity being undertaken, by the total floor area, or	
(b) For sleeping areas, counting the number of beds, or	
(c) For fixed seating areas, counting the number of seats.	
Occupied space Any space within a <i>building</i> in which a <i>person</i> will be present from time to time during the <i>intended use</i> of the <i>building</i> .	Code
Open path That part of an <i>escape route</i> (including <i>dead ends</i>) not protected by <i>fire</i> or <i>smoke separations</i> , and which terminates at a <i>final exit</i> or <i>exitway</i> .	Code
Open space includes land on which there is and will be no <i>buildings</i> and which has no roof over any part of it other than overhanging eaves.	CD-C
Open vented storage water heater A <i>water heater</i> incorporating a <i>vent pipe</i> which is permanently open to the atmosphere.	CD-G12
Other property—	BA04
(a) means any land or <i>buildings</i> , or part of any land or <i>buildings</i> , that are—	
(i) not held under the same <i>allotment</i> ; or	
(ii) not held under the same ownership; and	
(b) includes a road	
Outdoor air Air as typically comprising by volume:	Code
(i) oxygen 20.94%	
(ii) carbon dioxide 0.03%	
(iii) nitrogen and other inert gases 79.03%.	
Outfall That part of the disposal system receiving <i>surface water</i> or <i>foul water</i> from the drainage system. For <i>foul water</i> , the <i>outfall</i> may include a <i>sewer</i> or a <i>septic tank</i> . For <i>surface water</i> , the <i>outfall</i> may include a natural water course, kerb and channel, or soakage system.	Code
Over-pressure protection Devices preventing the pressure in piping or appliances from exceeding a predetermined value.	CD-G11
Owner , in relation to land and any <i>buildings</i> on the land,—	BA04
(a) means the <i>person</i> who—	
(i) is entitled to the rack rent from the land; or	
(ii) would be so entitled if the land were let to a tenant at a rack rent; and	
(b) includes—	
(i) the <i>owner</i> of the fee simple of the land; and	
(ii) any <i>person</i> who has agreed in writing, whether conditionally or unconditionally, to purchase the land or any leasehold estate or interest in the land or to take a lease of the land and who is bound by the agreement because the agreement is still in force.	

Definition	Source
P	
Parallel flashing A roof <i>flashing</i> that runs along the roof slope, parallel to the roof <i>cladding</i> profile. Also known as a longitudinal <i>flashing</i> .	CD-E2
Parapet A timber-framed wall that extends above the level of the roof <i>cladding</i> . Refer also Enclosed balustrade.	CD-E2
Passive stack ventilator A system including a ventilation shaft which uses natural draught to ventilate spaces.	CD-G4
Penetration A pipe, cable or duct passing through an opening in a <i>fire separation</i> .	CD-C
Penstocks are conduits to control the flow of water in water supply, hydroelectric power and sewerage systems. Penstocks are normally equipped with a gate system and surge tank.	DG
People with disabilities People whose ability to use <i>buildings</i> is affected by mental, physical, hearing or sight impairment.	Code
Performance criteria in relation to a <i>building</i> , means those qualitative or quantitative criteria that the <i>building</i> is required to satisfy in performing its <i>functional requirement</i> .	BA04
Permanent opening An opening which cannot be closed, this implies that doors, windows etc are NOT permanent openings, although door undercuts are.	CD-G4
Person includes— (a) the Crown; and (b) a corporation sole; and (c) a body of persons (whether corporate or unincorporate)	BA04
Person with a disability means a <i>person</i> who has an impairment or a combination of impairments that limits the extent to which the <i>person</i> can engage in the activities, pursuits, and processes of everyday life, including, without limitation, any of the following: (a) a physical, sensory, neurological, or intellectual impairment; (b) a mental illness.	BA04
Piping system An assembly of pipes, pipe fittings, gaskets, bolting and pipe supports.	CD-G14
Pitch line The line joining the leading edge or <i>nosings</i> (if any) of successive stair treads within a single flight of <i>stairs</i> .	CD-F4 (Sep 07)
Plans and specifications— (a) means the drawings, specifications, and other documents according to which a <i>building</i> is proposed to be <i>constructed</i> , <i>altered</i> , demolished, or removed; and (b) includes the proposed procedures for inspection during the <i>construction</i> , <i>alteration</i> , demolition, or removal of a <i>building</i> ; and (c) in the case of the <i>construction</i> or <i>alteration</i> of a <i>building</i> , also includes— (i) the <i>intended use</i> of the <i>building</i> ; and (ii) the <i>specified systems</i> that the applicant for <i>building consent</i> considers will be required to be included in a <i>compliance schedule</i> required under section 100; and	BA04

Definition	Source
(iii) the proposed procedures for inspection and routine maintenance for the purposes of the <i>compliance schedule</i> for those <i>specified systems</i> .	
Amend 11 Sep 2010 Plate A timber member supported by a <i>foundation</i> or <i>studs</i> to support and distribute the load from floors, walls, <i>roofs</i> or ceilings. See bottom plate , top plate .	Simple House
Plumbing system Pipes, joints and fittings laid above ground and used for the conveyance of <i>foul water</i> to the <i>foul water drain</i> , and includes <i>vent pipes</i> .	Code
Amend 11 Sep 2010 Post An isolated vertical member acting as a support.	Simple House
Potable (and potable water) Water that is suitable for human consumption.	CD-G12
Potential impact classification is related to the consequence (effects) of the <i>dam</i> failing, if it should release its stored contents. Consequences include loss of life, socio-economic, financial and environmental.	DG
Prescribed electrical work has the meaning given to it by section 2(1) of the Electricity Act 1992.	BA04, EA
Primary element A <i>building element</i> providing the basic load bearing capacity to the structure, and which if affected by <i>fire</i> may initiate instability or premature structural collapse.	CD-B2, CD-C
COMMENT: Suspended floors in multi-storey <i>buildings</i> are <i>primary elements</i> .	
Principal user A member of the primary group for which a <i>building</i> was constructed, and therefore explicitly excludes <i>persons</i> or groups of <i>persons</i> providing care or control of that <i>principal user</i> group.	Code
Privacy The situation of being withdrawn from view.	CD-G1
Private stairway A <i>stairway</i> used, or intended to be used, by the occupants of a single <i>household unit</i> .	CD-D1
Privy A private room containing a receptacle (other than a WC) or an excavation for excreted liquid or solid human waste, and with a means of disposal or containment of the waste.	CD-G1
Producer statements are formal statements supplied by or on behalf of (i) an applicant for a <i>building consent</i> , or (ii) by or on behalf of a <i>person</i> who has carried out <i>building work</i> . that can be accepted by a <i>building consent authority</i> as verification that certain work will be or has been carried out in accordance with nominated performance requirements of the <i>Building Code</i> .	HB
COMMENT: Although no longer expressly referred to in the <i>Building Act 2004</i> , these could be accepted and considered as part of the plans or specifications.	
Product certificate means a certificate issued under section 269 of the <i>Building Act 2004</i> that a <i>building consent authority</i> must accept as establishing compliance with the <i>Building Code</i> .	HB
Product certification accreditation body means the <i>person</i> referred to in section 261(2) of the <i>Building Act 2004</i> .	BA04

Definition

Source

Property includes land, *buildings*, and goods; but does not include incorporeal forms of *property*.

BA04

Proprietary fasteners *Proprietary fasteners* may be used where the fixing *capacity* of fixings are specifically identified in this [SH/AS1] *Acceptable Solution*.

Simple House

Manufacturers of a timber connector or fixing shall provide the following information on each package of fixings, or on a securely attached label:

- (a) the name, or registered trade name, or make and address of manufacturer
- (b) the materials used in manufacture including fasteners and corrosion protection
- (c) the load capacity of the timber connector or fixing in kN determined in accordance with the following equation:

$$R = \varphi \times Q_k \times n \times k$$

Where:

- R = connector capacity in kN
- φ = capacity reduction factor from NZS 3603
- Q_k = characteristic value obtained by test in accordance with BRANZ Evaluation Method EM1 or AS/NZS 2699: Part 2 as appropriate
- n = number of tested elements making up the complete joint
- k = modification factors from NZS 3603 (Section 4) as appropriate to specific application.

- (d) fastener's requirements

- (e) details of *intended use*

- (f) durability in accordance with Paragraph 2.5.4.

Protected path That portion of an *exitway* within a *firecell* which is protected from the effects of smoke by *smoke separations*.

Code

Protected shaft A space, other than a *safe path*, enclosed by *fire separations* or *external walls* used to house *building services*, lifts, or conveyors which pass from one *firecell* to another.

CD-C

Purlin A horizontal member laid to span across *rafters* or trusses, and to which the roof *cladding* is attached.

CD-E2

Purlin Includes **tile batten**. A horizontal member laid to span across *rafters* or trusses and to which the roof *cladding* is attached.

Simple House

Purpose group The classification of spaces within a *building* according to the activity for which the spaces are used.

Code

Amend 11
Sep 2010

Amend 11
Sep 2010

Definition	Source
R	
Amend 11 Sep 2010 R A plain round reinforcing bar of the stated <i>diameter</i> in millimetres.	Simple House
R-value The common abbreviation for describing the values of both <i>thermal resistance</i> and <i>total thermal resistance</i> .	CD-E3, CD-G5, CD-H1
Radiocommunications has the same meaning as in section 2(1) of the Radiocommunications Act 1989.	
Rafter A <i>framing</i> timber, normally parallel to the slope of the roof, providing support for sarking, <i>purlins</i> or roof <i>cladding</i> .	CD-E2
Amend 11 Sep 2010 Rafter A <i>framing</i> timber normally parallel to the slope of the <i>roof</i> and providing support for the <i>purlins</i> or <i>roof</i> covering, or ceiling <i>lining</i> .	Simple House
Railway line has the meaning ascribed to it by section 2 of the Transport Services Licensing Act 1989.	CD-C, RA
The definition of 'Railway line' in the Transport Services Licensing Act 1989 has been repealed by the Railways Act 2005. Section 4 of the Railways Act 2005 now contains the definition for "railway line".	
Section 4 states	
"railway line" —	
(a) means a single rail or set of rails, having a gauge of 550 mm or greater between them, laid for the purposes of transporting people or goods by rail; and	
(b) includes—	
(i) sleepers, associated formation and ballast, tunnels, and bridges; and	
(ii) in relation to a single rail or set of rails that are laid on a road for the purposes of 1 or more light rail vehicles,—	
(A) any area between the rails; and	
(B) the area that extends 500 mm outside the extremity of any light rail vehicle being used on that single rail or set of rails; and	
(iii) a set of rails, having a gauge of less than 550 mm between them, that is designated as a railway line in regulations made under section 59(l); and	
(iv) except as provided in subparagraph (ii), any area within 5 m of a single rail or within 5 m of a line drawn midway between a set of rails; but	
(c) excludes—	
(i) a railway line that is part of a railway used as an amusement device as defined in section 21A(1) of the Machinery Act 1950:	
(ii) a railway line excluded by regulations made under section 59(m):	
(iii) a railway line that exclusively serves private cable cars".	
Reasonably visible , in relation to a <i>specified feature</i> , and for the purposes of Clause F6, means that the <i>specified feature</i> is visible to a person who—	Code
(a) is 10 metres from it, or the greatest distance from it that it is possible to go in the open space surrounding it, whichever is the lesser; and	
(b) has sight that is not defective, or is corrected (for example, by an optical appliance).	
Amend 11 Sep 2010	

Definition	Source
Reflectance The ratio of the flux reflected from a surface to the flux incident on it.	CD-G7, CD-G8
Regional authority means— (a) a <i>regional council</i> ; or (b) a <i>unitary authority</i>	BA04
Regional council has the meaning given to it by section 5(1) of the Local Government Act 2002.	BA04
Registrar has the meaning given to it by section 282 of the <i>Building Act 2004</i> .	BA04
Regulations means regulations in force under the <i>Building Act 2004</i> .	BA04
Regulator A device which automatically regulates the pressure or volume of gas passing through it to a predetermined level.	CD-G10, CD-G11
Reinforcement Any form of reinforcing rod, bar or mesh that complies with the relevant requirements of NZS 3109.	Simple House
Relevant boundary means the <i>boundary</i> of an <i>allotment</i> which is <i>other property</i> in relation to the <i>building</i> concerned and from which is measured the separation between the <i>building</i> and that <i>other property</i> . For the <i>external wall</i> of any <i>building</i> , the <i>relevant boundary</i> shall be the nearest of the following <i>boundaries</i> : (a) A <i>boundary</i> of a freehold <i>allotment</i> , except that where the <i>other property</i> is a road, railway line or public <i>open space</i> the <i>relevant boundary</i> is the <i>boundary</i> on the far side of that <i>other property</i> . (b) A <i>boundary</i> of a cross-lease or of a company lease or licence, except that where the <i>other property</i> is <i>open space</i> to which the lessee or licensee of the <i>building</i> concerned has an exclusive right of access and occupation or to which two or more occupiers have rights of access and occupation the <i>relevant boundary</i> is the <i>boundary</i> on the far side of that <i>other property</i> . (c) A <i>boundary</i> shown on a unit plan excluding a <i>boundary</i> between a principal unit and its accessory unit, except that where the <i>other property</i> is <i>open space</i> which is common property, the <i>relevant boundary</i> is the <i>boundary</i> on the far side of that <i>other property</i> .	CD-C

Amend 11
Sep 2010

Definition

Source

COMMENT:

1. Where an easement, such as a right of way, occurs within an *allotment*, the *relevant boundary* shall remain the same as if the easement did not exist.
2. *Boundaries* within a cross-lease or company lease or licence are shown on a survey plan. In some cases the *boundary* is the *external wall* or roof of a *building*.
3. The unit title *boundaries* of principal units, accessory units, and common property are shown in the unit plan. A *boundary* is frequently an internal or *external wall*, an upper floor, or the roof of a *building*.
4. A wall along a *boundary* between two *allotments* is called a "party wall" when the *owners* of the *allotments* each have legal rights in respect of that wall registered by way of easements on one or both titles. An internal wall between cross-leases, company leases, or unit titles, or between one of them and common property, is not generally called a party wall but in that case also the lessees, unit title holders, or corporate body concerned each have legal rights in respect of that wall. Such a wall separates areas which are *other property* in relation to each other, but the wall itself is part of each property. The *fire protection* consequence of that legal concept is that such a wall can be regarded as a *fire separation* providing protection against horizontal *fire spread* in each direction. In other words, that wall may provide the appropriate *FRR* instead of each property having its own wall of that *FRR*.

Relief vent A *vent pipe* which is connected to a *discharge stack* below the lowest branch connection and which connects at its upper end to the *discharge stack vent* or terminates as an open vent.

CD-G13

Reservoir Body of water impounded by one or more *dams* or dikes, inclusive of its shores and banks and of any facility or installation necessary for its operation.

DG

Ribbon board Includes **soffit plate**. A horizontal *framing* timber secured to, or checked into, the edges of *studs* and supporting *eaves bearers*.

Simple House

Ridge beam A single beam that supports *rafters* of a *skillion roof*.

Simple House

Risk group A, for the purposes of performance F6.3.4 and performance F6.3.5, means *buildings*—

Code

- (a) whose occupants are required to remain in the *building* until the main lighting system is restored; or
- (b) whose *evacuation time* is longer than 90 minutes.

Risk group B, for the purposes of performance F6.3.4 and performance F6.3.5, means *buildings*—

Code

- (a) whose *evacuation time* is 30 minutes or longer but not longer than 90 minutes; or
- (b) whose occupant load is more than 1 000.

Risk group C, for the purposes of performance F6.3.4, means *buildings* not in *risk group A* or *risk group B*.

Code

Reservoir capacity Total or gross storage capacity of the *reservoir* at full supply level.

DG

Risk matrix A table that allows the calculation of a *risk score* by the allocation and summing of scores for a range of design and location factors applying to a specific *building design*.

CD-E2

Amend 11
Sep 2010

Definition

Source

Risk score An aggregated numerical score for a proposed *building* as defined by E2/AS1. The *risk score* is determined by completion of the *risk matrix*.

CD-E2

Road has the meaning ascribed to it by section 315 of the Local Government Act 1974 and includes a public place and also includes a motorway.

CD-C/LGA

Rodding point A removable cap at ground level through which access may be made for cleaning and inspecting the drainage system.

CD-E1, CD-G13

Amend 12
Oct 2011

Roof That part of a *building* having its upper surface exposed to the outside and at an angle of 60° or less to the horizontal.

CD-E2

Amend 11
Sep 2010

Roof That part of the *building* having its upper surface exposed to the outside and at an angle of between 10° and 35° to the horizontal. See **skillion roof**.

Simple House

Amend 12
Oct 2011

Roof underlay An absorbent permeable building paper that absorbs or collects condensation or water in association with *roof cladding* performance.

CD-E2

Roof underlay An absorbent, permeable paper that absorbs or collects condensation or water that may penetrate the *roof cladding*.

Simple House

The *roof underlay* shall have the properties in Table 23 of the *Acceptable Solution* E2/AS1 for Building Code Clause E2 External Moisture:

- (a) absorbency of 100 g/m² or greater
- (b) vapour resistance 7 MN s/g or less
- (c) water resistance of 100 mm or greater
- (d) pH of extract of between 6.0 and 9.0
- (e) shrinkage no more than 0.5%

Amend 11
Sep 2010

- (f) mechanical edge tear and tensile strength to AS/NZS 4200.

Room-sealed appliance An appliance designed so that air for combustion neither enters from, nor combustion products enter into, the room in which the appliance is located.

CD-G4

Amend 11
Sep 2010

Running bonds, See **bond**

Simple House

S

Saddle flashing A *flashing* used to weatherproof the junction between a horizontal and vertical surface.

CD-E2

Safe path That part of an *exitway* which is protected from the effects of *fire* by *fire separations*, *external walls*, or by distance when exposed to open air.

Code

Safe place A place of safety in the vicinity of a *building*, from which people may safely disperse after escaping the effects of a *fire*. It may be a place such as a street, *open space*, public space or an *adjacent building*.

Code

Safety colour (green, red or yellow) A colour of specified properties to which a safety meaning is attributed.

CD-F8

Safety glass means a glass so treated or combined with other materials as to reduce the likelihood of injury to *persons* when it is cracked or broken.

CD-F2

Definition	Source
Safety shut-off system An arrangement of valves and associated control systems which shuts off the supply of gas when required by a device which senses an unsafe condition.	CD-G10
Safety sign A particular type of sign which comprises a geometric form and a <i>safety colour</i> , together with a <i>safety symbol</i> or text (that is, words, letters, numbers or a combination of these) and gives a particular safety message.	CD-F8
Safety symbol means a graphic symbol used in a <i>safety sign</i> .	CD-F8
Sanitary appliance An appliance which is intended to be used for <i>sanitation</i> , but which is not a <i>sanitary fixture</i> . Included are machines for washing dishes and clothes.	Code
Sanitary fixture Any <i>fixture</i> which is intended to be used for <i>sanitation</i> .	Code
Sanitation The term used to describe the activities of washing and/or excretion carried out in a manner or condition such that the effect on health is minimised, with regard to dirt and infection.	Code
Scaffolding used in the course of the <i>construction</i> process, means any structure, framework, swinging stage, suspended <i>scaffolding</i> , or boatswain's chair, that is of a temporary nature and that is used or intended to be used for: the support or protection of workers engaged in, or in connection with <i>construction</i> work for the purpose of carrying out that work, or the support of materials used in connection with the work; and includes any plank, coupling, fastening, fitting, or device used in connection with the <i>construction</i> , erection, or use of <i>scaffolding</i> .	BA04
Scupper An opening in a <i>parapet</i> or <i>enclosed balustrade</i> to allow water to drain into a rainwater head.	CD-E2
Sealant A flexible neutral cure sealant for gap filling and weatherproofing that complies with: (a) Type F, Class 20 LM or 25 LM of ISO 11600, or (b) low modulus Type II Class A of Federal Specification TT-S-00230C.	Simple House
Secondary element A <i>building element</i> not providing load bearing capacity to the structure and if affected by <i>fire</i> , instability or collapse of the <i>building</i> structure will not occur.	CD-B2, CD-C
Secondary flow path The path over which <i>surface water</i> will follow if the drainage system becomes overloaded or inoperative.	CD-E1
Secondary private stairway A <i>private stairway</i> other than a <i>main</i> or <i>minor private stairway</i> , intended to provide access to another floor containing only bedrooms, bathroom or similar accommodation.	CD-D1
Service ramp means a ramp that is used, or intended to be used, infrequently by service personnel to gain access to spaces for the purposes of maintenance and the movement of goods.	CD-D1
Service stairway means a <i>stairway</i> that is used, or intended to be used, infrequently by service personnel to gain access to spaces for the purposes of maintenance and the movement of goods.	CD-D1
Sewer A <i>drain</i> that is under the control of, or maintained by, a <i>network utility operator</i> .	Code

Amend 11
Sep 2010

Definition

Source

Amend 12
Oct 2011

Sill support bar A bar or mechanism complying with EM6, E2/VM1 tests, and Clause B2 of the *Building Code*, and used to support the weight of aluminium window and door joinery that is installed over drained cavities.

CD-E2

Amend 11
Sep 2010

Simple house A house that is described in Section 1 of this [SH/AS1] *Acceptable Solution*.

Simple House

Sitework means work on a *building* site, including earthworks, preparatory to, or associated with the *construction*, *alteration*, demolition, or removal of a *building*.

BA04

Amend 11
Sep 2010

Skillion roof A pitched *roof* where the ceiling *lining* is parallel and close to the *roof cladding*. The *roof* may be mono-pitch or may consist of more than one *roof* plane. These *roofs* may have *rafters* exposed below the ceiling.

Simple House

Smokecell A space within a *building* which is enclosed by an envelope of *smoke separations*, or *external walls*, *roofs*, and *floors*.

CD-C

Smoke control door A *doorset* with closefitting single or multi-leaves which are impermeable to the passage of smoke, fitted with smoke seals and installed within a *smoke separation*. The door, in the event of smoke, if not already closed, will close automatically and be held closed.

CD-C

COMMENT:

1. A *smoke control door* may be held closed by use of a door closer. The door need not be latched.
2. Requirements for *smoke control doors* are given in C/AS1 Paragraph 6.19.1 and 6.19.8, and Appendix C Paragraph C8.1.

Smoke developed index (SDI) That index number for smoke developed when determined according to the *standard test* method for measuring the properties of lining materials.

CD-C

Smoke separation Any vertical, horizontal or inclined *building element* with known *smoke-stopping* or *smoke-leakage characteristics*.

Code

Socket outlet An accessory fixed to a wall or ceiling and designed to accept a plug that extends the electrical supply to an appliance by means of a flexible cable.

CD-G2

Amend 11
Sep 2010

Soffit bearer See **eaves bearer**.

Simple House

Soffit plate See **ribbon board**.

Simple House

Soft edge A compatible soft edging seamed onto *flashings* to provide closure to profiled *cladding*.

CD-E2

Soil fixture A *sanitary fixture* constructed to receive solid and/or liquid excreted human waste. It includes bedpan disposal units, slop sinks, urinals, water closet pans, and water-flushed sanitary towel disposal units.

CD-G1, CD-G13

Sound transmission class (STC) A single number rating derived from measured values of transmission loss in accordance with classification ASTM E 413, Determination of Sound Transmission Class. It provides an estimate of the performance of a partition in certain common sound insulation situations.

Code

Amend 11
Sep 2010

Spacing or spaced The distance at which members are spaced, measured centre to centre.

Simple House

	Definition	Source
Amend 11 Sep 2010	Spans See member span and support span .	Simple House
Amend 12 Oct 2011	Specific design Design and detailing for compliance with the <i>Building Code</i> , of a proposed part or parts of a <i>building</i> which are not shown in this Acceptable Solution.	CD-E2
	Specific design Design and detailing of a proposed <i>building</i> or parts of a <i>building</i> , demonstrating compliance with the Building Code, that shall be provided to the <i>building consent authority</i> for assessment and approval as part of the <i>building consent</i> process. <i>Buildings</i> , or parts of <i>buildings</i> , requiring <i>specific design</i> are beyond the scope of the <i>Simple House Acceptable Solution</i> .	Simple House
	Specified features , for the purposes of Clause F6, means the following: (a) <i>building elements</i> that may act as obstructions: (b) safety features required under clauses of the <i>Building Code</i> other than Clause F6 (for example, <i>handrails</i> required under Clause D1): (c) changes in direction: (d) stairs and ramps: (e) escape doors: (f) entries to a <i>safe place</i> .	Code
Amend 11 Sep 2010	Specified intended life has the meaning given to it by section 113(3) of the Building Act 2004. Section 113(3) states: “(3) In subsection (2), specified intended life , in relation to a building, means the period of time, as stated in an application for a building consent or in the consent itself, for which the building is proposed to be used for its intended use.”	BA04
	Specified system— (a) means a system or feature that— (i) is contained in a <i>building</i> ; and (ii) contributes to the proper functioning of the <i>building</i> (for example, an automatic sprinkler system); And (iii) is declared by the Governor-General, by Order in Council, to be a <i>specified system</i> for the purposes of this Act; and (b) includes a cable car.	BA04
	Spread of flame index (SFI) That index number for spread of flame which is determined according to the <i>standard test</i> method for measuring the properties of lining materials.	CD-C
	Spillway Weir, channel, conduit, tunnel, gate or other structure designed to permit discharges from the reservoir.	DG

Definition

Source

Stability In the context of *fire* protection, the time in minutes for which a prototype specimen of a *primary element*, when subject to the *standard test* for *fire* resistance, has continued to carry its *fire* design load without failure.

Code

COMMENT:

The *fire* design load should be as specified in B1/VM1.

Stairway A series of steps or stairs with or without landings, including all necessary *handrails* and giving access between two different levels.

CD-C, CD-D1

Stainless steel flashings Stainless steel *flashings* shall be:

Simple House

(a) minimum thickness of 0.45 mm, and

(b) Type 304 or 316 stainless steel in accordance with Table 1 of ISO/TS 15510.

Stanchion A connecting device, fixed into the structure of a *building*, that provides support for *handrails*, aeriels and similar structures.

CD-E2

Standards means specifications for *building* materials, methods, processes or practices that provide a basis for determining consistent and acceptable minimum levels of quality, performance, safety and reliability.

HB

COMMENT:

Standards are developed by organisations that are recognised by the Government. In New Zealand, standards are developed by a trading arm of the Standards Council, a crown entity operating under the Standards Act 1988. In Australia, standards are developed by Standards Australia, which is recognised through a memorandum of understanding with the Commonwealth Government.

Standard test A test method which is recognised as being appropriate for the *fire* protection properties being assessed.

CD-C

COMMENT:

A list of *standard test* methods is given in Appendix C of C/AS1.

Standard year For the purposes of determining natural lighting, the hours between 8 am and 5 pm each day with an allowance being made for daylight saving.

Code

Statutory authority means an authority or organisation that has the statutory power to classify or register land or *buildings* for any purpose.

BA04

Stopend A turn-up at the upper edge of profiled metal *cladding*, or at the end of gutters and some types of *flashings*.

CD-E2

COMMENT:

A *stopend* assists the control of moisture by ensuring any moisture reaching the edge of the roofing is deflected from further entry.

Storage water heater A *water tank* with an integral *water heater* for the storage of hot water.

CD-G12

Storey That portion of a *building* included between the upper surface of any floor and the upper surface of the floor immediately above, except the top *storey* shall be that portion of a *building* included between the upper surface of the topmost floor and the ceiling or roof above.

CD-E2

Amend 11
Sep 2010

Amend 11
Sep 2010

Definition	Source
Strength reduction factor The factor by which the ultimate strength is multiplied to obtain the design strength.	CD-B1
COMMENT: NZS 4203: 1992 uses the terms ideal strength in place of ultimate strength, and dependable strength in place of design strength.	
Amend 11 Sep 2010 Stretcher bonds , See bond	Simple House
Structural fire endurance rating (S) The <i>fire resistance rating (FRR)</i> intended to prevent <i>fire</i> spread or structural collapse for the complete burnout of the <i>firecell</i> .	CD-C
Stucco A wall <i>cladding system</i> formed from reinforced solid plaster over a rigid or non-rigid backing.	CD-E2
Stud A vertical <i>framing timber</i> .	CD-E2
Suite A <i>firecell</i> providing residential accommodation for the exclusive use of one <i>person</i> or of several people known to one another. It comprises one or more rooms for sleeping and may include spaces used for associated domestic activities such as hygiene and cooking.	CD-C, CD-F7
COMMENT: 1. Bed numbers are limited to 6 in <i>purpose groups</i> SC and SD or 12 in <i>purpose group</i> SA in accordance with C/AS1 Paragraphs 6.6.5 and 6.7.6. Examples may be found in hotels, motels and residential care facilities, such as old people's homes or in hospices providing temporary family accommodation. 2. It is assumed that the social cohesion of the occupants by virtue of the personal relationship (as family members, friends or associates) would ensure that any individual, becoming aware of <i>fire</i> , would naturally assist others within the <i>firecell</i> to escape. The term <i>suite</i> does not apply to a group of bedrooms where each room is available to different "key-holders". In some cases a <i>suite</i> may be a single bedroom.	
Sump A chamber which is installed in the <i>drain</i> and incorporates features to intercept and retain silt, gravel and other debris.	CD-E1
Supervise , in relation to <i>building work</i> , means provide control or direction and oversight of the <i>building work</i> to an extent that is sufficient to ensure that the <i>building work</i> — (a) is performed competently; and (b) complies with the <i>building consent</i> under which it is carried out.	BA04
Amend 11 Sep 2010 Support span A clear distance along a member between supports, measured in plan (horizontally).	Simple House
Surface finish The combination of a surface coating and substrate material on surfaces of <i>building elements</i> exposed to view. It can be an applied decorative coating or the uncoated <i>building element</i> itself. For interior surfaces the requirements are evaluated in terms of <i>SFI</i> and <i>SDI</i> . For exterior surfaces the requirements are evaluated in terms of rate of heat release as determined by Appendix C, Paragraph C9.1.	CD-C
Surface water All naturally occurring water, other than sub-surface water, which results from rainfall on the site or water flowing onto the site, including that flowing from a <i>drain</i> , stream, river, lake or sea.	Code

Definition

Source

T

Tailing dam *Dam* constructed to retain tailings or other waste materials from mining or industrial operations.

DG

Tailpipe A device placed at the low point of a gas piping system to collect condensate, and from which the condensate may be removed.

CD-G10

Territorial authority (TA) means a city council or district council named in Part 2 of Schedule 2 of the Local Government Act 2002; and—

BA04

(a) in relation to land within the district of a *territorial authority*, or a *building* on or proposed to be built on any such land, means that *territorial authority*; and

(b) in relation to any part of a coastal marine area (within the meaning of the Resource Management Act 1991) that is not within the district of a *territorial authority*, or a *building* on or proposed to be built on any such part, means the *territorial authority* whose district is adjacent to that part.

Territorial authority City or district council (as named in Schedule 2, Part 2 of the Local Government Act 2002) responsible for community wellbeing and development, environmental health and safety (including building control, civil defence, and environmental health matters), infrastructure (roading and transport, sewerage, water/stormwater), recreation and culture, and resource management including land use planning and development control.

Simple House

Theatre A place of assembly intended for the production and viewing of performing arts, and consisting of an auditorium and stage with provision for raising and suspending stage scenery above and clear of the working area.

CD-C,
CD-F4 (Sep 07)

Thermal resistance The resistance to heat flow of a given component of a *building element*. It is equal to the air temperature difference (°C) needed to produce unit heat flux (W/m²) through unit area (m²) under steady conditions. The units are °Cm²/W.

Code

Threshold A sill to an external door, or the floor under an internal door.

CD-D1

Tile batten See **purlin**.

Simple House

Top plate A plate placed over the top end of *studs*.

Simple House

Total thermal resistance The overall air-to-air *thermal resistance* across all components of a *building element* such as a wall, roof or floor. (This includes the surface resistances which may vary with environmental changes eg, temperature and humidity, but for most purposes can be regarded as having standard values as given in NZS 4214.)

CD-E3, CD-G5

Total wall area, in relation to a *building*, means the sum (expressed in square metres) of the following:

Code
Simple House

(a) the *wall area* of the *building*; and

(b) the area (expressed in square metres) of all vertical glazing in *external walls* of the *building*.

Amend 11
Sep 2010Amend 11
Sep 2010Amend 11
Sep 2010

Definition	Source
Town gas A manufactured gas.	CD-G11
Toxic environment An environment that contains <i>contaminants</i> that can contaminate the water supply in concentrations greater than those included in the New Zealand Drinking Water Standard 1995.	CD-G12
Trade means any trade, business, industry, profession, occupation, activity of commerce, or undertaking relating to— (a) the supply or acquisition of goods or services; or (b) the acquisition of <i>household units</i> or any interest in land.	BA04
Transverse flashing A roof <i>flashing</i> that runs across the roof slope, at right angles to the roof <i>cladding</i> profile.	CD-E2
Trap A chamber which is installed in the <i>drain</i> and incorporates features to intercept and retain floatable debris.	CD-E1
Trapezoidal A type of profiled metal <i>cladding</i> with symmetrical or asymmetrical crests, with troughs between the crests.	CD-E2
Travel distance The length of the <i>escape route</i> as a whole or the individual lengths of its parts, namely: (a) <i>Open paths</i> (b) <i>Protected paths</i> and (c) <i>Safe paths</i> .	Code
Trickle ventilator A controllable ventilation opening through the external envelope to the outside to provide background ventilation.	CD-G4
Trimmer A member supporting the wall <i>framing</i> beneath, or over an opening in a <i>non-loadbearing wall</i> and carrying wind loads to the <i>trimmer studs</i> .	Simple House
Trimmer stud A <i>stud</i> located on the side of an opening.	Simple House
Trough profile A type of profiled metal <i>cladding</i> comprising vertical ribs with flat, or lightly profiled pans between the ribs. Also known as ribbed, secret fixed or tray profile.	CD-E2

Amend 11
Sep 2010

Definition

Source

U

Amend 12
Oct 2011

Underlay The material used behind a *roof* or *wall cladding*. Refer **Wall underlay** and **Roof underlay**. **CD-E2**

Unisex facilities Facilities available for use by either sex. **CD-G1**

COMMENT:

Unisex facilities may also be described as both gender facilities.

Unitary authority has the meaning given to it by section 5(1) of the Local Government Act 2002. **BA04/LGA**

Section 5(1) states:

“**unitary authority**” means a territorial authority that has the responsibilities, duties, and powers of a regional council conferred on it under—
(a) the provisions of any Act; or
(b) an Order in Council giving effect to a reorganisation scheme”

Amend 11
Sep 2010

Universal access Where elements and spaces are accessible to and usable by people of all ages and abilities to the greatest extent possible. **Simple House**

Unprotected area in relation to an *external wall* of a *building* means: **Code**

- (a) Any part of the *external wall* which has less than the required *FRR*.
For example, a non *fire* rated window, door or other opening or sheet metal.
- (b) Any part of the *external wall* which has *combustible* material more than 1.0mm thick attached to or applied to its external face, whether for *cladding* or any other purpose.

uPVC flashings uPVC *flashings* shall be a minimum of 0.75 mm thick and: **Simple House**

- (a) comply with the requirements of the following Clauses of AS/NZS 4256: Part 2:
- ii) Clause 9.2 Impact resistance
 - iii) Clause 9.3 Tensile strength
 - iv) Clause 9.4 Colourfastness and impact resistance following ultraviolet light exposure.
- (b) where exposed to the weather, shall also comply with Section 8 of AS/NZS 4256: Part 2.
- (c) have a finish colour with a reflectance of 40% or more, when measured in accordance with ASTM C1549 or ASTM E903.

Amend 11
Sep 2010

V

Amend 11
Sep 2010

Valley board A board laid to support a *valley gutter*. **Simple House**

Valley gutter A gutter running down the valley formed by the intersection of two pitched roof surfaces. **CD-E2**

Valve vented storage water heater (unvented storage water heater) A *storage water heater* in which the required venting to the atmosphere is controlled by a valve. **CD-G12**

Vapour barrier Sheet material or coating having a low water-vapour transmission, and used to minimise water-vapour penetration in *buildings*. **CD-B2**
(*Vapour barriers* are sometimes referred to as *damp-proof membranes*.)

Definitions

NEW ZEALAND BUILDING CODE HANDBOOK

Definition	Source
Vent line A pipe or tube which conveys gas to a safe place outside the <i>building</i> from a gas pressure <i>regulator</i> relief valve.	CD-G10
Vent pipe A pipe for the purpose of protecting <i>water seals</i> that at its upper end is either open to the atmosphere or fitted with an <i>air admittance</i> valve and that at its lower end is connected to a <i>discharge pipe</i> .	CD-G13
Verification Method means a method by which compliance with the <i>Building Code</i> may be verified.	BA04
VSG Visual stress graded, refers to verified timber that is initially sorted visually in accordance with NZS 3603. See also MSG .	Simple House
W	
Wall refer External wall .	CD-E2
Wall area , in relation to a <i>building</i> , means the area (expressed in square metres) of internally-exposed <i>external walls</i> , including any door openings, of the <i>building</i> .	Code
Wall bracing element A section of wall that performs a <i>bracing</i> function.	Simple House
Wall underlay An absorbent synthetic wrap used as part of the wall <i>cladding system</i> to assist the control of moisture by ensuring moisture which may occasionally penetrate the wall <i>cladding</i> is directed back to the exterior of the <i>building</i> .	Simple House
The <i>wall underlay</i> shall have the properties in Table 23 of the <i>Acceptable Solution</i> E2/AS1 for Building Code Clause E2 External Moisture:	
(a) absorbency – no requirement	
(b) vapour resistance 7 MN s/g or less	
(c) water resistance of 20 mm or greater	
(d) pH of extract of between 6.0 and 9.0	
(e) shrinkage no more than 0.5%	
(f) mechanical edge tear and tensile strength to AS/NZS 4200.	
Wall underlay A building paper, synthetic material or rigid sheathing used as part of the <i>wall cladding system</i> to assist the control of moisture by ensuring moisture which occasionally penetrates the <i>wall cladding</i> is directed back to the exterior of the <i>building</i> .	CD-E2
Waste pipe A <i>discharge pipe</i> that conveys the discharge from <i>waste water fixtures</i> to a <i>gully trap</i> .	CD-G13
Waste water fixture A <i>sanitary fixture</i> or <i>sanitary appliance</i> used to receive wastes, and which is not a <i>soil fixture</i> .	CD-G13
Water heater A device for heating water.	CD-B2, CD-G12
Water main A water supply pipe that is under the control, or maintained by a <i>network utility operator</i> .	Code
Waterproof and waterproofing The complete and total resistance of a <i>building element</i> to the ingress of any moisture.	CD-E2
Water seal The depth of water that can be retained in a <i>water trap</i> .	CD-G2, CD-G13

Amend 11
Sep 2010Amend 12
Oct 2011Amend 11
Sep 2010Amend 12
Oct 2011

Definition

Source

Water supply system Pipes, fittings and tanks used or intended to be used for the storage and reticulation of water from a *water main* or other water source to *sanitary fixtures*, *sanitary appliances* and fittings within a *building*.

Code

Water tank (vessel) A covered fixed container for storing hot or cold water.

CD-G12

Water trap A fitting designed to retain a depth of water that prevents foul air and gases escaping from the *plumbing system* or *foul water drainage system* and entering a *building*.

CD-G2, CD-G13

Weathertightness and weathertight Terms used to describe the resistance of a *building* to the weather. *Weathertightness* is a state where water is prevented from entering and accumulating behind the *cladding* in amounts that can cause undue dampness or damage to the *building elements*.

CD-E2

COMMENT:

The term *weathertightness* is not necessarily the same as *waterproof*. However, a *weathertight building*, even under severe weather conditions, is expected to limit moisture ingress to inconsequential amounts, insufficient to cause undue dampness inside *buildings* and damage to *building elements*. Moisture that may occasionally enter is able to harmlessly escape or evaporate.

Weathertightness and weathertight Terms used to describe the resistance of a *building* to the weather.

Simple House

Wet area An area within a *building* supplied with water from a water supply system including bathrooms and showers, laundries, sanitary compartments and kitchen areas.

Simple House

Wetwall The exterior *cladding* on a wall with a *drained cavity*.

CD-E2

Wharenuī A communal meeting house having a large open floor area used for both assembly and sleeping in the traditional Maori manner.

CD-C, CD-H1

Wind zone Categorisation of wind force experienced on a particular site as determined in NZS 3604, Section 5.

CD-E2

COMMENT:

Maximum ultimate limit state speeds are:

Low *wind zone* = wind speed of 32 m/s

Medium *wind zone* = wind speed of 37 m/s

High *wind zone* = wind speed of 44 m/s

Very high *wind zone* = wind speed of 50 m/s

Extra high *wind zone* = wind speed of 55 m/s.

Specific design is required for wind speeds greater than 55 m/s.

Wire dog Galvanised or stainless steel wire, D or Z shaped nail, spiked at each end. Used for fixing timber together to resist uplift

Simple House

Working day means any day except—

BA04

(a) Saturday, Sunday, Good Friday, Easter Monday, Anzac Day, the Sovereign's Birthday, Labour Day, and Waitangi Day; and

(b) the day observed in the appropriate area as the anniversary of the province of which the area forms a part; and

(c) a day in the period beginning on 20 December in any year and ending with the close of 10 January in the following year.

Amend 11
Sep 2010

Amend 12
Oct 2011

Amend 11
Sep 2010

Index

(Revised by Amendment 6)

This is a complete index for the New Zealand Building Code and Compliance Documents.

A

Access

see **Access Routes**, and **Mechanical Installations for Access**

Access chambers

see Maintenance access to drains

Access points

see Maintenance access to drains

Access to a facility

food and work areas..... **G1/AS1** 3.2, Figure 10

lobbies..... **G1/AS1** 6.3.1

unisex facilities..... **G1/AS1** 1.1.5 c)

Access Routes..... **D1/AS1** 1.1.5, 1.2.2, 1.4.1, 1.5.1, 1.5.3 a),
1.5.4, 1.5.5, 1.6.1, 1.7.1, 1.8.1,
2.0, 5.1.3, Figure 27

see also Accessible routes, Activity space, Doors, Escape routes, Handrails, Height clearances, Level access routes, Mechanical Installations for Access, a Person with a disability, Ramps, Stairs, Obstructions, Vehicles, Wheelchairs

access to buildings..... **NZBC/D1.1**, **D1.3.1 (a) (b)**, **D1.3.3 (a) (b)**

access within buildings..... **NZBC/D1.1**, **D1.3.1 (c)**, **D1.3.3 (c)**, **D1.3.5**

corridors..... **NZBC/D1.3.1 (c)**, F6.3.1

level access routes..... **D1/AS1** 2.0

protection from falling..... **D1/AS1** 2.3

slip resistance..... **D1/AS1** 2.1, Table 2

width..... **D1/AS1** 2.2

location..... **D1/AS1** 1.1

principal entrance..... **D1/AS1** 1.1

service and maintenance personnel..... **D1/AS1** 11.0.3

Access to facilities..... **NZBC/D1.3.3 (c)**, G1.3.5; **G3/AS1** Figure 1

Accessible accommodation units..... **D1/AS1** 9.0, 9.1, 9.1.1, 9.2.1, Table 9

see also a Person with a disability

bedrooms..... **D1/AS1** 9.2.1 c)

dining areas..... **D1/AS1** 9.2.1 c)

facilities..... **D1/AS1** 9.2

kitchens..... **D1/AS1** 9.2.1 b) ; **G3/AS1** 1.5.2, Figure 1

laundry..... **G2/AS1** 1.2, Figure 2

sitting areas..... **D1/AS1** 9.2.1 c)

toilets and baths..... **D1/AS1** 9.2.1 a)

Accessible routes..... **NZBC/D1.3.3**, D1.3.4; **D1/AS1** 1.1.1 to 1.1.3, 1.5.5 b), 2.1.1,
2.2.1, 7.0.1, 7.0.6, 11.0.1, Figure 27

access to performance areas..... **D1/AS1** 8.2

Accessible units..... **D1/AS1** 1.1.3

Activity space..... **NZBC/D1.3.2 (a)**, **D1.3.4 (b)**, **G5.1 (b)**, **G5.2.1 (b)**, **G5.3.3**

Aged, homes for

see Old people's homes

Air

see also **Ventilation**

airflow control..... **NZBC/H1.3.1 (b)**; **H1/AS1** 3.0

changes..... **G4/VM1** 1.0.1

ducts..... **C/AS1** 6.9.5, 6.19.14, 6.20.20, 6.20.21

purity..... **G4/VM1** 2.0

Amend 11 Sep 2010	Air-handling systems	G4/AS1 1.5.1 b)
	Airborne and Impact Sound	G6
	impact insulation class (IIC)	NZBC/G6.3.2
	noise transmission between abutting occupancies	NZBC/G6.1, G6.2
	sound insulation tests	G6/VM1 2.0
	sound transmission class (STC).....	NZBC/G6.3.1; G6/VM1 1.0
Amend 11 Sep 2010	Alerting devices	F7/AS1 1.1.5, 1.2.8, 2.1.2, 2.2.2 b)
	audible	F7/AS1 1.2.5, 1.2.8, 2.1.2 c) f)
	visual	F7/AS1 2.1.2 c) f)
	Alerting the Fire Service	F7/AS1 1.2.2, 1.2.7, 2.1.2 a), 2.2
	Alternative solutions	
	accessible routes	D1/AS1 11.0
Amend 11 Sep 2010	bedding and backfilling drains.....	E1/AS1 3.9.8
	laundry tubs.....	G2/AS1 1.0.3
	open vented storage water heaters.....	G12/AS1 6.9.1
	solid waste storage	G15/AS1 3.1
	storage water heaters	
	seismic restraint.....	G12/AS1 6.11.4
	thermal resistance.....	E3/AS1 1.1.5 (Comment)
	unvented (valve vented) storage water heaters.....	G12/AS1 6.10.1, Figure 14
	watertightness testing.....	G12/AS1 7.5
	Ancillary Buildings	NZBC/A1 8.0, D1.2.1, D1.3.2 (h), D1.3.3, G1.3.5, G8.2, G12.3.0
	Apartments	
	see Housing , multi-unit dwellings	
	Appliances	
	see Sanitary appliances	
	Aprons	C/AS1 7.9.12, 7.9.13, Figure 7.2
	Artificial Light	G8; NZBC/H1.2 (c), H1.3.5; D1/AS1 1.5.4 (Comment), 1.8, 4.6;
	adequate lighting.....	NZBC/G8.2
	energy consumption	H1/AS1 6.0
	minimum illuminance	NZBC/G8.3; D1/AS1 4.6.1, Table 8, G8/AS1 1.0.1, Table 1
	wattage required.....	D1/AS1 4.6.1, Table 8; G8/AS1 1.0.1, Table 1
	Asbestos	
	see Hazardous Building Materials	
	Assembly care buildings	
	see Communal non-residential buildings	
	Assembly service buildings	
	see Communal non-residential buildings	
	Automatic extinguishers	G11/AS1 6.0

B

- Backflow prevention
see Protection of water supplies
- Balconies..... **C/AS1** 3.14.6 b), 3.14.7, 3.15.7, 7.8.7, Figures 3.18 and 3.22
- Banks..... **NZBC/D1.3.4 (c) (iv)**
see also Commercial buildings
- Amend 12 | Barges..... **E2/AS1** 4.6.1.5, 8.3.9, 9.6.8.2, 9.6.9.4, Figures 36, 92 and 97
Oct 2011 | see also Gutters, barges and fascias
- Barriers..... **NZBC/F4.3.1, F4.3.4, F4.3.5, F5.3.2, F5.3.4; D1/AS1** 1.7;
F4/AS1 1.0; **F5/AS1** 1.0
see also **Access Routes**, Handrails, **Safety from Falling**,
Timber barriers
- Amend 11 | accessible route **D1/AS1** 2.3.1
Sep 2010 |
- Amend 11 | construction **F4/AS1** 1.2, Figures 1–4
Sep 2010 | construction site..... **F4/AS1** 1.2.6
- fences..... **F5/AS1** 1.1, 1.1.2
around water hazards..... **F5/AS1** 1.2
for specific hazards..... **F5/AS1** 1.0.2
heights..... **F4/AS1** 1.1, Table 1
hoardings..... **F5/AS1** 1.1, 1.1.3, 1.1.5
viewing windows..... **F5/AS1** 1.1.4
parapet and rail barriers..... **F4/AS1** 1.2.3, Figure 5
safety enclosures for ladders..... **D1/AS1** 5.1.2, Figures 21 and 22
scaffolding..... **F4/AS1** 1.2.6
stair barriers..... **F4/AS1** Figure 4
toeboards..... **F5/AS1** 1.4
types of barriers..... **F5/AS1** 1.0.3
- Basements..... **C/AS1** 3.3.2 i), 3.7.1, 3.15.2, 4.5.15, 6.9.3, 6.14.4, Figure 3.19
- Amend 12 | see also Floors, basement floors
Oct 2011 |
- Basins..... **G1/AS1** 3.3, Figure 9, Table 1; **G13/AS1** 3.3.2, 5.5.2, Table 2
- Baths..... **G1/AS1** Table 2; **G13/AS1** Table 2
- Bedrooms
see Habitable spaces
- Bidets..... **G1/AS1** 2.4; **G13/AS1** 5.5.2, Table 2
- Boarding Houses
see Communal residential buildings
- Boundary
see Notional boundary, Relevant boundaries
- Bridges
see Ancillary buildings
- Building construction
non-solid construction **H1/VM1** 1.1.2, **H1/AS1** 2.1.3, 2.1.4
solid construction..... **H1/VM1** 1.1.2, **H1/AS1** 2.1.3, 2.1.4
thermal envelope **H1/VM1** 1.0, 1.1.2, **H1/AS1** 2.0, 2.1.3, 2.1.4
thermal resistance (R-value)..... **H1/VM1** 1.1.2, 1.1.3, 1.2.1, 1.4.1,
H1/AS1 2.1.3, 2.1.4, 2.2.1, 2.3.1, 2.3.2
- Amend 11 | Building elements..... **NZBC/B1.2, B1.3.1, B1.3.2, B1.3.3, B2.3, E2.3.2, E2.3.3,**
Sep 2010 |

- E2.3.4, E2.3.5, E2.3.6, E3.2, E3.3.5, F3.3 (f),
G3.3.2 (b) (c), G6.2, G9.3.1 (a) (e); B1/VM4 1.0.1;
C/AS1 5.1.1, 5.2.1, 5.6.1**
- see also Floors, Ceilings, Roofs
- elements in contact with the ground **NZBC/E2.3.3**
- primary elements **C/AS1 5.1.1, 5.3.1, 5.3.2 a), c), 5.6.1 a),
5.7.1, 5.7.4, 5.7.7, 5.7.8, 5.9, 6.14.3, 7.1.2 b),
7.8.10 b), 7.9.4, 7.9.5 a), 7.10.3, 7.10.4, C7.1.1**
- requiring noise control **G6/AS1 1.0.2, Figure 1**
- secondary elements **C/AS1 5.1.1, 5.3.1, 5.3.2 b), 5.6.1 a),
5.7.1, 5.7.8, 7.1.2 b), 7.10.3, C7.1.1**
- unrated primary **C/AS1 5.9.4, Figure 5.2**
- Building height **C/AS1 5.7.6 c), 7.11.3 a), 7.11.4**
- Amend 11 | Building performance index
Sep 2010 | see Energy efficiency provisions
- Building site **E1/VM1 3.2.2, 4.0.1, 4.1.10, E1/AS1 1.0.1**
evaluation **E1/VM1 1.0.3**
- Buildings
- air-supported structures **C/AS1 6.20.18**
- atriums **C/AS1 6.22**
- building elements **B1/VM4 2.0.3**
- building separation **NZBC/B1.3.3 (a)**
- car parking **C/AS1 6.8.4, 6.10.3 to 6.10.6, 7.8.2, 7.9.16, Figure 6.2**
- carports **C/AS1 7.8.10 (Comment)**
- commercial **H1/VM1 1.0, 1.0.2, H1/AS1 1.0.1, 1.0.3, 1.0.4, 6.1.1**
- communal non-residential **H1/VM1 1.0, H1/AS1 1.0.1, 1.0.4, 6.1.1**
- Amend 11 | communal residential **H1/VM1 1.0, H1/AS1 1.0.1**
Sep 2010 | dwellings
- attached and multi-unit **C/AS1 1.3.5, 1.3.6**
- Amend 11 | detached **C/AS1 1.3.3**
Sep 2010 | earth buildings **B1/VM1 8.0, B1/AS1 4.0, E2/AS2 1.0**
- Amend 11 | education **C/AS1 3.8.4, 6.20.7**
Sep 2010 | grandstands **C/AS1 3.16.7**
- hospitals **C/AS1 6.6.6**
- hotels, motels and accommodation **C/AS1 2.2.3**
- housing **H1/VM1 1.0, 1.1, H1/AS1 1.0, 2.0**
- detached dwellings **H1/VM1 1.1.3, 1.2.1**
- group dwellings **H1/VM1 1.1.3**
- multi-unit dwellings **H1/VM1 1.1.3, 1.2.1, H1/AS1 2.1.2**
- Amend 11 | wharehau **H1/VM1 1.1.3**
Sep 2010 | industrial **H1/VM1 1.0.1, 1.0.2, H1/AS1 1.0.2, 1.0.3**
- intended life
- see **Durability**
- intended use
- see **Intended use**
- Amend 11 | large buildings **H1/VM1 1.0.1, 1.3, H1/AS1 1.0.2, 2.2.1, 4.0.1**
Amend 12 | masonry buildings **B1/AS1 2.0, B1/AS3 1.1.1**
- Amend 11 | membrane structures **NZBC/C4.1.1; C/AS1 6.20.17 to 6.20.19, C3.1.1**
Sep 2010 | minimum floor level **E1/AS1 2.0, Figures 1 and 2**
- multi-storey buildings **C/AS1 2.2.5, 6.12.2**
- open air auditoriums **C/AS1 3.16.5**
- open sided buildings **C/AS1 7.8.8 to 7.8.10, Figure 7.10**
- Amend 11 | purpose group classification **C/AS1 2.2, Table 2.1**
Sep 2010 | reference buildings **H1/VM1 1.1.2, 1.1.3, H1/AS1 2.1.3, 2.1.4**
- remaining occupied during fire **C/AS1 5.6.9**
- residential community care **C/AS1 2.4**
- seasonal use buildings **F7/AS1 1.1.2 c)**
- single-floor buildings **F7/AS1 1.1.2 a) b)**

Index**NEW ZEALAND BUILDING CODE HANDBOOK***Buildings (continued)*

	siteworks	
	<i>see</i> Structure	
Amend 11 Sep 2010	small buildings.....	H1/VM1 1.0.1, 1.1.1, H1/AS1 1.0.2, 2.1, 4.0.1
	taverns.....	C/AS1 2.2.3
	theatres	C/AS1 6.3.1, 6.19.9, Figure 6.13
	three-floor buildings.....	F7/AS1 1.1.2 b)
Amend 12 Oct 2011	three storey buildings.....	G13/AS1 Figure 7
	timber framed buildings.....	B1/AS1 3.0, B1/AS3 1.1.1
Amend 11 Sep 2010	two-floor buildings.....	F7/AS1 1.1.2 a) b)
	wharehous.....	C/AS1 3.3.2 h), 3.4.2 e), 6.7.9, H1/VM1 1.1.3

C

- Call points..... **F7/AS1** 1.1.4
- Camping grounds..... **NZBC/G2.2**, G2.3.4; **G1/AS1** 3.4.2, Tables 1 to 3; **G2/AS1** Table 1
see also Communal residential buildings
- Amend 11 | Car park ventilation..... **G4/AS1** 1.5.4
 Sep 2010
- Car parking buildings
see Commercial buildings, Vehicles
- Carports
see Outbuildings
- Catchment
 characteristics..... **E1/VM1** 1.0.2 a), 2.0.1, 2.1, 2.3, 4.2.1
- Ceilings..... **NZBC/G6.3.1**; **G3/AS1** 2.1.2, 2.2.3
 floor/ceiling assemblies..... **G6/AS1** Figure 3
- Centres for people with disabilities
see Communal non-residential buildings
- Child care centres
see Early childhood centres and Communal non-residential Buildings
- Amend 11 | Children..... **NZBC/D1.3.3 (h)**, **F4.3.3**, **F4.3.4 (f)**, F4.3.5 (a), F5.2 (d),
 Sep 2010 F5.3.3, G15.3.2 (g); **D1/AS1** 4.1.8 a);
 Amend 12 F4/AS1 1.2.1, Figures 1-4; **F5/AS1** 1.0.2
 Oct 2011
- See also* Early childhood centres
- Chimneys..... **B1/AS1** 1.2, 8.0, **B1/AS3** 2.1; **C/AS1** 9.5, Figure 9.1, 9.2 and 9.3
 bracing units..... **B1/AS3** 1.9, 1.9.3, 1.9.6, Table 2
 brick chimneys..... **B1/AS3** 1.1.1, 1.1.3 a) b), 1.2.1 a), 1.6.2 a),
 1.7.1, 1.7.6, 1.8.1, 1.8.5 a), Figures 2 to 4 and 7, Table 1
 cantilever height..... **B1/AS3** 1.1.2
 chimney bases..... **B1/AS3** 1.1.3 a), 1.6.1, 1.9.4 b)
 chimney breasts..... **B1/AS3** 1.5, Table 1
 chimney depth..... **B1/AS3** 1.1.3
 chimney height..... **B1/AS3** 1.1.2
 chimney liners..... **B1/AS3** 1.1.4
 chimney lintels..... **B1/AS3** Table 1
 chimney materials..... **B1/AS3** 1.8
 chimney stacks..... **B1/AS3** 1.1.2, 1.6.1
 chimney wall thickness..... **B1/AS3** 1.2, 1.2.1
 chimney width..... **B1/AS3** 1.1.3
 concrete chimneys..... **B1/AS3** 1.1.1, 1.1.3 a) c), 1.2.1 b) c), 1.6.2 a) b),
 1.7.1, 1.7.13, 1.8.2, 1.8.5 b), Figures 4 and 5, Table 1
 concrete masonry..... **B1/AS3** 1.8.4
 floor brackets..... **B1/AS3** 1.7.1, 1.7.3 to 1.7.5, 1.9.4 b) c), Figure 6
 foundations..... **B1/AS3** 1.1.2, 1.1.3 a), 1.3, 1.3.1,
 1.3.2, 1.3.3, 1.7.4, 1.7.5, 1.8.4, Figure 1
 foundation slabs..... **B1/AS3** 1.1.2, 1.3.2, 1.7.4, 1.7.5
 gathers..... **B1/AS3** 1.6.1, 1.6.2, 1.7.5
 hearths..... **B1/AS3** 1.4, 2.2, 2.2.1, 2.2.2, 2.2.3
 hearth slabs..... **B1/AS3** 2.2, 2.2.1, 2.2.2, 2.2.3
 packers..... **B1/AS3** 1.7.2, 1.7.6 c)
 precast pumice concrete chimneys..... **B1/AS3** 1.1.1 b), 1.1.3 a) c),
 1.2.1 c), 1.6.2 b), 1.7.1, 1.7.13, 1.8.3,
 1.8.5 c), Figures 5 and 7, Table 1
 compressive strength..... **B1/AS3** 1.8.3 c)
 construction of..... **B1/AS3** 1.8.3
 restraint..... **B1/AS3** 1.7, 1.7.1, 1.7.13, Figures 6 and 7
 roof brackets..... **B1/AS3** 1.7.1, 1.7.3, 1.7.4, Figure 6
 roof ties..... **B1/AS3** 1.7.5
 structural diaphragms..... **B1/AS3** 1.9.5
 wall ties..... **B1/AS3** 1.7.5, 1.7.7, 1.7.8
 closely spaced wall ties..... **B1/AS3** 1.7.5, 1.9.4 c)
- Amend 11 |
 Sep 2010

Index**NEW ZEALAND BUILDING CODE HANDBOOK**

- Churches
see Communal non-residential buildings
- Cinemas **NZBC/G5.3.5**
see also Communal non-residential buildings
- Cladding finish colours **E2/AS1 2.4**
- Classified uses **NZBC/A1**
- Cleaners' sinks **G13/AS1 Table 2**
- Clubrooms
see Communal non-residential buildings
- Cold water expansion valves (explosion control valves) **G12/AS1 6.3.3 a), 6.6.2, 6.6.3,**
Figures 8 to 10, Table 6
installation **G12/AS1 6.6.5**
relief valve drains **G12/AS1 6.7, Figures 8 to 10 and 13**
- Colleges
see Communal non-residential buildings
- Commercial buildings **NZBC/A1 5.0, E3.3.1, G3.2.1, G3.3.1 (a) (b), G3.3.2 (b), G3.3.6,**
G5.2.1 (c), G5.3.4, G8.2, G9.3.4, H1.2 (c);
G3/AS1 2.0.1; H1/AS1 1.0
- Communal non-residential buildings **NZBC/A1 4.0, E1.3.2, E3.3.1,**
G5.2.1 (c), G5.3.4, G5.3.5, G8.2,
G9.3.4, H1.2 (c); **H1/AS1 1.0.3, 1.0.4**
assembly care **NZBC/A1 4.0.3**
assembly service **NZBC/A1 4.0.2, H1.2 (a)**
halls **NZBC/G5.3.5**
places of assembly **D1/AS1 8.0**
- Communal residential buildings **NZBC/A1 3.0, G5.2.1 (c), G5.3.4, G8.2, G9.3.4;**
D1/AS1 9.0, 9.1.1; H1/AS1 1.0.1
community care **NZBC/A1 4.0.2**
community service **NZBC/A1 3.0.2**
- Communes
see Housing, group dwellings
- Community care buildings
see Communal residential buildings
- Community service buildings **D1/AS1 1.1.3**
see also Communal residential buildings
- Computer centres
see Commercial buildings
- Concealed spaces **C/AS1 6.18.1, 6.18.10**
cavity barriers **C/AS1 6.18.1, 6.18.4 to 6.18.6**
ceiling space firecells **C/AS1 6.12.8**
ceiling space restrictions **C/AS1 6.18.7 to 6.18.10**
in walls and floors **C/AS1 6.18.4**
within firecells **C/AS1 6.18.2, 6.18.3, Figure 6.10**
see also **External Moisture, Internal Moisture**
- Concealed works **B1/VM4 A1.2.1 b)**
- Concrete **B2/AS1 3.1**
see also Design, concrete
- Condensation
see **Internal Moisture**

Amend 11
Sep 2010

	Construction moisture	E2/AS1 10.0
	maximum acceptable moisture contents	E2/AS1 10.2
	measuring moisture content	E2/AS1 10.3
	concrete floors	E2/AS1 10.3.2
	timber	E2/AS1 10.3.1
Amend 12 Oct 2011	moisture in materials	E2/AS1 10.1
	Construction site barriers	F4/AS1 1.2.6
	Construction and Demolition Hazards	F5
	areas accessible to the public	NZBC/F5.3.2
	barriers	NZBC/F5.3.2, F5.3.4
	demolition sites	F5/AS1 1.0
	entry of children	NZBC/F5.2 (d), F5.3.3; F5/AS1 1.0.2
	falling objects	NZBC/F5.2 (a) (b), F5.3.1
	lifting equipment	NZBC/F5.3.4
Amend 11 Sep 2010	Contaminants	G14/VM1 1.6, Table 1
	<i>see also</i> Hazardous agents on site , contaminants	
Amend 11 Sep 2010	Control panel	F7/AS1 1.1.5, 1.2.2, 2.2.2 b)
	Corridors	C/AS1 6.13.1, Figure 6.5
	<i>see also</i> Access Routes	
	Corrosives	
	<i>see</i> Hazardous Substances and Processes , Class 8	
	Creep	
	<i>see</i> Structure , loads	
	Cross connections	
	<i>see</i> Protection of water supplies	
	Cyclic loads	
	<i>see</i> Structure , loads	

D

Dampness

see **External Moisture, Internal Moisture**

Dams

see Ancillary buildings

Dangerous goods

see also **Hazardous Building Materials, Hazardous Substances and Processes**

Day care institution

see Early childhood centres, Communal non-residential buildings

Dead ends

see Escape routes

Amend 12 Oct 2011	Decks and pergolas.....	E2/AS1 7.0
	<i>see also</i> Membrane roofs and decks	
	<i>see also</i> Enclosed Balustrades	
	attachment to building structure	E2/AS1 7.2
	pergolas.....	E2/AS1 7.2.2 , Figure 15
	slatted timber decks to walls	E2/AS1 7.2.1 , Figure 15
	cantilevered decks.....	E2/AS1 7.2.1.1 , Figure 16
	level thresholds	E2/AS1 7.3 , Figures 17A and 17B
	enclosed decks.....	E2/AS1 7.3.1
Amend 12 Oct 2011	removable surfaces.....	E2/AS1 7.3.1.1 , Figure 16
	timber removable surface.....	E2/AS1 7.3.1.2
	ground floor level access	E2/AS1 7.3.2 , Figure 17B
	concrete slab.....	E2/AS1 Paragraph 7.3.2.1, Figure 17B
	timber floor.....	E2/AS1 Paragraph 7.3.2.2, Figure 17B
Amend 12 Oct 2011	thresholds for decks.....	E2/AS1 7.1 , Figure 14
Amend 12 Oct 2011	enclosed decks.....	E2/AS1 7.1.2
	slatted decks	E2/AS1 7.1.1 , Figure 14
	Deflections	
	<i>see</i> Structure	
	Demolition	
	<i>see</i> Construction and Demolition Hazards	
	Dental surgeries.....	NZBC/D1.3.4 (c) (iv)
	<i>see also</i> Commercial buildings	
Amend 11 Sep 2010	Design	
	aluminium.....	B1/VM1 7.0 , B1/AS1 4.0
Amend 11 Sep 2010	concrete.....	B1/VM1 3.0
	concrete masonry	B1/VM1 4.0 , B1/AS3 1.3.3
	drains	
	<i>see</i> Drains	
Amends 11 and 12	earth building.....	B1/VM1 8.0 , B1/AS1 4.0
	foundations	
	<i>see</i> Foundations	
Amend 12 Oct 2011	loadings	B1/VM1 2.0
	earthquake.....	B1/VM1 1.0 , 2.0 , B1/AS1 1.4 , B1/AS3 1.9 , Table 2
	limit state	B1/VM1 2.0 , 7.1
Amend 11 Sep 2010	siteworks.....	B1/VM1 10.0
	steel.....	B1/VM1 5.0
Amend 11 Sep 2010	strength reduction factor	B1/VM4 2.0.1 , 3.5.1 , 4.7 , Tables 1 and 4
	structural design action standards	B1/VM1 2.0
Amend 12 Oct 2011	timber	B1/VM1 6.0 , B1/AS1 3.0
	windows	
	<i>see</i> Windows	

- Design loads
see **Structure**, loads
- Detached dwellings
see Housing
- Differential movement
see **Structure**, loads
- Disabled persons
see a Person with a disability
- Discharge pipes **G3/AS1** 1.1.5; **G13/AS1** 4.5.1, 4.5.2, 4.6, 5.1.1, 5.5, 5.7.3,
Figures 6 and 11, Table 4
branch discharge pipes **G13/AS1** Figure 7
diameters **G13/AS1** 3.3.2, 4.3, 5.3, Table 6, **G13/AS2** 3.6, 4.2
fixture discharge pipes **G13/AS1** Figures 7 and 8, Tables 2 and 4
gradient **G13/AS1** 4.4, 5.4, **G13/AS2** 3.5, Table 2
waste pipes
combined waste pipes **G13/AS1** Figure 5
developed lengths **G13/AS1** Figures 5, 6 and 8
- Discharge stacks **G13/AS1** 4.2.2 a), 4.5.1 b), 4.7,
5.3.1, 5.6, Figures 7 to 9, Tables 3, 4 and 6
see also Discharge pipes, Pipes
discharge stack vents **G13/AS1** 4.7.1 b), 5.2.1 b), 5.3.1, 5.6.1, 5.6.3 b),
Figures 7 and 8, Table 6, **G13/AS2** 4.1.5, Figure 5
- Discharge units **G13/AS1** Table 2, **G13/AS2** Table 2
- Dishwashing machine **G13/AS1** 3.3.2 a) e), Table 2
- Domestic buildings
see Housing
- Doors
see also Windows and doors
**NZBC/D1.3.4 (f), D1.3.1 (c), D1.3.3 (n), D1.3.4 (f), D2.3.5 (c),
F5.3.2 (d); C/AS1** 3.9.1, 3.11.6, 6.19.4; **D1/AS1** 7.0,
Figure 27;
acceptable obstructions **C/AS1** 3.3.6
accessible doors **D1/AS1** 7.0.3 to 7.0.5
accessible escape routes **C/AS1** 3.3.7
automatic sliding doors **C/AS1** 3.17.7
closers and latching **C/AS1** 3.17.1
degree and width of opening **C/AS1** 3.17.4, 3.17.5
delayed action unlocking devices **C/AS1** 3.17.11
direction of opening **C/AS1** 3.17.3, 3.17.4
door swings **C/AS1** 3.4.5 b), 3.13.2, 3.17.5 d) e)
fire doors **C/AS1** 3.3.1 b), 3.6.1 c), 3.11.9, 3.17.9, 3.17.13, 6.19.2 a),
C7.1, Figures 3.29 to 3.31, Table 6.1;
frameless glass doors **D1/AS1** 7.0.7
glazing **C/AS1** 5.8.10, 5.8.11; **D1/AS1** 7.0.4, Figure 28
handles **D1/AS1** 7.0.5
hold-open devices **C/AS1** 3.17.1 b), 3.17.9, **F7/AS1** 1.3.6, 1.5.2
lift landing doors **C/AS1** 6.16.5 b), 6.19.13, Table 6.1
lobby doors **D1/AS1** 7.0.1
locking devices **C/AS1** 3.17.2, 3.18.6
markings **C/AS1** 6.19.6, 6.19.7
panic bolts **C/AS1** 3.17.14
revolving doors, automatic doors and
access control systems **C/AS1** 3.17.7, 3.17.8,
Figure 3.26; **D1/AS1** 7.0.6, Figure 29
signs **C/AS1** 3.20.1
smoke control doors **C/AS1** 3.17.9, 3.17.12, 6.9.11, 6.19.2 b), C7.1,
Figures 3.27, 3.28 and 6.1, Table 6.1

Amend 11
Sep 2010

Amend 11
Sep 2010

Doors (continued)

- subdividing escape routes **C/AS1** 3.17
- turnstiles **D1/AS1** 7.0.6
- visibility **D1/AS1** 7.0.4
- vision panels **C/AS1** 3.17.6, 5.8.10
- width **D1/AS1** 7.0.3
- Downlights **C/AS1** 9.4
- Downpipes **E1/AS1** 3.4.2 a) b), 3.7.8, 4.0, 5.1.1
 - installation **E1/AS1** 4.3
 - materials **E1/AS1** 4.1, Table 4
 - sizing **E1/AS1** 4.2, Table 5
- Drainage system **G13/AS1** 5.1.2, 5.5.2, 5.7.3, 5.7.4 b), **G13/AS2** 1.0.2, 3.1.1, 3.3.2, 4.1.1, 5.10.1
- Drains **NZBC/G13.2, G13.3.1 (a), G13.3.2, G13.3.3, G15.3.3; B1/VM1** 11.0, **B1/AS1** 6.0; **G13/AS1** 4.2.2 d), **G13/AS2** 1.0
 - access points **E1/AS1** 3.7, 3.7.3, 3.7.7, 3.7.8
 - access chambers **E1/VM1** 5.0.1, **E1/AS1** 3.7.1, 3.7.2 b), 3.7.4, 3.7.5, Figure 12
 - inspection chambers **E1/AS1** 3.7.1, 3.7.2 b), 3.7.4, 3.7.5, Figure 11
 - inspection points **E1/AS1** 3.7.1, 3.7.2 b)
 - rodding points **E1/AS1** 3.7.1, 3.7.2 a), Figure 10
 - alignment **E1/AS1** 3.3, 3.7.3 a), Figures 4 and 5
 - see also* Drain, layout
 - bedding and backfilling **E1/AS1** 3.9, 3.9.2, Figure 13; **G13/AS2** Figure 7
 - alternative solutions **E1/AS1** 3.9.8
 - materials **E1/AS1** 3.9.5; **G13/AS2** Table 1
 - placing and compacting **E1/AS1** 3.9.6; **G13/AS2** 5.5
 - proximity to buildings **E1/AS1** 3.9.7, Figure 14;
 - trench slope **E1/AS1** 3.9.3
 - trench width **E1/AS1** 3.9.4
 - bends **G13/AS2** 3.1
 - bubble-up chamber system **E1/AS1** 3.4.2, Figures 6 and 7
 - connections **G13/AS2** 3.2.1, Figure 1
 - construction **G13/AS2** 5.2, Figure 7
 - diameter
 - see* Drains, sizing
 - disused drains **G13/AS2** 5.10
 - downstream water systems **E1/VM1** 4.3
 - drain vent pipes **G13/AS2** Figure 3, Table 3
 - drains under buildings **E1/AS1** 3.7.6 to 3.7.8
 - gradient **E1/AS1** 3.3.1, 3.7.3 b); **G13/AS1** Table 5, **G13/AS2** 3.5, Table 2
 - minimum gradient **E1/AS1** 3.4, Table 2
 - installation **G13/AS2** 5.0, 5.5
 - joints **E1/AS1** 3.5, Table 3; **G13/AS2** 5.1
 - junctions **G13/AS2** 3.2
 - layout **E1/AS1** 3.3.1, 3.7.3 a), Figures 4 and 5
 - leakage tests **E1/VM1** 8.0, **E1/AS1** 3.8
 - high pressure air test **E1/VM1** 8.3
 - low pressure air test **E1/VM1** 8.2
 - water test **E1/VM1** 8.1
 - maintenance access
 - see* Maintenance access to drains
 - materials **E1/AS1** 3.1, Table 1; **G13/AS2** 2.0, Table 1
 - open water, upstream of site **E1/VM1** 4.2
 - pipe water, upstream of site **E1/VM1** 4.1
 - quantity **E1/VM1** 4.1.10
 - tailwater depth **E1/VM1** 4.1.6, 4.1.7
 - proximity to buildings **G13/AS2** 5.6, Figure 8
 - secondary flow **E1/VM1** 4.0, 4.1.11 **E1/AS1** 1.0.1 d)
 - downstream drainage **E1/VM1** 4.3
 - headwater depth **E1/VM1** 4.1.4, 4.1.5, 4.1.8, 4.1.9, Figures 5 to 7, 10 and 11

Drains (continued)

- site – outfall protection **E1/VM1 7.0**
- sizing **E1/VM1 3.0, E1/AS1 3.2, Figure 3; G13/AS2 3.6, Table 2**
- energy losses **E1/VM1 5.0**
- hydraulic design of drains **E1/VM1 1.0.4, 3.2, Figures 6 and 7**
- air entrainment **E1/VM1 3.2.4**
- headwater depth **E1/VM1 3.2.2, Figure 5 a)**
- minimum size **E1/VM1 3.1**
- minimum velocity **E1/VM1 6.0**
- pipe size decrease **E1/VM1 5.0.2**
- soak pits **E1/VM1 9.0, Figure 13**
- sumps **E1/AS1 3.6.1, 3.6.2, Figures 8 and 9**
- surface water inlets **E1/AS1 3.6**
- under buildings **E1/AS1 3.7.6; G13/AS2 5.8, 5.9, Figure 13**
- upstream water systems **E1/VM1 4.1, 4.2**
- ventilation **G13/AS2 4.0, Figures 4 to 6, Table 3**
- watertightness **G13/AS2 6.1.1**
- Draught diverters **G4/AS1 2.3.2**
- Drinking fountains **G13/AS1 Table 2**
- Durability** **B2; B2/VM1 1.0, B2/AS1 1.2, Figure 1**
- code compliance certificate **NZBC/B2.3**
- ease of access and replacement **B2/AS1 1.2.1**
- evaluation **B2/VM1 1.0, B2/AS1 1.2, Figure 1**
- examples of requirement **B2/AS1 1.3.1, Table 1**
- generic materials **B2/AS1 3.0**
- in service history **B2/VM1 1.1**
- laboratory testing **B2/VM1 1.2**
- similar materials **B2/VM1 1.3**
- intended life **NZBC/B1.3.1, B2.1, B2.3**
- 5 year durability **B2/AS1 Table 1**
- 15 year durability **B2/AS1 Table 1**
- 50 year durability **B2/AS1 Table 1**
- maintenance **B2/AS1 2.0**
- normal **B2/AS1 2.1**
- scheduled **B2/AS1 2.2**
- specified intended life **NZBC/B2.3**
- timber **B2/AS1 3.2**
- Dynamic loads
see **Structure**, loads

E

- Early childhood centres..... **NZBC/G2.2, G3.2.1, G3.3.1 (a) to (d), G5.2.1 (a), G5.3.1, G5.3.2, G7.2, G12.3.4; G2/AS1 Table 1; G3/AS1 1.0.1; G5/AS1 1.0.3**
- see also* Communal non-residential buildings
- Amend 11
Sep 2010 | Earth buildings **B2/AS1 3.4, E2/AS2 1.0**
- Earth pressure
see **Structure**, loads
- Earth retaining structures **B1/VM4 2.0.3**
- Earthquakes
see **Structure**, loads
- Amend 11
Sep 2010 | Ease of access and replacement **B2/AS1 1.2.1**
- Effluents **B1/VM4 A1.2.1 f)**
- Amend 12
Oct 2011 | EIFS **E2/AS1 9.9**
- battens **E2/AS1 9.9.5**
- coating **E2/AS1 9.9.6**
- decorative mouldings **E2/AS1 9.9.6.4**
- finish coats **E2/AS1 9.9.6.3**
- reinforcing **E2/AS1 9.9.6.1**
- reinforcing base coat **E2/AS1 9.9.6.2**
- EIFS/floor slab junction **E2/AS1 9.9.7, Figure 125**
- general **E2/AS1 9.9.2**
- installation **E2/AS1 9.9.4, Table 23**
- Amend 12
Oct 2011 | fixing blocks **E2/AS1 9.9.4.4**
- fixings **E2/AS1 9.9.4.1, Table 24**
- joints **E2/AS1 9.9.4.2**
- movement control joints **E2/AS1 9.9.4.3, Figure 124**
- Amend 12
Oct 2011 | limitations **E2/AS1 9.9.1**
- materials **E2/AS1 9.9.3**
- fibreglass reinforcing mesh **E2/AS1 9.9.3.2**
- polystyrene sheet **E2/AS1 9.9.3.1**
- parapets and enclosed balustrades **E2/AS1 9.9.10**
- EIFS topped enclosed balustrades **E2/AS1 9.9.10.2, Figure 129**
- flush-finished balustrade top **E2/AS1 9.9.10.1, Figures 129 and 130**
- metal cappings **E2/AS1 9.9.10.2, Figures 12, 13 and 130**
- Amend 12
Oct 2011 | pipes and service penetrations **E2/AS1 9.9.8, Figure 126**
- Amend 12
Oct 2011 | windows and doors **E2/AS1 9.9.9, Figures 17c, 127 and 128**
- Electrical codes of practice **G9/VM1 1.0.1, G9/AS1 1.0.1**
- Electricity** **G9**
- electrical installations **NZBC/G9.1, G9.2, G9.3.1 to G9.3.3; G9/VM1 1.0**
- domestic cooking and refrigeration **G3/AS1 1.4.1**
- laundries **G2/AS1 1.1.2**
- electromechanical stress **NZBC/G9.3.1 (d)**
- essential services **NZBC/G9.3.2**
- external supply system **NZBC/G9.3.3**
- a person with a disability **NZBC/G9.3.4**
- light switches **G9/AS1 2.0.1 a) b)**
- socket outlets **G9/AS1 2.0.1 c)**
- temperature **NZBC/G9.3.1 (c) (d)**
- Emergency lighting
see **Lighting for Emergency**

- Amend 12
Oct 2011
- Enclosed balustrades **E2/AS1** 7.4, 9.3.9, 9.4.8, 9.5.5, 9.6.9.8,
9.7.7, 9.8.7, 9.9.10, Figures 101 and 102, Table 3
- Amend 12
Oct 2011
- balustrade-to-deck floor junction **E2/AS1** 7.4.3, Figures 18 and 62
- balustrade-to-wall junctions **E2/AS1** 7.4.2, Figures 11-12
- deck drainage **E2/AS1** 7.4.1
- Amend 12
Oct 2011
- EIFS-topped **E2/AS1** 9.9.10, Figure 129
- flush-finished topped balustrades **E2/AS1** 9.7.7.1, Figure 117
- metal cappings **E2/AS1** 7.4.4, Table 7, Figure 5
- Amend 12
Oct 2011
- stanchions **E2/AS1** 7.4.5, Figure 19
- Amend 12
Oct 2011
- Enclosing rectangles **C/AS1** 7.3.6, 7.5, 7.6
- building on sloping sites and
- buildings of irregular height **C/AS1** 7.5.9, 7.5.10, Figure 7.7
- exceptions for SH, SR and SA buildings **C/AS1** 7.5.7, 7.5.8, Figure 7.7
- Method 2 **C/AS1** 7.3.4 a), 7.3.6 to 7.3.8,
7.3.12, 7.5, Figures 7.5 to 7.7, Table 7.2
- Method 3 **C/AS1** 7.3.4 b), 7.3.8, 7.3.12, 7.6, Figure 7.8
- Method 4 **C/AS1** 7.3.4 c), 7.3.9, 7.7, Figure 7.9, Tables 7.3 and 7.4
- Energy cut-offs **G12/AS1** 6.4.1 c), 6.5.2
- Energy Efficiency** **H1; E3/AS1** 1.1.5;
- building performance index (BPI) **NZBC/H1.3.2; H1/VM1** 1.2
- heat gain **NZBC/H1.3.3 (d) (f); H1/AS1** 4.0
- heat loss **NZBC/H1.3.4**
- heating **NZBC/H1.3.2**
- indoor temperature and humidity **NZBC/H1.2 (a), H1.3.1**
- Energy efficiency provisions
- airflow control **H1/AS1** 3.0
- artificial lighting **H1/VM1** 1.3.1, **H1/AS1** 1.0.4, 6.1.1
- building performance index **H1/VM1** 1.2, 1.2.1
- hot water systems **H1/AS1** 5.0.1
- Amend 11
Sep 2010
- internal moisture **H1/VM1** 1.2.1, **H1/AS1** 2.1.4
- solar heat gain **H1/AS1** 4.0
- Entrances
- principal **D1/AS1** 1.1.1
- Environment
- see **Interior Environment**
- Escalators
- see **Mechanical Installations for Access**
- Escape height **C/AS1** 2.2.9 a), 3.3.4, 3.15.3 a), 3.15.6, 3.15.7 a),
3.18.1, 4.5.10 b), 5.3.3 c), 7.10.3 Comment
7.9.10, Figure 3.20, Table 4.1
- Escape routes **NZBC/F6.2, F6.3.2, F8.2 (a), F8.3.3 (a); C/AS1** 3.1 to 3.4, 3.6.1,
3.7.1, 3.9.12 to 3.9.14, 3.11.4, 3.17.3, 3.17.5, 4.5.7,
Figures 3.1 to 3.5, Tables 3.1 and 3.2;
D1/AS1 1.1.5; **F8/AS1** 3.0
- see also **Means of Escape**
- accessible **C/AS1** 3.3.7, 3.17.5 a)
- doors subdividing escape routes **C/AS1** 3.17
- exitways **C/AS1** 3.3.2 a), 3.11, 3.12, 6.9.1, 6.16.7, A2.1.1 Type 16,
Figures 3.3 and 3.20, Tables 2.1, 6.1 to 6.3
- external exitways **C/AS1** 3.16.4, 5.6.3 c), 7.9.1, 7.9.3
- lighting **C/AS1** 3.19.1
- lighting for emergency
- see Fire safety precautions
- pressurisation
- see Fire safety precautions

Escape routes; exitways (continued)

- split level exitways **C/AS1** 3.15.8, Figure 3.24
- ventilation of enclosed exitways **C/AS1** 6.9.6 to 6.9.10
- external **C/AS1** 3.14
- handrails **C/AS1** 3.3.3, 3.3.6 b), 3.9.8, 6.20.4 c)
- height and width of escape routes **C/AS1** 3.3
- height **C/AS1** 3.3.1
- width **C/AS1** 3.3.2 to 3.3.5, 3.9.4 to 3.9.6, 3.9.12 e), 3.17.5, Figures 3.3, 3.4 and 3.6, Tables 3.2 and 3.4
- length of escape routes **C/AS1** 3.4, 3.5, 3.11.7, 6.13.1, Figures 3.7, 3.9 and 3.10, Table 3.3
- measurement of travel distance **F6/AS1** Appendix D
- number of escape routes **C/AS1** 3.2, Figure 3.2, Table 3.1
- obstructions **C/AS1** 3.3.6, 3.4.2 c), 3.17.5 a) e), 3.18.3
- access control systems **C/AS1** 3.17.7
- chains **C/AS1** 3.3.6
- crowd control barriers **C/AS1** 3.3.6
- sliding bars **C/AS1** 3.3.6
- turnstiles **C/AS1** 3.3.6
- open paths **C/AS1** 2.2.8, 3.1.2, 3.1.3, 3.1.5, 3.3.2 f), 3.3.7, 3.4.1, 3.4.2, 3.8, 3.9, 3.17.3 a), 3.17.5 a), A2.1.1 Type 16, Figures 3.1, 3.7, 3.9, 3.12 and 3.16, Table 3.3
- dead end open paths **C/AS1** 1.3.4 Step 2, 3.3.2 b), 3.4.2, 3.5.1, 3.10, 3.14.4, Table 3.3
- increases in open path lengths **C/AS1** 3.5
- intermediate floors **C/AS1** 3.3.2 f), 3.4.1 a), 3.4.6, 3.9.13, Figure 3.9
- length **C/AS1** 1.3.4 Step 2, 2.2.8, 3.1.3, 3.4.1, 3.4.2, 3.4.4, 3.4.6 to 3.4.8, 3.5, 3.15.1, Figures 3.7 and 3.9, Table 3.3
- number of open paths **C/AS1** 3.8.1
- ramps **C/AS1** 3.1.4, 3.9.2, 3.14.7
- separation of open paths **C/AS1** 3.8.3, Figure 3.12
- size of open paths **C/AS1** 3.8.1
- sloping floors and ceilings **C/AS1** 3.4.8 a)
- special cases **C/AS1** 3.9
- aisles **C/AS1** 3.9.4 to 3.9.9, Figure 3.15
- exception for education buildings **C/AS1** 3.8.4
- fixed seating **C/AS1** 3.9.3, Figures 3.13 to 3.15, Table 3.4
- ladders **C/AS1** 3.10.2
- long corridors **C/AS1** 6.13, Figure 6.5
- loose seating **C/AS1** 3.9.10, 3.9.11
- separate tenancies **C/AS1** 3.9.1
- subdivision **C/AS1** 6.13.1 a)
- unenclosed stairs **C/AS1** 3.9.14
- protected paths **C/AS1** 3.1.2, 3.7.1 a), 3.9.12, 3.9.13, 3.11.1, 3.11.2, 3.15.3 b), 3.16.3, 6.9.1, 6.9.6 a), 6.10.4 a), 6.11.3 b), Figures 3.1, 3.7, 3.8, 3.11, 3.19, 3.28 and 3.30, Tables 2.1 and 6.1
- floor area **C/AS1** 3.4.3, 3.4.5
- length **C/AS1** 3.1.3, 3.4.1, 3.4.4, 6.13.1 a), Table 3.3
- subdivision **C/AS1** 6.13.1 a)
- safe paths **C/AS1** 3.1.2, 3.4.1 b), 3.7.1, 3.9.14, 3.11.4 to 3.11.6, 3.11.9, 3.14.1, 3.15.3 b), 3.15.6, 3.15.8 a), 3.16.1, 3.16.6, 3.16.8, 3.16.9, 6.9.2 to 6.9.4, 6.10.4 a), 6.22.2 d), 7.2.1 b), 7.7.1, A2.1.1 Type 13 Type 19, Figures 3.1, 3.8, 3.16, 3.19, 3.21, 3.22, 3.24, 3.29 to 3.31 and 5.1, Tables 2.1, 6.1 and 7.4
- glazing **C/AS1** 5.8, Figure 5.1
- horizontal safe paths **C/AS1** 3.11.6 a), 3.11.7, 3.11.8, 3.17.9 b), 3.17.13 e), 6.9.8
- length restrictions **C/AS1** 3.11.7, 3.15.5 c)
- permitted activities **C/AS1** 3.12.2
- subdivision **C/AS1** 6.13.1 a)
- vertical safe paths **C/AS1** 3.11.6 b), 3.11.7, 3.12.3, 3.13, 3.16.3, 3.17.9 b), 3.17.12 a), 3.17.13 e), 6.9.7, 6.9.11, A2.1.1 Type 14, Figure 6.1

Escape routes (continued)

signs	C/AS1 3.20
single escape routes	C/AS1 3.15
active purpose groups	C/AS1 3.15.3, 3.15.4
basements	C/AS1 3.15.2, Figure 3.19
bridges	C/AS1 3.15.7, Figure 3.23
external balconies	C/AS1 3.15.7, Figure 3.22
external stairways	C/AS1 3.15.7
intermediate floors	C/AS1 6.22.2 c)
internal stairs	C/AS1 3.15.6, Figure 3.21
sleeping purpose groups	C/AS1 3.15.5, Figure 3.21
split level exitways	C/AS1 3.15.8, Figure 3.24
stairs	C/AS1 3.15.6, 3.15.7, Figures 3.21 to 3.23
surface finishes	C/AS1 3.3.2 h), 3.4.2 e), Table 6.2

Equipotential bonding	G12/AS1 9.0
earth bonding conductors	G12/AS1 9.3
installation of conductors	G12/AS1 9.2
metallic sanitary fixtures	G12/AS1 9.2.2, Figure 20
metallic water supply pipes	G12/AS1 9.2.1, Figure 19

Escape through adjacent firecell	C/AS1 3.9.12, Figure 3.16
--	----------------------------------

Escape through adjoining building	C/AS1 3.6, Figure 3.11
---	-------------------------------

Evacuation time	NZBC/F6.3.1
-----------------------	--------------------

Amend 11
Sep 2010

Exitways	F7/AS1 1.2.5, 1.2.6, 1.3.5 c), 1.5.2, F8/AS1 3.1.1, 3.2.3
pressurisation	F7/AS1 1.3.7

Explosion

see **Structure**, loads, and **Hazardous Substances and Processes**

Explosives

see also **Hazardous Substances and Processes**, Class 1 Explosives

External Moisture	E2
--------------------------------	-----------

Amend 12
Oct 2011

concealed spaces	NZBC/E2.3.5
concrete and concrete masonry buildings	E2/AS3 1.0
elements in contact with the ground	NZBC/E2.3.3
external walls	NZBC/E2.3.2
moisture present at completion of construction	NZBC/E2.3.6
qualifications	E2/AS1 1.5, 8.2.2, 8.3.2, 8.4.2, 8.5.2, 9.2.3, 9.3.4.1, 9.4.3, 9.5.3, 9.6.2, 9.7.2.1, 9.8.3, 9.9.2

Amend 12
Oct 2011

roofs	NZBC/E2.3.1, E2.3.2
scope	E2/VM1 1.2, E2/AS1 1.0
construction excluded	E2/AS1 1.2
acoustics	E2/AS1 1.2.3
commercial and industrial roofing	E2/VM1 3.0
outbuildings	E2/AS1 1.2.1
skillion roofs	E2/VM1 3.0
spread of flame	E2/AS1 1.2.2
attached garages	E2/AS1 1.1
construction included	E2/AS1 1.1
provisions for snow	E2/AS1 1.3
qualifications	E2/AS1 1.5
specific design	E2/AS1 1.4
windows and doors	E2/AS1 9.1.10.1
snow	NZBC/E2.3.1
suspended floors	NZBC/E2.3.4

Amend 12
Oct 2011

External Moisture (continued)

	Verification Method.....	E2/VM1 1.0, 2.0, 3.0, Appendix 1
	commercial and industrial roofing.....	E2/VM1 3.0
	general.....	E2/VM1 1.1
Amend 12 Oct 2011	pitched roofing systems.....	E2/VM1 2.0
	pro-forma for test details.....	E2/VM1 1.6, Appendix 1
	scope.....	E2/VM1 1.2
	skillion roofs.....	E2/VM1 1.4
	specimen details.....	E2/VM1 1.3
	test procedure.....	E2/VM1 1.4
	preconditioning.....	E2/VM1 1.4.1
	Series 1 Cyclic Pressure Water Penetration.....	E2/VM1 1.4.3
	Series 1 Static Pressure Water Penetration.....	E2/VM1 1.4.2
	Series 2 'Water Management Testing'.....	E2/VM1 1.4.4
Amend 12 Oct 2011	Series 3 'Wetwall Test'.....	E2/VM1 1.4.5
	transition period.....	E2/VM1 1.5
	External walls.....	C/AS1 3.14.3, 3.14.5, 3.14.6, 5.7.5, 5.7.6, 6.12.7, 7.1.1, 7.3, 7.4.1, 7.5 to 7.7, 7.8.7, 7.9.7, 7.9.10, 7.9.11, 7.10, 7.11.2, Figures 6.11, 6.12, 7.1, 7.3 and 7.11, Table 7.5
	cladding.....	C/AS1 7.9.18, 7.11.2, 7.11.3, C9.1, Table 7.5
	fire resistance ratings.....	C/AS1 3.14.5, 3.14.6, 5.7.5, 5.7.6, 7.3.10, 7.4.3, 7.8.3 to 7.8.5, 7.8.10 c), 7.9.9, 7.9.13, 7.10
	firecell separation.....	C/AS1 7.3, 7.8 to 7.10, Figures 7.1 to 7.12, Tables 7.1 to 7.4
	glazing.....	C/AS1 7.3.3 c), 7.3.5 to 7.3.7, 7.4, Figure 7.4, Table 7.1
	return walls.....	C/AS1 7.3.3 e), 7.3.9, 7.7, 7.10.4, Figure 7.9, Tables 7.3 and 7.4
	surface finishes.....	C/AS1 7.1.2 c), 7.11.2 to 7.11.3
	wing walls.....	C/AS1 7.3.3 d), 7.3.9, 7.7, 7.10.4, Tables 7.3 and 7.4

F

F rating
see Fire resistance ratings

Factories
see Industrial buildings

Falsework
see **Structure**

Farm buildings
see Buildings, farm buildings

Fascias
see Gutters, barges and fascias

FHC
see Fire hazard category

FI
see Flammability index

Fibre cement sheet..... **E2/AS1** 9.3.6.2, 9.7

decorative attachments **E2/AS1** 9.7.8
flush-finished systems..... **E2/AS1** 9.7.4, Figures 111-114
control joints..... **E2/AS1** 9.7.4.1, Table 19, Figure 111
finishes **E2/AS1** 9.7.4.2

jointed systems..... **E2/AS1** 9.7.3, Figures 104A-108
paint finish **E2/AS1** 9.7.3.1

limitations..... **E2/AS1** 9.7.1

material and installation **E2/AS3** 9.7.2
installation **E2/AS1** 9.7.2 1, Tables 23 and 24
parapets and enclosed balustrades **E2/AS1** 9.7.7
flush-finished topped balustrades..... **E2/AS1** 9.7.7.1, Figure 117
soffit details..... **E2/AS1** 9.7.5, Figures 8A and 114
windows and doors..... **E2/AS1** 9.7.6, Figures 115 and 116

Amend 12
Oct 2011

Fibre cement weatherboards **E2/AS1** 9.5

installation **E2/AS1** 9.5.3, Table 23
external corners..... **E2/AS1** 9.5.3.3, Figure 88
fixings **E2/AS1** 9.5.3.1, Table 24
internal corners..... **E2/AS1** 9.5.3.4, Figure 89
laps and joints..... **E2/AS1** 9.5.3.2, Figure 87
limitations..... **E2/AS1** 9.5.1
material performance..... **E2/AS1** 9.5.2
parapets and enclosed balustrades **E2/AS1** 9.5.5
protective coating..... **E2/AS1** 9.5.6
windows and doors..... **E2/AS1** 9.5.4
windows – direct fixed **E2/AS1** 9.5.4.1, Figures 17D and 90
windows – on cavity..... **E2/AS1** 9.5.4.2, Figures 17C and 91

Amend 12
Oct 2011

Amend 12
Oct 2011

Amend 12
Oct 2011

Filters
see Strainers

Final exits **C/AS1** 3.1.2, 3.1.3, 3.14.5, 3.16.4, 3.17.1 c), 3.18.1, 6.20.18 a), Figures 3.1, 3.2, 3.12, 3.19, 3.24 and 3.31, Table 6.1; **F8/AS1** 3.1.1 a) b), 3.2.3 a)

Index**NEW ZEALAND BUILDING CODE HANDBOOK**

- Fire alarm systems
 - see Fire safety precautions
- Fire engineering design **F7/AS1** 1.1.7, 1.4.1
- Fire fighting facilities **C/AS1** 8.2
- Fire hazard categories (FHC) **C/AS1** 1.3.2 Step 3, 2.2.1, 3.12.2 d), 3.12.3 c), 3.15.2 b),
 3.15.3 a), 4.2.3, 5.4.1 f) j), 6.6.7, 6.20.7, 6.20.15 a),
 6.21.5 a), 6.22.1, 7.1.3, 7.3.2 b), 7.5.2, 7.5.3 Step 4,
 7.7.5 Step 5, 7.8.1, 7.8.2, 7.8.9 c) d), 7.10.5 a),
 Figures 3.19, 3.20, 1 and 7.10 Note 3,
 Tables 2.1, 5.1, 7.1 to 7.4
 category 4 buildings **C/AS1** 2.2.10, 5.6.11 to 5.6.13, 7.8.1, 7.8.2, Table 2.1
- Fire load energy density (FLED) **C/AS1** 2.2.1 comments, 2.2.10, Table 5
- Fire resistance ratings (FRR) **C/AS1** 1.3.2 Step 8, 1.3.4 Steps 4 and 6,
 1.3.5 b), 3.6.1 c), 3.14.6 c), 3.16.6, 4.1.2, 4.3.2, 5.1, 5.2,
 5.9.5 a) b), 5.9.6, 6.2.1, 6.3.1, 6.6.1, 6.6.2, 6.6.5 to 6.6.7,
 6.7.1, 6.7.2, 6.7.5, 6.7.6, 6.8.1, 6.9.2, 6.9.3, 6.10.1,
 6.10.2, 6.10.5, 6.11.1, 6.12.1, 6.12.6, 6.14, 6.15,
 6.16.2, 6.17.2, 6.18.8, 6.19.14, 7.2.1, 7.4.3, 7.8.1 a),
 7.8.2 to 7.8.6, 7.8.10 b) c), 7.9.3, 7.9.4, 7.9.8 b),
 7.9.13, 7.10, C7.1.1, Figure 7.10, Table 6.1
 application of F and S ratings **C/AS1** 5.3
 applying FRRs to building elements **C/AS1** 5.7
 concessions for multiple purpose groups **C/AS1** 5.6.7, 5.6.8
 determining F and S ratings **C/AS1** 5.4, 5.5
 determining the FRR **C/AS1** 5.6
 fire resistance tests **C/AS1** 5.9.6, C7.1.1
 firecell rating (F) **C/AS1** 3.16.6, 4.1.2, 4.3.2, 4.4.1 Step 5, 4.5.7, 4.5.14, 5.2.2,
 5.3.1, 5.4, 5.5.1, 5.6.5, 5.6.9 a), 6.15.1, 6.16.2,
 6.20.15, 7.2.1 a), 7.10.2, 7.10.3, Table 4.1
 firecells rated F0 **C/AS1** 6.2
 floors **C/AS1** 3.14.6 c), 4.3.2, 5.6.4 d), 5.7.3, 6.10.3, 6.14, 6.15, 7.8.6
 insulation rating **C/AS1** 5.1.1 c), 5.6.4 to 5.6.6,
 5.8.10, 6.19.13, 7.8.1 a), Table 6.1 Notes
 integrity rating **C/AS1** 5.1.1 b), 5.6.6, 5.8.2, 7.4.3
 intermediate floors **C/AS1** 4.5.16, 6.14.3
 minimum FRRs **C/AS1** 5.7.9
 open sided buildings **C/AS1** 7.8.10 b) c), Figure 7.10
 reductions for sprinklered firecells **C/AS1** 5.6.6
 roofs **C/AS1** 7.8.1, 7.9.3, 7.9.8 b), Figures 7.1 and 7.11
 small buildings **C/AS1** 7.10.5
 stability rating **C/AS1** 5.1.1 a), 5.6.6, 5.9.4, 5.9.5
 structural fire endurance rating (S) **C/AS1** 2.2.10, 4.1.2, 4.2.3,
 5.2.2, 5.3.2, 5.4, 5.5.2, 5.5.3,
 5.6.5, 5.6.9 a), 5.6.11, 6.10.5, 7.2.1,
 7.4.3, 7.8.1 a), 7.8.5, 7.8.6, 7.10.2,
 7.10.5, 7.10.8, Table 5.1
- Fire resisting closures **C/AS1** 6.18.9, 6.19, C7.1.1, C8.1.1, Table 6.1
 - access panels **C/AS1** 6.19.12
 - fire curtains **C/AS1** 6.19.9, 6.19.10
 - fire dampers **C/AS1** 6.3.2 f), 6.16.4 d), 6.19.14
 - fire doors
 - see Doors
 - fire shutters **C/AS1** 6.19.15 to 6.19.17
 - lift landing doors
 - see Doors
 - smoke control doors
 - see Doors

Fire safety

see **Means of Escape, Outbreak of Fire, Spread of Fire, Structural Stability during Fire**

- Fire safety precautions (FSP) **C/AS1** 1.2.3, 1.3.2 Step 6, 2.3.1, 3.1.5, 4.2.6, 4.2.7, 4.3.1, 4.4.1, 4.5, 5.6.8, 6.10.1, 6.11.1, Appendix A, Table 4.1
- Amend 11 | automatic fire alarm system with modified smoke **C/AS1** 3.5.4, 4.5.4,
Sep 2010 | detection and manual call points (Type 5) 4.5.10, Table 4.1
- domestic (Type 1) **C/AS1** A2.1.1
- emergency electrical power supply (Type 17) **C/AS1** 6.23.1 d), 6.23.3, 6.23.4, A2.1
- emergency lighting (Type 16) **C/AS1** 3.19.2, 6.23.3 c), 6.23.4, A2.1
- emergency lighting in exitways **F7/AS1** 1.5.2
- fire alarm systems
- activation of system **F7/AS1** 2.1.1
- Amend 11 | automatic **F7/AS1** 1.1.3, 1.2.3 to 1.2.7
Sep 2010 |
- heat detectors **F7/AS1** 1.2.3, 1.2.5, 1.2.6, 1.3.1, 1.3.2, 1.3.4, 1.3.5
- high sensitivity smoke detection **F7/AS1** 1.1.7
- installation and maintenance **F7/AS1** 1.1.3, 1.1.5, 1.2.6, 1.2.7, 1.3, 1.4, 1.5.3
- manual (Type 2) **C/AS1** 4.5.3, 4.5.9, 4.5.10 b), A2.1; **F7/AS1** 1.1.1, 1.1.2, 1.2.2
- means of communication with the Fire Service
- see **Alerting the Fire Service**
- modified smoke detection **F7/AS1** 1.2.5 to 1.2.7
- requirements **F7/AS1** 2.1
- smoke detectors **F7/AS1** 1.1.6, 1.2.4, 1.2.9, 1.3, 1.4.1, 1.5.3
- substitution of smoke detectors by heat detectors **F7/AS1** 1.3.5
- fire hose reels (Type 14) **C/AS1** 8.2.2, A2.1
- fire hydrant systems (Type 18) **C/AS1** 8.2.1, A2.1
- Fire Service lift controls (Type 15) **C/AS1** 8.2.5, A2.1; **F7/AS1** 1.5.2
- fire sprinklers (Type 6) **C/AS1** 3.9.12 f), 3.15.3 a), 3.15.6, 3.15.7 a), 4.1.1 a), 4.5.10, 4.5.11, 5.6.13, 6.3.2 a) d), 6.6.8, 6.16.7, 6.18.10, 6.19.9, A2.1, Appendix D, Figure 7.2
- concessions for sprinklers **C/AS1** 3.3.2 c), 3.4.8 d), 3.5.2, 3.14.3, 3.15.3 a), 3.15.6, 3.15.7 a), 3.16.3 b), 4.2.5, 5.5.3, 5.6.6, 5.6.7 b), 5.6.8, 5.8.7, 5.8.8, 6.3.1, 6.5.1, 6.7.2, 6.9.6 d), 6.9.11, 6.10.5, 6.13.1, 6.20.5, 6.20.10, 6.20.15 a), 6.22.3 a), 7.2.2, 7.3.12, 7.7.6, 7.9.3, 7.9.10, 8.1.1 e), Tables 4.1 Note 5, 6.2
- residential **C/AS1** D3.1
- with smoke detectors (Type 7) **C/AS1** 3.12.2 b), 4.5.10, 4.5.11, 6.22.2 g), A2.1
- Amend 11 | fire sprinkler systems
Sep 2010 |
- automatic **F7/AS1** 1.2.5, 1.2.8, 1.3.2, 1.3.4
- with smoke detectors **F7/AS1** 1.2.9
- fire systems centre (Type 20) **C/AS1** 8.2.3, 8.2.4, A2.1
- heat detectors (Type 3) **C/AS1** 3.5.3, 3.5.5, 4.5.4, 4.5.10, 4.5.11, 6.10.4 c), 6.11.3 b), A2.1
- hold-open devices **F7/AS1** 1.3.6, 1.5.2
- manual (Type 2) **C/AS1** 4.5.3, 4.5.9, 4.5.10 b), A2.1
- mechanical smoke extract **F7/AS1** 1.3.8, 1.5.2
- mechanical smoke extract (Type 11) **C/AS1** 3.4.6 a), 3.4.8 d), 6.21.5, 6.22.7 c), 6.22.8 c), 6.22.11, 6.22.12, 6.22.14, A2.1, B3.1.1, Table 6.6
- modified smoke/heat detection (Type 5) **C/AS1** 3.5.4, A2.1
- natural smoke venting **F7/AS1** 1.3.8, 1.5.2
- natural smoke venting (Type 10) **C/AS1** 3.4.6 a), 3.4.8 d), 6.21.5, 6.22.7 b), 6.22.8 b) c), 6.22.10, 6.22.14, A2.1, B3.1.1, Table 6.5
- pressurisation of safe paths (Type 13) **C/AS1** 3.7.1 b), 3.11.6 b), 6.9.6, 6.9.11, 6.13.1, 6.19.4 c), 6.21.2, 6.23.1 b), A2.1, B1.1.1, Table 6.1 Note 2; **F7/AS1** 1.3.7, 1.5.2
- refuge areas (Type 19) **C/AS1** 3.13, A2.1, Figure 3.17

Fire safety precautions (FSP) (continued)

- smoke control in air-handling systems
(Type 9) **C/AS1** 6.23.2, A2.1; **F7/AS1** 1.5.2, 1.5.3
- smoke detectors **F7/AS1** 1.1.6, 1.2.4, 1.2.9, 1.3, 1.4.1, 1.5.3
- smoke detectors (Type 4) **C/AS1** 3.5.4, 3.5.5, 3.12.2 b), 3.17.10, 4.5.4, 4.5.10, 4.5.11, 6.22.2 g), 6.22.14, 6.23.1, A2.1, B1.1.1
- voice communication system (Type 8) **C/AS1** 3.16.3 d), 8.2.6, A2.1
- Fire separations **C/AS1** 1.3.5 b), 3.11.9, 4.1.1 a), 5.1.1, 5.3.1, 5.3.2 d) e), 5.6.3, 5.6.4 a), 5.6.5 c), 5.6.7, 5.7.2, 5.7.4, 6.2.1, 6.3.1, 6.6, 6.7, 6.8.1, 6.9.2, 6.9.3, 6.10.1, 6.10.2, 6.10.5, 6.11.1, 6.11.2, 6.12, 6.14.1, 6.14.4, 6.15.1 a), 6.17, 6.18.4, 6.18.7 to 6.18.10, 7.2.1, 7.2.2, Table 6.1
- junctions **C/AS1** 6.12.4 to 6.12.7, 6.12.9, 6.18.4, Figure 6.4
- protected shafts **C/AS1** 6.16, Figure 6.8
- Fire Service **C/AS1** 4.2.6 c), 5.9.3 f), 6.21.2, 6.22.12 b), Part 8, A2.1.1 Type 15 and Type 20; **F7/AS1** 1.2.2, 2.1.2 a), 2.2
- see also* Alerting the Fire Service
- installation and maintenance **F7/AS1** 1.1.3, 1.1.5, 1.2.6, 1.2.7, 1.3, 1.4, 1.5.3
- manual **F7/AS1** 1.1.1, 1.1.2, 1.2.2
- means of communication with **C/AS1** A1.3.1, A2.1.1 Type 2 and Type 7
- requirements **F7/AS1** 2.1
- activation of system **F7/AS1** 2.1.1
- smoke detectors **F7/AS1** 1.2.5, 1.3, 1.4, 1.5.3
- vehicular access **C/AS1** 8.1.1, 8.1.2
- Fire shutters
see Fire resisting closures
- Fire spread
 - horizontal **C/AS1** 4.1.1 b), 7.1.1 b), 7.3, 7.8
 - vertical **C/AS1** 4.1.1 b), 7.1.1 a), 7.9
 - between different levels of the same building **C/AS1** 7.9.10 to 7.9.15
 - external thermal insulation **C/AS1** 7.9.18, 7.9.19, Figure 7.12
 - from an adjacent lower roof **C/AS1** 7.9.6 to 7.9.9, Figure 7.11
 - roof car parking and storage **C/AS1** 7.8.2, 7.9.16, 7.9.17
- Amend 11
Sep 2010 | Fire stopping **C/AS1** 6.12.5, 6.12.7 a), 6.12.9, 6.17, 6.18.1, 6.18.4, C6.1.1, C6.1.2, Figures 6.4, 6.9 and 6.11
- cavity barriers **C/AS1** 6.18.4, 6.18.6, Figure 6.12
- curtain walls **C/AS1** 7.9.14, Figure 6.11
- external thermal insulation **C/AS1** 7.9.18, Figure 7.12
- hollow construction **C/AS1** 6.17.5, Figure 6.12
- protected shafts **C/AS1** 3.12.3 e), 6.16.3, 6.16.4 e), Figure 6.8
- service outlets **C/AS1** 6.17.6, Figure 6.9
- Firecell rating (F)
see Fire resistance ratings
- Amend 11
Sep 2010 | Firecells **F7/AS1** 1.2.5, 1.2.7, 1.3.1, 1.3.4, 1.3.5
- basements **C/AS1** 3.7, 4.5.15, 6.14.4
- buildings remaining occupied during fire **C/AS1** 5.6.9, 5.6.10
- car parking **C/AS1** 6.10.3 to 6.10.6
- ceiling space firecells **C/AS1** 6.12.8
- concealed spaces **C/AS1** 6.18.2, 6.18.3
- concessions for multiple purpose groups **C/AS1** 5.6.7, 5.6.8
- construction **C/AS1** 6.12
- fire hazard category 4 **C/AS1** 2.2.10, 5.6.11 to 5.6.13
- fire safety precautions
see Fire safety precautions
- firecells rated F0 **C/AS1** 6.2
- floor area limits **C/AS1** 4.2.3 to 4.2.5
- group sleeping areas **C/AS1** 6.6.3, 6.6.4, 6.6.7, 6.7.2 to 6.7.5
- intermediate floors **C/AS1** 4.5.16 to 4.5.18, 6.14.1 a), 6.14.3, 6.21.3 to 6.21.6, Figure 6.6, Tables 6.5 and 6.6

Firecells (continued)

limited area atriums	C/AS1 6.22, Figure 6.14, Tables 6.4 to 6.6
plant, boiler and incinerator rooms	C/AS1 6.11.3, 6.11.4
protected shafts	C/AS1 6.16
provision of firecells	C/AS1 4.2
roofs	C/AS1 7.8.1 to 7.8.5, 7.9.1 to 7.9.9
solid waste storage	C/AS1 6.10.2
suites	C/AS1 2.2.9, 3.15.5, 6.6.5, 6.7.6, 6.9.6, 6.14.3, A2.1.1 Type 5
top floor firecells	C/AS1 4.5.14

Fireplace

C/AS1 9.1 to 9.3, Figures 9.1 and 9.3, Table 9.1

Fire Safety

C/AS1, C/VM1

Fixings

E2/AS1 4.4, 8.1.4, 8.2.4, 8.3.7, 8.4.8, 8.4.8.1, 8.4.9, 8.4.9.1, 9.4.3.1, 9.4.4.3, 9.4.5.2, 9.5.3.1, 9.6.6, 9.7.3.1, 9.8.3.1, 9.9.4.1, Tables 14, 15, 20-22, 24, Figures 39 and 40

Fixtures

sanitary fixtures

see **Personal Hygiene**

Amend 11
Sep 2010 | Flame barriers

C/AS1 3.14.6 b) c), 6.18.5 c), 6.20.12 a), 6.20.13, 6.20.14 b), C9.1, Table 6.3

Flammability index (FI)

C/AS1 C3.1, Table 6.2

Flammable liquids

see **Hazardous Substances and Processes**, Class 3 flammable liquids

Flammable solids

see **Hazardous Substances and Processes**, Class 4 flammable solids

Amend 12
Oct 2011 | Flashings

E2/AS1 4.0, 8.2.4, 8.2.6, 8.3.8, 8.4.11, 8.4.11.1, 8.4.12, 9.2.4, 9.6.7, Tables 20-22, Figures 5 and 6

apron flashings

E2/AS1 5.1, 8.4.12 b), Figures 7, 35 and 44

Amend 12
Oct 2011 | fixings

E2/AS1 4.4, Tables 20-22

head flashings

E2/AS1 9.1.10.4, Table 7

Amend 12
Oct 2011 | jamb flashings

E2/AS1 9.1.10.6

materials

E2/AS1 4.1, 4.2, 4.2.1, 4.2.2, 4.3, 9.8.5, Tables 20-22

aluminium

E2/AS1 4.3.2

aluminium-zinc coated steel

E2/AS1 4.3.4

bituminous

E2/AS1 4.3.10

butyl rubber

E2/AS1 4.3.9

copper

E2/AS1 4.3.6

EPDM

E2/AS1 4.3.9

flexible flashing tape

E2/AS1 4.3.11

galvanised steel

E2/AS1 4.3.3

lead sheet

E2/AS1 4.3.7

stainless steel

E2/AS1 4.3.5

uPVC

E2/AS1 4.3.1

zinc sheet

E2/AS1 4.3.8

Amend 12
Oct 2011 | overlaps and upstands

E2/AS1 4.6, Table 7

overlap with roof claddings

E2/AS1 4.6.1

apron flashing cover over metal roofing

E2/AS1 4.6.1.1

barges

E2/AS1 4.6.1.5, Figure 47, Table 7

change in metal roof pitches

E2/AS1 4.6.1.3, Figure 44, Table 7

inter-storey junctions

E2/AS1 4.6.1.7, Figure 70, Table 7

parallel flashing

E2/AS1 4.6.1.1, Figures 47 and 48

ridges and hips

E2/AS1 4.6.1.2, Figure 46, Table 7

roof- or deck-to-wall junctions

E2/AS1 4.6.1.4, Figure 7, Table 7

transverse flashing

E2/AS1 4.6.1.1, Figure 7, Table 7

Amend 12
Oct 2011 | window and door heads

E2/AS1 4.6.1.6, Figures 71 and 81, Table 7

requirements

E2/AS1 4.5

edge treatments

E2/AS1 4.5.1, Figure 5

metal flashing joints

E2/AS1 4.5.2, Figure 6

Index

NEW ZEALAND BUILDING CODE HANDBOOK

- Flats
see Housing, multi-unit dwelling
- FLED
see Fire load energy density
- Flooding
flood risk assessment **E1/VM1** 3.2.2
history of **E1/AS1** 1.0.1
protection from **E1/VM1** 3.2.2
- Floors **NZBC/B2.3.1 (a), D1.3.3 (e), D1.3.4 (c), E2.3.3, E2.3.4, G6.3.1, G6.3.2;**
F7/AS1 1.1.2; **G3/AS1** 2.2.3, 2.2.4, 2.3.3,
 2.3.4, 2.3.5, 2.3.6
 basement floors **C/AS1** 3.3.2 i), 3.15.2, 6.14.4, Figure 3.19
 concealed spaces **C/AS1** 6.18.4, 6.18.5 a), 6.18.10

Amend 12
Oct 2011Amend 12
Oct 2011

- fire resistance ratings **C/AS1** 3.14.6 c), 4.1.1 a), 4.3.2, 4.5.7, 5.3.1, 5.6.4 d),
 5.6.8, 5.7.3, 6.10.3, 6.12.2, 6.14.2 to 6.14.4, 6.15.1
 floor projections **C/AS1** 7.8.6, 7.9.13
 flooring materials **C/AS1** 6.20.8, 6.20.14
 intermediate floors **C/AS1** 3.3.2 f), 3.4.6, 3.9.13, 4.5.16 to 4.5.18,
 5.6.4 d), 5.6.5 b), 6.10.3, 6.14.1 a), 6.14.3, 6.21.3, 6.22,
 A2.1.1 Type 10 and Type 11, B4.1.1, Figures 3.9 and 6.6,
 Tables 6.4 to 6.6
 limited area intermediate floors **C/AS1** 4.5.17, 6.21.4 a), 6.21.5, 6.21.6
 lower floors **C/AS1** 3.16.9, 4.5.10, 4.5.11, 6.7.7, 6.9.3, Figure 3.5
 more than one purpose group on a floor **C/AS1** 4.5.1 to 4.5.6, 5.6.11
 other floors in a building **C/AS1** 4.5.8 to 4.5.11
 same purpose group on different floors **C/AS1** 4.5.13
 sloping floors and ceilings **C/AS1** 3.4.8 a)
 subfloor spaces **C/AS1** 6.15.1, 6.18.5 a), Figure 6.7
 top floor firecells **C/AS1** 4.5.14
 upper floors **C/AS1** 3.15.3 b), 3.16.3 a), 4.5.11, 5.7.6 b), 6.7.7,
 6.8.2, 6.8.6, 7.5.7, Figure 3.5
 wooden floors **C/AS1** 6.12.6, 6.20.14
 floor/ceiling assemblies **G6/AS1** 1.0.3, Figure 3
 floor/wall junctions **G6/AS1** 1.0.3, Figure 5
 minimum floor level **E1/AS1** 2.0, Figures 1 and 2
 moisture **NZBC/E2.3.4**
 slip resistant **NZBC/D1.3.3 (d); G15/AS1** 3.0.2

Amend 12
Oct 2011

- Floor outlets **G13/AS1** 3.4
 Floor wastes **E3/AS1** 2.0.1, 2.2, Figure 4

Flues.....	NZBC/G11.3.3; G4/AS1 2.3, 2.4; G11/AS1 5.0
fire damper.....	G11/AS1 5.3
gas burning appliances.....	C/AS1 9.2
locations on dwellings.....	G4/AS1 2.4
materials.....	G11/AS1 5.1
oil fired appliances.....	C/AS1 9.3
safety devices.....	G11/AS1 5.2
solid fuel appliances.....	C/AS1 9.1
Foamed plastics building materials.....	C/AS1 6.20.1, 6.20.5 6.20.11 to 6.20.13, 7.9.18, Figure 7.12, Table 6.3
Food Preparation and Prevention of Contamination.....	G3
cooking.....	NZBC/G3.3.1 (c); G3/AS1 1.2.1, 1.4.1
energy supply.....	NZBC/G3.3.3
location.....	NZBC/G3.3.4
people with disabilities.....	NZBC/G3.3.5
preparation.....	NZBC/G3.3.1 (b) (d), G3.3.2
prevention of contamination.....	NZBC/G3.3.6
rinsing.....	G3/AS1 1.1.1
storage.....	NZBC/G3.3.1 (a); G3/AS1 1.3.1
refrigeration.....	G3/AS1 1.3.2, 1.4.1
ventilation.....	G3/AS1 1.3.2, 1.3.3, 1.3.4
surfaces.....	G3/AS1 1.1.2, 1.1.3, Figure 1
utensil washing.....	NZBC/G3.3.1 (b), G3.3.2
Foul Water.....	G13
<i>see also</i> Discharge pipes, Drains, Sanitary appliances, Sanitary fixtures, Vent pipes, Water seals, Water traps	
gravity flow.....	NZBC/G13.3.1 (a), G13.3.2 (a)
odours.....	NZBC/G13.1 (b), G13.3.1 (c), G13.3.2 (e); G13/AS1 3.1.1
offensive matter.....	NZBC/G13.1 (b)
on-site disposal systems.....	NZBC/G13.3.4
<i>see also</i> Industrial Liquid Waste	
outfalls.....	NZBC/G13.2, G13.3.2
personal hygiene.....	NZBC/G13.1 (a)
plumbing system.....	NZBC/G13.2, G13.3.1
sewer.....	NZBC/G13.3.3, G13.3.4, G15.3.3
three storey buildings.....	G13/AS1 Figure 7
Foundations.....	B1/VM4
<i>see also</i> Chimneys, foundations	
design parameters	
continuous vibration.....	B1/VM4 1.0.6
depth.....	B1/VM4 2.0.4
ground stability.....	B1/VM4 1.0.4
long-term loading.....	B1/VM4 2.0.6
short-term loading.....	B1/VM4 2.0.6
serviceability deformations.....	B1/VM4 1.0.3, Appendix B
pile foundations.....	B1/VM4 4.0
belled piles.....	B1/VM4 4.0.3 b), 5.1.2
bulbed piles.....	B1/VM4 4.0.3 c)
concrete piles	
cast-in-situ.....	B1/VM4 3.4.4
precast.....	B1/VM4 3.4.4, 5.1.1
downdrag.....	B1/VM4 4.5
nominal width.....	B1/VM4 4.0.3, 4.2.2, 4.6.1
notation.....	B1/VM4 4.1.1, Table 2
pile driving.....	B1/VM4 5.1.1
pile driving formula.....	B1/VM4 4.0.1
pile groups	
design pile lateral strength.....	B1/VM4 4.0.4
design pile vertical strength.....	B1/VM4 4.0.4
ultimate lateral strength.....	B1/VM4 4.6.1, Table 3
ultimate vertical strength.....	B1/VM4 4.4.1

Amend 11
Sep 2010

Foundations (continued)

- single piles
 - base resistance **B1/VM4** 4.1.3, Figures 3 and 4
 - column action **B1/VM4** 4.2
 - design pile lateral strength **B1/VM4** 4.0.4
 - design pile vertical strength **B1/VM4** 4.0.4
 - lateral strength **B1/VM4** 4.3
 - drained cohesionless soil **B1/VM4** 4.3.4
 - free head pile **B1/VM4** 4.3.2 a), 4.3.3 a), 4.3.4 a)
 - restrained head pile **B1/VM4** 4.3.2 b), 4.3.3 b), 4.3.4 b)
 - undrained cohesive soil **B1/VM4** 4.3.2
 - undrained consolidated soil **B1/VM4** 4.3.3
 - shaft resistance **B1/VM4** 4.1.4, Figure 5, Table 2
 - ultimate axial compression **B1/VM4** 4.0.1 to 4.0.3
 - vertical strength **B1/VM4** 4.1.2
 - strength reduction factors **B1/VM4** 4.7, Table 4
 - types
 - concrete **B1/VM4** 5.1.1, 5.1.2
 - steel **B1/VM4** 5.2.1, 5.2.2
 - timber **B1/VM4** 5.3
- shallow foundations **B1/VM4** 3.0
 - concrete slab-on-ground **B1/AS1** 2.1, 3.1, 4.1, **B1/AS3** 1.3
 - design bearing pressure **B1/VM4** 3.2.1, 3.2.4
 - design bearing strength **B1/VM4** 3.2.3
 - design sliding resistance **B1/VM4** 3.4.6
 - local shear **B1/VM4** 3.3.3
 - moment loading **B1/VM4** 3.1.4
 - notation **B1/VM4** 3.3.1, Figures 1 and 2
 - soils **B1/VM4** 3.1.2, 3.4.3
 - strength reduction factors **B1/VM4** 3.5,
 - surcharge **B1/VM4** 3.1.3
 - ultimate bearing strength **B1/VM4** 3.1.1, 3.2.2, 3.3.2, Figure 3
 - ultimate sliding resistance **B1/VM4** 3.4.2
 - ultimate sliding strength **B1/VM4** 3.4.4, 3.4.5

see also Chimneys, foundations

FRR

see Fire resistance ratings

FSP

see Fire safety precautions

Amend 12
Oct 2011

G

Garages

see OutbuildingsGas **G3/AS1** 1.4.1**Gas as an Energy Source** **G11**automatic cut-offs **NZBC/G11.3.2**flued appliances **NZBC/G11.3.3**gas supply authority **NZBC/G11.3.6**isolation devices **NZBC/G11.3.4**meters **NZBC G11.3.6**location **G11/AS1** 8.0over pressure protection **G11/AS1** 3.0safe pressure ranges **NZBC/G11.3.1**service risers **NZBC/G11.3.6**supply system **NZBC/G11.2, G11.3.1, G11.3.5**

Gas burning appliances

installation **C/AS1** 9.2seismic restraint **C/AS1** 9.2.2

Gases

see **Hazardous Substances and Processes**, Class 2 gasesGas fuel appliances **G4/AS1** 2.0, 3.0

Gas reticulation

another Acceptable Solution **G10/AS1** 5.0cleaning **G10/AS1** 1.1tailpipes **G10/AS1** 1.1.3concealed piping **G10/AS1** 1.4in concrete **G10/AS1** 1.4.1in enclosed spaces **G10/AS1** 1.4.2underground **G10/AS1** 1.4.3, Table 3construction **G10/AS1** 1.0corrosion control **G10/AS1** 3.0design **G10/AS1** 1.0.1 a)installation **G10/AS1** 1.2bends and offsets **G10/AS1** 1.2.1 d)risers **G10/AS1** 1.2.1 c)separation **G10/AS1** 1.2.1 b)supports **G10/AS1** 1.2.1 a), Table 2isolating valves **G10/AS1** 2.0materials **G10/AS1** 1.0.1 b), Table 1pipework in ducts **G10/AS1** 1.5unventilated ducts **G10/AS1** 1.5.4ventilated ducts **G10/AS1** 1.5.3vent lines **G10/AS1** 4.0, Tables 4 and 5welded joints **G10/AS1** 1.3Geology **B1/VM4** A1.2.1 a)Glazing **NZBC/F2.3.3; B1/AS1** 7.0; **C/AS1** 5.8, 6.19.11*see also* **Hazardous Building Materials**concession for sprinklers **C/AS1** 5.8.7, 5.8.8dimensions **C/AS1** 5.8.3 to 5.8.5fire resisting glazing **C/AS1** 5.8.1, 5.8.2, 7.3.3 c),
7.3.5, 7.3.7, 7.4, Figure 7.4, Table 7.1human impact safety **F2/AS1** 1.1in external walls **C/AS1** 5.8.2 a)in fire doors **C/AS1** 5.8.10in fire separations **C/AS1** 5.8.1, 5.8.2in safe paths **C/AS1** 5.8.1 c), 5.8.3 to 5.8.8, Figure 5.1in smoke control doors **C/AS1** 5.8.10, 5.8.11in smoke separations and protected paths **C/AS1** 5.8.9modifications to NZS 4223 **F2/AS1** 1.2

Index

NEW ZEALAND BUILDING CODE HANDBOOK

	Government agencies.....	NZBC/D1.3.4 (c) (iv)
	<i>see also</i> Commercial buildings	
	Government offices.....	NZBC/D1.3.4 (c) (iv)
	<i>see also</i> Commercial buildings	
	Grease traps.....	G13/AS2 3.4
	capacity.....	G13/AS2 3.4.3, 3.4.4
Amend 12 Oct 2011	Ground	
	good ground.....	B1/AS2 2.1, 3.1, 4.1, B1/AS3 1.3.2
	Ground conditions.....	B1/VM4 1.0.2, Appendix A
	Groundwater.....	B1/VM4 1.0.2, Appendices A, B; G14/VM1 1.6.1
	conditions.....	B1/VM4 1.0.2
	seasonal changes.....	B1/VM4 A1.2.1
	tidal changes.....	B1/VM4 A1.2.1
	Group sleeping areas.....	C/AS1 6.6.3, 6.6.4, 6.6.7, 6.7.2 to 6.7.4
	Gully traps.....	G13/AS1 Figures 5 and 7, G13/AS2 3.3, Figures 2 and 3
	construction.....	G13/AS2 3.3.1, Figure 4
	overflow relief.....	G13/AS2 3.3.2
	pipe diameters.....	G13/AS2 3.3.1
	Gutters.....	E1/AS1 5.0
	gradients.....	E1/AS1 5.3
	materials.....	E1/AS1 5.2, Table 6
	overflow outlets.....	E1/AS1 5.5
	sizing.....	E1/AS1 5.1, Figures 15 and 16
	thermal movement.....	E1/AS1 5.4, Table 7
	Gutters, barges, and fascias.....	E2/AS1 5.2, 8.1.6, 8.3.9, 8.4.14, 8.5.10, Figures 20 and 64
	internal gutters.....	E2/AS1 8.1.6.1, 8.4.16, 8.4.16.3, Figure 52
Amend 12 Oct 2011	parallel hidden gutters.....	E2/AS1 8.1.6.2, 8.4.16, 8.4.16.1, Figure 50
	valley gutters.....	E2/AS1 8.1.6.2, 8.4.16, 8.4.16.2, Table 8, Figures 37 and 51

H

Habitable spaces..... **NZBC/E3.3.1, G5.2.1 (a), G5.3.1, G5.3.3, G6.2, G7.2; G6/AS1 1.0.2**

Halls

see Communal non-residential

Halls of residence

see Communal residential

Handicapped people

see People with disabilities

Handrails **NZBC/D1.3.3 (j) (k), D1.3.4 (i); C/AS1 3.1.4, 3.3.3, 3.3.6 b), 3.9.8, 6.20.4 c) ; D1/AS1 1.5.2, 1.5.4 b), 1.6.1, 1.7, 5.2.1 g), 6.0, 6.0.1, 6.0.2, Figures 6 and 19**
 clearances **D1/AS1 6.0.7, Figure 26**
 handrail profiles **D1/AS1 6.0.7 to 6.0.9, Figure 26**
 height **D1/AS1 6.0.6, Figure 25**
 horizontal extensions **D1/AS1 6.0.4, 6.0.5, Figure 25**
 intermediate handrails **D1/AS1 6.0.2**
 relevant width **D1/AS1 6.0.9, Figure 26**
 slope **D1/AS1 6.0.4**

Hazards to building elements **F1/VM1 2.7**

Hazardous Agents on Site..... F1

see also Site investigation

assessment of sites **NZBC/F1.3.1**
 contaminants **F1/VM1 1.0.2 c, 2.1.2, 2.2.1 g), 2.2.2, 2.3.2, 2.5.1, 2.6.2 2.6.3, Table 2**

degradation of building materials **F1/VM1 2.7**
 likely effects on people **NZBC/F1.3.2**
 hazardous agents **F1/VM1 1.0.2 c), 2.2.1, 2.3.2, 2.5.1, 2.5.5, Table 2**
 network utility operators **F1/VM1 2.1.1 f)**
 remedial work **F1/VM1 2.6, Table 3**
 risk assessment **F1/VM1 1.0.2 c), 2.5, 2.5.4**

Hazardous Building Materials F2

see also Glazing

asbestos **F2/AS1 2.0**
 brittle materials **NZBC/F2.3.3**
 harmful concentrations **NZBC/F2.3.1**
 transparent panels **NZBC/F2.3.2**

Hazard category

see Fire hazard categories

Hazardous Substances and Processes F3

Class 1 **F3/VM1 3.1**
 Class 2 **F3/VM1 2.0.1, 2.0.2, 3.1, 3.2, 3.4.1**
 Class 3.1 **F3/VM1 2.0.1, 2.0.2, 3.1, 3.2, 3.4.1**
 Class 4 **F3/VM1 2.0.1, 2.0.2, 3.1, 3.4.1**
 Class 5 **F3/VM1 2.0.1, 2.0.2, 3.1, 3.4.1**
 control of adverse effects of ignition **F3/VM1 3.1**
 control of ignition **F3/VM1 3.1**
 isolation distances **F3/VM1 3.2**
 methods of construction **F3/VM1 3.2**
 other legislation **F3/VM1 1.0**
 scope **F3/VM1 2.0**
 secondary containment systems **F3/VM1 3.3**
 security **F3/VM1 3.4**
 explosions **NZBC/F3.3 (c)**
 food preparation and utensil washing areas **NZBC/G3.3.2 (b)**

Index

NEW ZEALAND BUILDING CODE HANDBOOK

- hazardous substances associated
 with building services **NZBC/G10.1, G10.2**
 protected ignition sources **NZBC/F3.3 (d)**
 release of pressure **NZBC/F3.3 (c)**
 released during fire **NZBC/C3.2 (d), C3.3.10**
 rendering hazardous materials harmless **NZBC/F3.3 (e)**
 sewers and public drains **NZBC/F3.3 (b)**
 signs **NZBC/F3.3 (g)**
 surface finishes **NZBC/F3.3 (f)**
 unauthorised access **NZBC/F3.3 (a)**
- Amend 11 | Hazardous wastes **G14/VM1 1.4.1 b), 1.9.1, 2.1.4, 2.2.1 b),**
 Sep 2010 | 2.2.4, 2.3.6, 2.4.4, 3.3
- Health camps
 see Communal residential
- Hearths **B1/AS3 1.4, 2.2, 2.2.1 to 2.2.3, C/AS1 9.5, Figure 9.3**
 hearth slabs **B1/AS3 2.2, 2.2.1 to 2.2.3**
- Heat detectors
 see Fire safety precautions
- Heat transfer solid fuel appliances
 limiting heat transfer **C/VM1 1.1**
- Heating
 see **Energy Efficiency, Interior Environment**
- Height
 see Building height or Escape height
- Height clearances **D1/AS1 1.4, 1.4.1, Figure 3, Table 1**
- Hobs **G3/AS1 1.2.1**
- Hospitals **NZBC/D1.3.4 (c) (iv); G1/AS1 Table 4**
 see also Communal residential
- Hostels
 see Communal residential
- Amend 12 | Hot dip galvanising **B1/AS3 1.8.6**
 Oct 2011 |
- Hot plates **G3/AS1 1.2.1**
- Hot water supply
 see Water supplies, hot
- Hotels **D1/AS1 9.1.1**
 see also Communal residential
- Household units **C/AS1 1.3.5, 1.3.6 b) c) e), 2.2.9 a), 3.11.6, 3.15.5, 3.15.8,**
 3.20.1, 6.1.1, 6.8.1, 6.14.3, 6.14.4, 6.20.1, 7.5.7, 7.9.19,
 7.10.6, 7.10.7, A2.1.1 Type 5, Table 6.2; **F7/AS1 1.1.2 b),**
 1.2.5, 1.3.2; **G6/AS1 1.0.2**
- Amend 11 | Housing **NZBC/A1 2.0, D1.3.3, E1.3.2, G1.3.5, G2.2, G3.2.1, G3.3.1 (a) to (d),**
 Sep 2010 | **G3.3.2 (c), G7.2, G12.3.4, G12.3.9, H1.3.2; F4/AS1 Table 1;**
 G3/AS1 1.0.1; G9/AS1 1.0; H1/VM1 1.0, 1.2, H1/AS1 1.0, 2.0
 detached dwellings **NZBC/A1 2.0.2, C3.3.2, C3.3.4, D1.3.2 (i), F6.2, F7.3,**
 F8.2, G15.2; H1/VM1 1.2
- Amend 11 | group dwellings **NZBC/A1 2.0.4, G8.2; H1/VM1 1.1.2**
 Sep 2010 | multi-unit dwellings **NZBC/A1 2.0.3, C3.3.2, D1.3.2 (i), F6.2, F8.2,**
 G8.2, G15.2; H1/VM1 1.1, 1.2, H1/AS1 2.1.2
- Amend 11 | HVAC systems **F7/AS1 1.5.3**
 Sep 2010 |

I

Identification of non-potable water supply **G12/AS1 4.2.1**
see also **Water supplies**

Illuminance **G7/VM1 1.0; G8/VM1 1.0, G8/AS1 1.0**
 measurement **G8/VM1 1.0.1**
 minimum **G8/AS1 1.0.3**

Impact insulation class (IIC) **G6/VM1 2.0**

In-service history **B2/VM1 1.1**

Industrial buildings **NZBC/A1 6.0, D1.3.2 (h), D1.3.3, E3.3.1, G1.3.5, G3.2.1, G3.3.1 (a) (b), G3.3.2 (b), G3.3.6, G8.2, G9.3.4, G12.3.9, H1.2 (a); G1/AS1 Table 1; G3/AS1 2.0.1; H1/AS1 1.0.2**

Industrial Liquid Waste G14

- Amend 11 | capacity **NZBC/G14.3.2 (a)**
- Sep 2010 | collection **G14/VM1 1.1.1, 1.4**
- location of facilities **G14/VM1 1.4**
- contamination of potable water **NZBC/G14.3.2 (c)**
- conveyance systems **G14/VM1 2.0**
- drainage **G14/VM1 2.2**
- Amend 11 | piping systems **G14/VM1 2.3, Table 3**
- Sep 2010 | pumps **G14/VM1 2.4, Figure 2**
- corrosion **G14/VM1 1.5.1, 1.5.2**
- Amend 11 | disposal **G14/VM1 1.1.1, Table 1, Figure 1**
- Sep 2010 | location of facilities **G14/VM1 1.4**
- to a natural waterway **G14/VM1 1.2.1 b)**
- to a sewer **G14/VM1 1.2.1 a), G14/AS1 1.2.1, 1.2.2**
- disposal systems **NZBC/G14.3.1**
- hazardous wastes
see Hazardous wastes
- Amend 11 | industry types **G14/VM1 1.2.2, Table 1**
- Sep 2010 | materials used in construction **G14/VM1 1.5.1**
- odours **NZBC/G14.3.1 (c), G14.3.2 (f)**
- resource consents **NZBC/G14.3.2 (d)**
- safety facilities **G14/VM1 3.3.2**
- security **G14/VM1 1.9**
- Amend 11 | separation of waste **G14/VM1 1.7.1**
- Sep 2010 | storage **G14/VM1 1.1.1, 1.2.1 c), 1.4**
- containers **NZBC/G14.3.1**
- location of facilities **G14/VM1 1.4**
- tanks
see Tanks
- Amend 11 | treatment **G14/VM1 1.1.1, 1.2, 1.2.2, 1.4, Figure 1, Table 1**
- Sep 2010 | location of facilities **G14/VM1 1.4**
- unauthorised access **NZBC/G14.3.2 (g)**
- Amend 11 | vehicle access **NZBC/G14.3.2 (b)**
- Sep 2010 |

Inspection chambers
see Maintenance access to drains

Inspection points
see Maintenance access to drains

Insulation
see Fire resistance ratings

Integrity
see Fire resistance ratings

Intellectually handicapped persons
see People with disabilities

Index**NEW ZEALAND BUILDING CODE HANDBOOK**

- Intended Life
see **Durability**
- Intended use **NZBC/B1.3.1, B1.3.2, D1.3.5 (a), E3.3.5, F1.3.2 (a), F3.3 (f), F4.3.2, G2.3.1, G3.2.1, G3.3.1 (a), G3.3.6, G5.2.1 (b), G9.2, G11.1 (c), G11.2, G12.3.5, G15.2**
- Interface with ancillary control systems..... **F7/AS1 1.5**
- Interior Environment G5**
 accessible reception areas..... **NZBC/G5.3.4**
 adequate activity space **NZBC/G5.1 (b), G5.2.1 (b)**
 see also Activity space
 enhanced listening systems **NZBC/G5.3.5, G5.3.6**
 internal temperature..... **NZBC/G5.1 (a), G5.2.1 (a), G5.3.1; G5/AS1 1.0, Tables 1 and 2**
 unsafe installations..... **NZBC/G5.1 (c), G5.2.2, G5.3.2**
- Interior lighting
see **Artificial Light G8**
- Interior linings **G3/AS1 1.6, 2.2**
 ceilings **G3/AS1 2.1.2, 2.2.3**
 floors **G3/AS1 2.2.3, 2.2.4, 2.3.3 to 2.3.6**
 walls **G3/AS1 1.6, 2.1.1, 2.1.2, 2.2.3, 2.2.4**
- Interior surfaces **G7/AS1 1.0.2 to 1.0.4, Table 1**
- Intermediate floors
see Floors
- Internal Moisture E3**
 concealed spaces..... **NZBC/E3.3.6; E3/AS1 3.2.2**
 condensation..... **E3/AS1 1.0.1, 1.1.5, 1.3**
 condensation channels **E3/AS1 1.3**
 energy efficiency..... **E3/AS1 1.1.5**
 floor surfaces **NZBC/E3.3.3, E3.3.5**
 free water overflow..... **NZBC/E3.2 (b), E3.3.2**
 fungal growth **NZBC/E3.2 (a); E3/AS1 1.0.1**
 overflow **E3/AS1 2.0**
 containment..... **E3/AS1 2.0.1, 2.1, Figure 1**
 floor waste..... **E3/AS1 2.0.1, 2.2**
 people with disabilities **E3/AS1 3.3.2**
 steel framing **E3/AS1 1.1.4 d)**
 thermal break **E3/AS1 1.1.4 d)**
 thermal resistance..... **NZBC/E3.3.1; E3/AS1 1.1**
 materials and installation **E3/AS1 1.1.3**
 ventilation **NZBC/E3.3.1; E3/AS1 1.0.1, 1.2**
 wall surfaces **NZBC/E3.3.4, E3.3.5**
 watersplash **E3/AS1 3.0**
 basins..... **E3/AS1 3.2.2, Figure 3**
 baths **E3/AS1 3.2.2, Figure 3**
 joints in linings **E3/AS1 3.2, Figure 2**
 lining materials **E3/AS1 3.1, Figure 1**
 showers..... **E3/AS1 3.3.1 to 3.3.5, Figures 4 and 5**
 sinks..... **E3/AS1 3.2.2, Figure 3**
 tubs **E3/AS1 3.2.2, Figure 3**
 urinals **E3/AS1 3.3.6**
 windows **E3/AS1 1.3.1**

JKL

Isolating valves..... **G12/AS1** 3.7.1, 5.4.2

J

Jetties

see Ancillary buildings

K

Kerbs **D1/AS1** 1.5.4 a), Figure 6
see also Ramps

Kindergartens
see Early childhood centres and Communal non-residential

Kitchens
see **Food Preparation and Prevention of Contamination**

Kitchen sinks **G13/AS1** 3.3.2, Figure 2, Table 2

L

Laboratory testing..... **B2/VM1** 1.2

Ladders **D1/AS1** 5.0

see also Stairs and ladders

height..... **D1/AS1** 5.1.2, 5.1.7

individual rung-type ladders..... **D1/AS1** 5.1.1 c), 5.4, Figure 24

clearance **D1/AS1** 5.4.1 c)

height..... **D1/AS1** 5.4.1 c)

rungs..... **D1/AS1** 5.4.1 a)

tread width **D1/AS1** 5.4.1 b)

width..... **D1/AS1** 5.4.1 b)

landings **D1/AS1** 5.3.2

length..... **D1/AS1** 5.1.5, 5.1.7

width..... **D1/AS1** 5.1.4

location..... **D1/AS1** 5.1.3

rung spacing..... **D1/AS1** 5.1.6

rung-type ladders..... **D1/AS1** 5.1.1 b), 5.3, Figure 20

clearances..... **D1/AS1** 5.3.1 e)

height..... **D1/AS1** 5.3.1 d)

landings **D1/AS1** 5.3.2, Figure 23

rungs..... **D1/AS1** 5.3.1 b)

slope..... **D1/AS1** 5.3.1 a)

width..... **D1/AS1** 5.3.1 c)

safety enclosures..... **D1/AS1** 5.1.2, Figures 21 and 22

step-type ladders **D1/AS1** 5.1.1 a), 5.2, 5.2.1, Figure 19

clearances..... **D1/AS1** 5.2.1 e)

height..... **D1/AS1** 5.2.1 d)

horizontal openings **D1/AS1** 5.2.1 f)

slope..... **D1/AS1** 5.2.1 a)

treads..... **D1/AS1** 5.2.1 b)

width..... **D1/AS1** 5.2.1 c)

types of ladders **D1/AS1** 5.1.1

Landings..... **NZBC/D1.3.2** (l) (m), **D1.3.4** (i)

Landslip..... **B1/VM4** A1.2.1 a)

- Amend 12**
Oct 2011
- Laundrying** **G2; NZBC/G2.2, G2.3.1 to G2.3.4; G2/AS1 1.0**
 electricity supply **G2/AS1 1.1.2**
 laundry tubs **E3/AS1 3.2.2, Figure 3; G2/AS1 1.0.1 a), 1.0.2, 1.1.1; G13/AS1 3.3.2, Figure 2, Table 2**
 another Acceptable Solution **G2/AS1 1.0.3**
 capacity **G2/AS1 1.0.2 a)**
 size **G2/AS1 1.0.2 b)**
 minimum dimensions **G2/AS1 1.2.1, Figure 1**
 number of facilities **G2/AS1 1.3.1, Table 1**
 overflow **NZBC/E3.3.2**
 people with disabilities **NZBC/G2.3.4; G2/AS1 1.2.2, Figure 2**
 washing machines **G2/AS1 1.0.1 b), 1.1.2**
 water supply **G2/AS1 1.1.1, 1.1.2**
- Lavatories**
 see **Personal Hygiene**
- Legionella bacteria** **G12/AS1 6.14.3, HB CS 9**
- Level access routes** **D1/AS1 2.0**
 protection from falling **D1/AS1 2.3**
 slip resistance **D1/AS1 2.1, Table 2**
 width **D1/AS1 2.2**
- Libraries**
 see **Communal non-residential**
- Lifts** **C/AS1 3.12.3, 6.16.1, 6.16.4 b) c), 6.23.3 b); D1/AS1 12.0**
 see also **Mechanical Installations for Access**
 doors **C/AS1 6.19.13, Table 6.1**
 Fire Service lift control **C/AS1 8.2.5, A2.1.1 Type 15**
 lift motor room **C/AS1 3.12.3 e), 6.16.4 c)**
 lift shafts
 see **Protected shafts**
- Light**
 see **Artificial Light, Natural Light, Lighting for Emergency**
- Light switches** **G9/AS1 2.0.1 a) b)**
- Lighting of access routes** **D1/AS1 1.5.4, 1.8**
- Lighting for emergency**
 see **'Visibility in Escape Routes'**
- Amend 11**
Sep 2010
- Limited area atriums** **C/AS1 6.22, Figure 6.14, Tables 6.4 to 6.6**
- Limited area intermediate floors**
 see **Floors**
- Liquid fuel**
 see **Piped Services, Hazardous Substances and Processes**
- Loadings**
 see **Design, loadings**
- Loads**
 see **Structure, loads**
- Location of heat and smoke detectors** **F7/AS1 1.3**
- Low-risk areas** **F4/AS1 1.2.2**

M

Maintenance **NZBC/B2.3.1, D2.3.1 (f), D2.3.4 (c), E1.3.3 (d), E2/AS1 2.5, G10.3.6, G11.3.4, G12.3.6 (d) (e), G13.3.1 (d), G13.3.2 (d), G14.3.2 (h), G15.3.2 (c);**

Amend 12
Oct 2011

general **E2/AS1 2.5**
normal **B2/AS1 2.1**
regular maintenance **E2/AS1 2.5.1**
scheduled **B2/AS1 2.2**

Maintenance access to drains **G13/AS2 5.7**
access chambers **E1/AS1 3.7.1, 3.7.2 b), 3.7.4, 3.7.5, Figure 12; G13/AS2 Figure 12**
access points **E1/AS1 3.7, 3.7.3, 3.7.7, G13/AS2 5.7, Figures 9 to 12**
inspection chambers **E1/AS1 3.7.1, 3.7.2 b), 3.7.4, 3.7.5, Figure 11; G13/AS2 Figure 11**
inspection points **E1/AS1 3.7.1, 3.7.2 b), G13/AS2 5.7, Figure 9**
location **G13/AS2 5.7.4**
rodding points **E1/AS1 3.7.1, 3.7.2 a), Figure 10; G13/AS2 5.7.4 f), Figure 10**

Marae

see Housing, group dwellings

Masonry

see Design, masonry

masonry buildings **B1/AS3 1.1.1**

Masonry tiles **E2/AS1 8.2**

Amend 12
Oct 2011

anti-ponding boards **E2/AS1 8.2.5, Figure 25**
details and flashings **E2/AS1 8.2.6, Figures 23-28, 73D and 73E**
flashings and fixings **E2/AS1 8.2.4, Tables 20-22**

Amend 12
Oct 2011

general **E2/AS1 8.2.2**
installation **E2/AS1 8.2.3, Tables 10, 20 and 23**
materials **E2/AS1 8.2.1**
tile profiles **E2/AS1 8.2.1.1**
penetrations **E2/AS1 8.2.7, Figures 29-31**

Masonry veneer **E2/AS1 9.1.3.2, 9.2, Table 18**

Amend 12
Oct 2011

cavities **E2/AS1 9.2.6, Figure 73C**
control joints **E2/AS1 9.2.8, Figure 73A**
clay bricks **E2/AS1 9.2.8.1, Figure 73A**
concrete bricks **E2/AS1 9.2.8.2, Figure 73A**
flashings **E2/AS1 9.2.4**
foundation support and damp proofing **E2/AS1 9.2.5**
general **E2/AS1 9.2.2**
installation **E2/AS1 9.2.3, Table 23, Figure 73B**
limitations **E2/AS1 9.2.1**
openings **E2/AS1 9.2.9, Table 18D**
secondary cladding **E2/AS1 9.2.1**
wall ties **E2/AS1 9.2.7, Tables 18A-18C**
windows and doors **E2/AS1 9.2.10, Figures 73C and 73D**

Amend 12
Oct 2011

Means of Escape

see Escape routes, Evacuation time, Exitways, Final exits,
Fire hazard category, Open paths, Safe paths, Safe place, Travel distance

Mechanical Installations for Access D2

control system **NZBC/D2.3.1 (e)**
emergency conditions **NZBC/D2.3.3**
escalators **NZBC/D1.3.3 (e)**
lifts **NZBC/D1.3.1 (c), D1.3.2 (c), D1.3.4 (c); D1/AS1 12.0**
lighting **NZBC/D2.3.2 (c)**
loads **NZBC/D2.3.1 (a)**
location of potentially dangerous equipment **NZBC/D2.3.4**
people with disabilities **NZBC/D2.3.5**
servicing mechanical installations **NZBC/D2.1 (b)**

Index

NEW ZEALAND BUILDING CODE HANDBOOK

- Mechanical ventilation
see **Ventilation**
- Medical consultancy rooms..... **NZBC/D1.3.4 (c) (iv)**
see also Communal non-residential
- Membrane cappings**..... **E2/AS1 6.5**
- Amend 12 | **Metal cappings**..... **E2/AS1 6.4, 7.4.4, 9.9.10.2, Figure 9**
 Oct 2011 |
- Membrane roofs and decks**..... **E2/AS1 8.5**
- butyl and EPDM..... **E2/AS1 8.5.4**
- control joints..... **E2/AS1 8.5.7**
- general..... **E2/AS1 8.5.2**
- gutters..... **E2/AS1 8.5.10, Figure 64**
- installation..... **E2/AS1 8.5.5**
- butyl and EPDM..... **E2/AS1 8.5.5.2**
- plywood..... **E2/AS1 8.5.5.1**
- Amend 12 | junctions..... **E2/AS1 8.5.8, Figures 57, 58 and 61-62**
 Oct 2011 | with walls..... **E2/AS1 8.5.8.1, Figure 62**
- limitations..... **E2/AS1 8.5.1, Figure 17A**
- penetrations..... **E2/AS1 8.5.9, Figures 59 and 60**
- handrails..... **E2/AS1 8.5.9.1**
- Amend 12 | plywood substrates..... **E2/AS1 8.5.3**
 Oct 2011 | roof and deck drainage..... **E2/AS1 8.5.6, Figures 56-64**
- Mixing devices
see Water supply, hot
- Moisture
see **External Moisture, Internal Moisture, Surface Water**
- Motels..... **D1/AS1 9.1.1**
see also Communal residential
- Municipal offices..... **NZBC/D1.3.4 (c) (iv)**
see also Commercial buildings
- Museums
see Communal non-residential

N

Natural Light **G7**
 awareness of the outside environment **NZBC/G7.1, G7.2, G7.3.2**
 minimum illuminance **NZBC/G7.3.1**

Natural ventilation
 see **Ventilation**

Amend 11 | Network utility operators **NZBC/G11.3.6, G13.3.3, G15.3.3, H1.1; F1/VM1 2.1.1 f)**
Sep 2010 | **G14/VM1 1.2.1 a), G14/AS1 1.2.1, 1.2.2**

No-sky line condition **G7/AS1 1.0.3, Figure 3**

Non-potable water supply
 see Water supply

Non-return valves **G12/AS1 Figures 7 to 10, Table 6**

Notional boundary **C/AS1 7.3.13 to 7.3.15, 7.5.3 Step 1, 7.7.1, Table 7.4**

Nurses' or Nursing homes
 see Communal residential

P

- Amend 12
Oct 2011 | Parapets **E2/AS1** 6.0, 9.3.9, 9.4.8, 9.5.5, 9.6.9.8, 9.7.7, 9.8.7, 9.9.10
C/AS1 6.12.7 b), 7.1.2 e), 7.8.1 b), 7.8.2, 7.9.2 b), Figure 7.1
- Amend 12
Oct 2011 | capping materials **E2/AS1** 6.3
general **E2/AS1** 6.2, Figure 9
limitations **E2/AS1** 6.1
integral surface cappings **E2/AS1** 6.6
membrane cappings **E2/AS1** 6.5
metal cappings **E2/AS1** 6.4, Figures 9 and 10
parapet-to-wall junctions **E2/AS1** 6.4.1, Figures 11 and 12
- Amend 12
Oct 2011 | Pedestrians
see **Access Routes**
- Penetrations **C/AS1** 3.12.3 e), 6.12.4, 6.12.9 d), 6.16.4 e), 6.17.1, 6.17.4,
6.17.5, 6.17.7, 6.18.6 c), 6.18.9, 6.20.13 a)
- People with disabilities **NZBC/F8.3.4**; **C/AS1** 2.4, 3.15.1 e), 3.17.1 e); **D1/AS1** 1.1.4,
Table 9; **E3/AS1** 3.3.2; **F7/AS1** 2.1.2 d) f); **F8/AS1** 5.0;
G1/AS1 1.1.2, 1.2.2, 4.0, 4.1, 4.2, Figures 5 to 9,
Tables 1 and 2; **G2/AS1** 1.2.2, Figure 2; **G3/AS1** 1.5.2;
G5/AS1 3.0; **G9/AS1** 2.0; **G12/AS1** 8.0
accessible route identification **F8/AS1** 5.0.1 a) b)
accessible routes **G1/AS1** 4.1.1
electrical installations **NZBC/G9.3.4**
enhanced listening systems **NZBC/G5.3.5**, **G5.3.6**
facility identification **F8/AS1** 5.0.1 b)
food preparation and cooking facilities **NZBC/G3.3.5**
information and warning signs **NZBC/F8.2 (d)**, **F8.3.4**
listening system identification **F8/AS1** 5.0.3, Figure 7
mechanical installations for access
see **Mechanical Installations for Access**
personal hygiene facilities **NZBC/G1.3.5**
provision of laundering facilities **NZBC/G2.3.4**
usable water taps **G12/AS1** Figure 18
water supply **NZBC/G12.3.9**
- Pergolas
see Decks and Pergolas
- Personal Hygiene** **G1**; **NZBC/G13.1 (a)**
see also Sanitary fixtures
absence of facilities **NZBC/G1.1 (b)**
access to facilities **NZBC/D1.3.3 (c)**, **G1.3.5**
location of facilities **NZBC/G1.3.4**
non-water-borne disposal system **NZBC/G1.3.2 (h)**
overflows from sanitary fixtures **NZBC/E3.3.2 to E3.3.4**
people with disabilities **NZBC/G1.3.5**; **G1/AS1** 1.1.2, 1.2.2, 4.0, 4.1, 4.2
privacy **G1/AS1** 6.0
cubicles **G1/AS1** 6.2, Figure 11
line of sight **G1/AS1** 6.1, Figure 10
lobbies **G1/AS1** 6.3
unisex facilities **G1/AS1** 1.1.5
privies **G1/AS1** 5.0.2
water-borne disposal system **NZBC/G1.3.2 (g)**, **G13.1 (b)**
- Piles
see Foundations

	Piped Services	G10
	extreme temperatures	NZBC/G10.1, G10.2
	gas pipes	NZBC/G10.3.2, G10.3
	hazardous substances	NZBC/G10.1, G10.2
	identification of piping systems	NZBC/G10.3.4
	isolating devices	NZBC/G10.3.6
	piping systems	NZBC/G10.3.1
	preventing sound transmission	G6/AS1 1.0.1 c)
	protection against corrosion	NZBC/G10.3.3
	Pipes	
	see also Discharge pipes, Discharge stacks, Vent pipes	
	installation	G11/AS1 4.0
	jointing methods	G13/AS1 6.1.1
	materials	G13/AS1 2.1.1, Table 1
	sizing	G11/AS1 1.0
	pressure ranges	G11/AS1 1.1
	flow velocities	G11/AS1 1.4
	pressures above 1.5 kPa	G11/AS1 1.3
	pressures below 1.5 kPa	G11/AS1 1.2
	supports	G13/AS1 6.2.1, Table 7
	thermal movement	G13/AS1 6.3
	watertightness	G13/AS1 7.0
	Placement of detectors	F7/AS1 1.4
	Places of assembly	D1/AS1 8.0
	see also Communal non-residential	
	Plumbing systems	
	see Foul Water	
	Plywood sheet	E2/AS1 9.8
	corners	E2/AS1 9.8.4
	external	E2/AS1 9.8.4.1, Figure 122
	Internal	E2/AS1 9.8.4.2, Figure 123
	finishes	E2/AS1 9.8.9
	flashing material	E2/AS1 9.8.5, Tables 20-22
	installation	E2/AS1 9.8.3, Table 23
Amend 12 Oct 2011	fixings	E2/AS1 9.8.3.1, Table 24
	joints	E2/AS1 9.8.3.2, Figures 119 and 121
Amend 12 Oct 2011	limitations	E2/AS1 9.8.1
	materials	E2/AS1 9.8.2, Figure 119
Amend 12 Oct 2011	parapets and enclosed balustrades	E2/AS1 9.8.7
	soffit details	E2/AS1 9.8.6, Figure 8A
	windows and doors	E2/AS1 9.8.8
Amend 12 Oct 2011	direct fixed	E2/AS1 9.8.8.1, Figure 115
	with cavity	E2/AS1 9.8.8.2, Figure 116
	Pools	
	see Swimming pools	
Amend 11 Sep 2010		
	Potable water supply	
	see Water Supplies	

	Pressed metal tiles	E2/AS1 8.3
	barges	E2/AS1 8.3.9, Figures 34-37
	fascias	E2/AS1 8.3.9, Figures 34-37
Amend 12 Oct 2011	fixings	E2/AS1 8.3.7, Figure 33
	flashings	E2/AS1 8.3.8, Table 7, Figures 34-37
	gutters	E2/AS1 8.3.9, Figures 34-37
Amend 12 Oct 2011	installation	E2/AS1 8.3.2
	limitations	E2/AS1 8.3.1
	metal substrate	E2/AS1 8.3.4
	aluminium	E2/AS1 8.3.4.3
	choice of metal	E2/AS1 8.3.4.1
	steel	E2/AS1 8.3.4.2, Table 20
Amend 12 Oct 2011	ridges	E2/AS1 8.3.9, Figures 34-37
	roof penetrations	E2/AS1 8.3.10, Figure 29
Amend 12 Oct 2011	roof pitch	E2/AS1 8.3.5, Figure 32
	tiles and accessories	E2/AS1 8.3.3
	underlay	E2/AS1 8.3.6, Table 23
	Pressure limiting valves	G12/AS1 5.3.2, 6.2.1 c), Figure 8, Table 6
	Pressure reducing valves	G12/AS1 5.3.2, 6.2.1 b), Figures 7 and 9, Table 6
	Pressure regulators	G11/AS1 2.1
	Pressure relief valves	G12/AS1 6.4.1, 6.6, Table 6
	installation	G12/AS1 6.6.5
	relief valve drains	G12/AS1 6.7, Figures 12 and 13
	Pressurisation of safe paths see Fire safety precautions	
	Principal entrance	D1/AS1 1.1
	Prisons see Communal residential	
	Privacy see Personal Hygiene	
	Privies see Personal Hygiene , privies	
	Profiled metal roof claddings	E2/AS1 8.4
	allowance for expansion	E2/AS1 8.4.10, Table 16, Figure 39
Amend 12 Oct 2011	fixings: corrugated and trapezoidal profiles	E2/AS1 8.4.8, Figure 39, Tables 11, 12, 14, 15
	requirements	E2/AS1 8.4.8.1
	fixings: trough profile	E2/AS1 8.4.9, Figure 40, Tables 13, 20, 21
	flashing details	E2/AS1 8.4.12, Figures 43-48
	flashing requirements	E2/AS1 8.4.11, Tables 21 and 22, Figures 41 and 42
	fixing flashings	E2/AS1 8.4.11.1, Table 21, Figure 6
Amend 12 Oct 2011	general	E2/AS1 8.4.2
	hidden gutters	E2/AS1 8.4.16, 8.4.16.1, Figure 50
	internal gutters	E2/AS1 8.4.16, 8.4.16.3, Figure 52
	limitations	E2/AS1 8.4.1
	materials	E2/AS1 8.4.3
	aluminium	E2/AS1 8.4.3.3
Amend 12 Oct 2011	choice of metal	E2/AS1 8.4.3.1, Table 20
	steel	E2/AS1 8.4.3.2, Table 20
	parallel hidden gutters	E2/AS1 8.4.16, 8.4.16.1, Figure 50
	profile closure	E2/AS1 8.4.15
	profiles	E2/AS1 8.4.4, Figure 38
	roof penetrations	E2/AS1 8.4.17, Table 17, Figures 21 and 53-55
	roof pitch	E2/AS1 8.4.5
Amend 12 Oct 2011	stopends	E2/AS1 8.4.13, Figure 49
	structure	E2/AS1 8.4.6, Tables 11-15
	turn-downs at gutters	E2/AS1 8.4.14
	underlay	E2/AS1 8.4.7, Table 23
	valley gutters	E2/AS1 8.4.16, 8.4.16.2, Table 8, Figure 51

- Amend 12
Oct 2011 | Profiled metal wall claddings **E2/AS1 9.6**
(horizontal and vertical)
 fixings **E2/AS1 9.6.6**, Table 20, Figure 39
 flashings **E2/AS1 9.6.7**, Figures 5 and 6, Table 21
 general **E2/AS1 9.6.2**
 horizontal profiled metal on cavity **E2/AS1 9.6.9**
 barges **E2/AS1 9.6.9.4**, Figure 97
 bottom of cladding **E2/AS1 9.6.9.5**, Figure 98
 cavity battens **E2/AS1 9.6.9.2**, Table 23
 corners **E2/AS1 9.6.9.3**, Figure 96
 installation **E2/AS1 9.6.9.1**, Table 23
 parapets and balustrades **E2/AS1 9.6.9.8**, Figures 101 and 102
 penetrations **E2/AS1 9.6.9.6**, Figures 53 and 69
 windows and doors **E2/AS1 9.6.9.7**, Figures 99 and 100
 limitations **E2/AS1 9.6.1**, Figure 38, Table 3
 maintenance **E2/AS1 9.6.4**
 materials **E2/AS1 9.6.3**
 aluminium **E2/AS1 9.6.3.3**
 choice of metal **E2/AS1 9.6.3.1**, Table 20
 steel **E2/AS1 9.6.3.2**, Table 20
 profiles **E2/AS1 9.6.5**, Figure 38
 vertical profile – direct fixed **E2/AS1 9.6.8**
 barges **E2/AS1 9.6.8.2**, Figure 92
 bottom of cladding **E2/AS1 9.6.8.3**, Figure 93
 corners **E2/AS1 9.6.8.4**, Figures 93 and 94
 installation **E2/AS1 9.6.8.1**, Table 23
 penetrations **E2/AS1 9.6.8.5**, Figures 53 and 69
 windows and doors **E2/AS1 9.6.8.6**, Figures 95 and 100
- Amend 12
Oct 2011 |
- Amend 12
Oct 2011 |
- Amend 12
Oct 2011 |
- Protected paths
 see Escape routes
- Protected shafts **C/AS1 6.10.4 a)**, 6.12.4, 6.16, Figure 6.8
- Protecting other property
 see **Spread of Fire, Internal Moisture, Water Supplies**
- Protection of gas supply **G11/AS1 7.0**
 contamination **G11/AS1 7.1**
 low pressures **G11/AS1 7.2**
- Protection of water supplies **G12/AS1 3.4**
 air gaps **G12/AS1 3.5**
 backflow prevention devices **G12/AS1 3.6**
 atmospheric vacuum breakers **G12/AS1 3.6.2 d)** 3.6.4 d), 3.7.1, Table 2
 double check valves **G12/AS1 3.6.2 b)**, 3.7.2, Table 2
 pressure vacuum breakers **G12/AS1 3.6.2 c)**, 3.6.4 c), 3.7.1, Table 2
 reduced pressure zone devices **G12/AS1 3.6.2 a)**, 3.6.4 a), 3.7.2, Table 2
 cross connections **G12/AS1 3.1**, 3.2
 hazard **G12/AS1 3.3**
 installation **G12/AS1 3.6.3**, 3.6.4, 3.7.1
 testing **G12/AS1 3.7**
- Purpose groups **C/AS1 1.3.2** Step 3, 2.1.3, 2.2.1, 2.3.2, 3.4.2 b), 4.2.7 a) c), 4.5.1, 4.5.2, 4.5.8, 4.5.13, 5.8.4, 7.5.10, 7.8.5, 7.9.6, 7.11.3, Tables 2.1, 3.1 to 3.3, 4.1, 6.1 to 6.3 and 7.5
- Amend 11
Sep 2010 |
 active purpose groups **C/AS1 3.15.1 b)**, 3.15.3, 4.4.1 Step 2, Table 4.1
 concessions for multiple purpose groups **C/AS1 5.6.7**, 5.6.8, 5.6.11
 fire hazard category 4 **C/AS1 2.2.10**, 5.6.11
 primary purpose group **C/AS1 2.2.2**, 2.2.4, 2.2.7, 4.2.7 c), 4.4.1 Step 1, 4.5.5, 6.10.1, 6.11.1, 6.11.2
 residential community care **C/AS1 2.4**
 sleeping purpose groups **C/AS1 3.9.12 f)**, 3.15.1 c), 3.15.5, 4.4.1 Step 2, 4.5.11, 5.3.2 a), 5.7.9, 6.1.2 b), 7.7.1, 7.8.10 a), 7.9.1, 7.9.16, 7.10.5 c), A1.2.1 Type 16, Tables 4.1 and 7.4

Purpose groups (continued)

- CL **C/AS1** 2.2.3, 2.2.6, 3.5.2 a), 3.5.3 a), 3.5.4 a), 3.5.6 c), 3.16.1, 3.16.3, 3.16.7, 3.17.1 c), 3.17.9 a), 6.3, 6.20.7, 6.20.17, 6.20.18 d), 6.20.20, 6.22.1, A2.1.1 Type 16, Tables 2.1, 3.1 to 3.3, 6.2 and 6.3; **F7/AS1** 1.3.5 b)
- CM **C/AS1** 3.5.2 a), 3.5.3 a), 3.5.4 a), 3.5.6 c), 3.15.1 b), 3.15.3, 3.15.4, 3.17.1 c), 6.4, 6.20.17, 6.20.20, 6.22.1, 7.9.10 b), Figure 3.20, Tables 2.1, 3.1 to 3.3, 6.2 and 6.3; **F7/AS1** 1.3.5 b)
- CO **C/AS1** 3.9.3 b), 3.15.1 b), 3.16.5 to 3.16.7, 4.3.3, 6.5, A2.1.1 Type 16, Tables 2.1, 3.1, 3.3, 6.2 and 6.3
- CS **C/AS1** 2.2.3, 2.2.6, 2.2.7, 3.5.2 a), 3.5.3 a), 3.5.4 a), 3.5.6 c), 3.15.1 b), 3.15.3, 3.15.4, 3.18.1, 6.3.1, 6.20.7, 6.20.17, 6.20.20, 6.22.1, A2.1.1 Type 16, Figure 3.20, Tables 2.1, 3.1 to 3.3, 6.2 and 6.3; **F7/AS1** 1.3.5 b)
- IA **C/AS1** 3.5.2 a), 3.5.3 a), 3.5.4 a), 3.5.6 b), 3.10.2, 3.15.1 b), 3.15.3, 3.15.4, 4.3.3, 6.10, 6.22.1, A2.1.1 Type 16, Figure 3.20, Tables 2.1, 3.1 to 3.3 and 6.3
- ID **C/AS1** 3.5.2 a), 3.5.3 a), 3.5.4 a), 3.5.6 b), 3.15.1 b), 3.15.3, 4.3.3, 6.11, A2.1.1 Type 16, Tables 2.1, 3.1 to 3.3 and 6.3
- IE **C/AS1** 4.3.3, 6.9, 6.20.20, 7.3.1 a), 7.3.14, 7.5.3 Step 1, 7.9.6 a), 7.9.10 a), Tables 2.1 and 6.2
- SA **C/AS1** 2.2.3, 2.2.9, 2.3.6, 3.5.2 b), 3.5.3 b), 3.5.4 b), 3.9.12 f), 3.9.14, 3.11.6, 3.15.1 c), 3.15.5 to 3.15.7, 3.16.9, 3.17.9 b) d), 3.18.1, 4.5.11, 5.7.6 b), 5.8.2 c), 6.7, 6.9.6, 6.14.3, 6.16.5, 6.18.7, 6.20.20, 6.22.1, 7.1.1 b), 7.3.1 a), 7.3.14, 7.5.3 Step 1, 7.5.7, 7.5.9, 7.5.10, 7.9.6 a), 7.9.10 a), A2.1.1 Type 4, Type 5, Type 7, Figures 3.21 and 7.7, Tables 2.1, 3.1 to 3.3, 6.1 to 6.3 and 7.5; **F7/AS1** 1.1.2 b), 1.2.5, 1.3.5 a) b), 2.1.2 d)
- SC **C/AS1** 2.3.6, 3.9.12 f), 3.9.14, 3.11.6, 3.16.8, 3.17.4, 3.17.9 b) d), 4.5.11, 5.7.6 b), 5.8.2 c), 6.6, 6.9.6, 6.11.3, 6.20.8 b), 6.20.20, 7.1.1 b), 7.3.1 a), 7.3.14, 7.5.3 Step 1, 7.9.6 a), 7.9.10 a), 7.11.1, 8.1.2, Tables 2.1, 3.1 to 3.3, 6.1 to 6.3 and 7.5; **F7/AS1** 1.3.5 a) b), 2.1.2 e), 2.2.3
- SD **C/AS1** 2.3.6, 3.9.12 f), 3.9.14, 3.11.6, 3.16.8, 3.17.4, 3.17.9 b) d), 4.5.11, 5.7.6 b), 5.8.2 c), 6.6, 6.9.6, 6.11.3, 6.20.8 b), 6.20.20, 7.1.1 b), 7.3.1 a), 7.3.14, 7.5.3 Step 1, 7.9.6 a), 7.9.10 a), 7.11.1, 8.1.2, Tables 2.1, 3.1 to 3.3, 6.1 to 6.3 and 7.5; **F7/AS1** 1.3.5 a) b), 2.1.2 e), 2.2.3
- SH **C/AS1** 1.3.3, 1.3.4, 2.2.8, 2.2.9 b), 3.5.2 b) to 3.5.4 b), 3.15.1, 3.20.1, 4.3.3, 5.9.4 c), 6.8, 6.14.3, 6.14.4, 6.20.1, 7.1.1 b), 7.3.1 a), 7.3.14, 7.5.3 Step 1, 7.5.7, 7.5.9, 7.5.10, 7.8.5, 7.9.19, 7.10.6, 7.10.8, 7.11.4, Figure 7.7, Tables 2.1, 3.3, 6.2 and 6.3
- SR **C/AS1** 1.3.5, 2.2.9 a), 3.5.2 b), 3.5.3 b), 3.5.4 b), 3.11.6, 3.15.1 c), 3.15.5 to 3.15.7, 3.16.9, 3.17.9 b) d), 3.18.1, 3.20.1, 4.5.11, 5.7.6 b), 5.8.2 c), 6.8, 6.9.6, 6.14.3, 6.14.4, 6.16.5, 6.18.7, 6.20.1, 6.20.20, 6.22.1, 7.1.1 b), 7.3.1 a), 7.3.14, 7.5.3 Step 1, 7.5.7, 7.5.9, 7.5.10, 7.8.5, 7.9.6 a), 7.9.10 c), 7.9.19, 7.10.6 to 7.10.8, A2.1.1 Type 4, Type 5, Type 7, Figures 3.21 and 7.7, Tables 2.1, 3.1 to 3.3, 6.1 to 6.3 and 7.5; **F7/AS1** 1.1.2 b), 1.2.5, 1.3.5 a) b)
- WF **C/AS1** 3.5.2 a), 3.15.1 b), 5.8.4, Tables 2.1, 3.1 to 3.3, 6.2 and 6.3
- WH **C/AS1** 3.5.2 a), 3.5.3 a), 3.5.4 a), 3.5.6 c), 3.15.1 b), 5.8.4, Tables 2.1, 3.1 to 3.3, 6.2 and 6.3
- WL **C/AS1** 3.5.2 a), 3.5.3 a), 3.5.4 a), 3.5.6 c), 3.15.1 b), 3.15.3, 3.15.4, 3.18.1, 6.22.1, Figure 3.20, Tables 2.1, 3.1 to 3.3, 6.2 and 6.3
- WM **C/AS1** 3.5.2 a) to 3.5.4 a), 3.5.6 c), 3.15.1 b), 3.15.3, 3.15.4, 6.11.1, Figure 3.20, Tables 2.1, 3.1 to 3.3, 6.2 and 6.3

Q R

Q

Amend 12
Oct 2011

R

Radioactive substances

see **Hazardous Substances and Processes**, Class 7

Ramps **C/AS1** 3.1.4, 3.9.2, **D1/AS1** 1.3.1, 1.3.2, 3.0
 accessible ramps **D1/AS1** 3.1.3, 6.0.3 to 6.0.4, Figure 9
 slopes **D1/AS1** Table 3
 width **D1/AS1** 3.2
 intermediate landings **D1/AS1** 3.3.1, Table 5
 length **D1/AS1** 3.3.3
 width **D1/AS1** 3.3.2
 kerb ramps **D1/AS1** 3.4, Figure 10
 landings **D1/AS1** 3.3, Figure 25
 service ramps **D1/AS1** 3.1.2, Figure 8, Table 4
 slip resistance **D1/AS1** 3.1.4, Table 2
 slopes **D1/AS1** 3.1, 3.1.1

Amend 11
Sep 2010

Reflectances **G7/AS1** Table 2
 high **G7/AS1** 1.0.3, 1.0.4, Table 1
 medium **G7/AS1** 1.0.3, 1.0.4, Table 1

Refuge areas

see Fire safety precautions

Refuse

see **Solid waste**Amend 12
Oct 2011

Reinforcing steel **B1/AS1** 2.1, 3.1, **B1/AS3** 1.3.2 b) c), 1.4,
 1.6, 1.6.1, 1.6.2, 1.8.5, 2.2.1 a), Table 1

Relevant boundaries **C/AS1** 2.2.8, 5.3.2 a), 5.4.1 g), 5.7.6 a), 5.9.4 c), 7.1.2 d),
 7.3.1 b), 7.3.4 to 7.3.6, 7.3.9, 7.3.12 b), 7.3.15 a),
 7.4.2, 7.5 to 7.8, 7.10.5, 7.10.6, 7.11.4, Figures 7.3,
 7.7 to 7.9, Tables 7.1 to 7.5

Relief valve drains

see Cold water expansion valves, Temperature relief valves,
 Temperature/pressure relief valves

Retaining walls **F4/AS1** 1.2.5

Retirement villages

see Communal residential

Rodding points

see Maintenance access to drainsAmend 12
Oct 2011

Roof claddings **E2/AS1** 8.0
 general **E2/AS1** 8.1
 fixings **E2/AS1** 8.1.4, Tables 20-22
 gutters **E2/AS1** 8.1.6, Figure 20
 hidden gutters **E2/AS1** 8.1.6.2, Figures 27, 37, 50, 51
 internal gutters **E2/AS1** 8.1.6.1, Figures 52 and 63
 valley gutters **E2/AS1** 8.1.6.2, Table 8, Figures 27, 37, 50 and 51
 limitations **E2/AS1** 8.1.2
 maintenance **E2/AS1** 8.1.3
 projecting eaves **E2/AS1** 8.1.3.1

Amend 12
Oct 2011

Roof claddings (continued)

- Amend 12
Oct 2011 | roof penetrations **E2/AS1** 8.1.7, Tables 9 and 17, Figures 21 and 22, 29-31
- Amend 12
Oct 2011 | underlays **E2/AS1** 8.1.5, Table 23, Figure 25(b)
- underlay support **E2/AS1** 8.1.5.1
- weathertightness **E2/AS1** 8.1.1
- Roof/wall junctions **E2/AS1** 5.0
- apron flashings **E2/AS1** 5.1, Table 7, Figures 7, 8B and 35
- barges **E2/AS1** 5.2, Figure 8B
- fascias **E2/AS1** 5.2, Figure 8B
- Amend 12
Oct 2011 | gutters **E2/AS1** 5.2, Figure 8B
- soffits **E2/AS1** 5.3, Figures 8A and 114
- Roofs **C/AS1** 3.14.3, 3.14.4, 3.14.6 a), 3.16.7, 5.1.1 b), 6.12.1, 6.12.7, 6.18.5 c),
6.20.5, 6.20.11, 7.2.1 b), 7.8.1, 7.9.1 to 7.9.9, Figures 7.1 and 7.11;
- car parking and storage **C/AS1** 7.8.2, 7.9.16, 7.9.17
- eaves and projections (fire safety) **C/AS1** 2.2.8, 7.8.3 to 7.8.5
- exterior surface finishes **C/AS1** 7.11.1
- fire spread **C/AS1** 7.1.1, 7.9.1, 7.9.2
- fire venting **C/AS1** 4.2.4, 5.4.1 i), 5.5.3, 6.3.2 b), 7.8.10 a)
- open sided buildings **C/AS1** 7.8.8, 7.8.9, 7.8.10, Figure 7.10
- roof spaces **C/AS1** 6.12.8, 6.18.5 b) c), 6.18.7, 6.18.8, 6.18.10
- Rubbish chutes
see **Solid Waste**
- Run-off
- estimation of run-off **E1/VM1** 2.0
- Rational Method **E1/VM1** 2.0.1
- rainfall intensity **E1/VM1** 2.2, **E1/AS1** Appendix A
- run-off coefficient **E1/VM1** 2.1, Table 1
- slope correction **E1/VM1** 2.1.3, Table 2
- time of concentration **E1/VM1** 2.2.1, 2.3
- alternative procedure **E1/VM1** 2.3.6, 2.3.7
- catchment slopes **E1/VM1** 2.3.7
- open channel flow **E1/VM1** 2.3.5
- pipe flow **E1/VM1** 2.3.4, Table 1
- time of entry **E1/VM1** 2.3.2
- overland flow **E1/VM1** 2.3.2 b), Figure 1
- road channel flow **E1/VM1** 2.3.2 b), Figure 2
- time of network flow **E1/VM1** 2.3.3

S

S rating
see Fire resistance ratings

Safe paths **F7/AS1** 1.3.1, 1.3.4; **F8/AS1** 3.2.3 b)
see also Escape routes

Safe place **NZBC/F7.3, F8.3.3 (a); C/AS1** 3.1.1, 3.7.1, 3.16.4, 3.16.8, 6.1.1, 6.22.7,
 A2.1.1 Type 13 and Type 16

Safe trays
see Storage water heaters

Safe water temperatures
see **Water Supplies**, hot

Safety from Falling F4

	<i>see also</i> Barriers	
Amend 11 Sep 2010	accidental falls	NZBC/F4.2
	children	NZBC/F4.3.4 (f), F4/AS1 1.2.1, Figures 1–4
	gates	NZBC/F4.3.5 (a)
	impact of people	NZBC/F4.3.4 (d)
	low risk areas	F4/AS1 1.2.2
Amend 11 Sep 2010	pressure of people	NZBC/F4.3.4 (d)
	opening windows	F4/AS1 2.0
Amend 11 Sep 2010	provision of barriers	NZBC/F4.3.1
	retaining walls	F4/AS1 1.2.5
Amend 11 Sep 2010	roofs with permanent access	NZBC/F4.3.2
	seats on decks	F4/AS1 1.2.4, Figure 6
Amend 11 Sep 2010	swimming pools	NZBC/F4.3.3, F4.3.5
	fencing	F4/AS1 2.7

Safety of users

see **Hazardous Agents on Site, Hazardous Building Materials,
 Hazardous Substances and Processes, Safety from Falling, Construction
 and Demolition Hazards, Lighting for Emergency, Warning Systems, Signs**

Sanitary appliances **NZBC/G13.2; G12/AS1** 8.0.1, Table 1;
G13/AS1 1.0.2, 3.3.1, Table 2

washing machines **G13/AS1** Figure 2, Table 2

Sanitary fixtures **NZBC/E3.3.2 to E3.3.4, G1.3.1, G1.3.2, G12.2, G12.3.3, G12.3.5,
 G12.3.6 (b), G13.2; G12/AS1** 6.12.1, 6.14.2, Figure 20,
 Tables 1 and 3; **G13/AS1** 1.0.2, 3.3.1, Table 2

see also Basins, Bidets, **Personal Hygiene**, Showers, Urinals, WC pans

acceptable standards **G1/AS1** 2.6

access

pans **G1/AS1** 4.2.7

people with disabilities **G1/AS1** 1.2.2, 4.1

basins **G1/AS1** 3.3, Figure 9, Table 1

bidets **G1/AS1** 2.4

communal sanitary fixtures **G1/AS1** 3.4

construction and installation **G1/AS1** 2.0

locations **G1/AS1** 3.0, 4.2.1

non-flushing sanitary fixtures **G1/AS1** 5.0

privies **G1/AS1** 5.0.2

number of fixtures required **G1/AS1** 1.0, Figure 1, Tables 1 to 4

safe water temperatures **G12/AS1** 6.14.1, 6.14.2

sanitary towel disposal **G1/AS1** 1.1.5 b), 1.2, 1.2.2

showers **G1/AS1** 2.5, 4.2.3, 4.2.4, Figures 5 and 8, Table 2

soil fixtures **G1/AS1** 3.1.1, 3.2.1, 3.2.2, 3.3.1

see also WC pans

space dimensions **G1/AS1** 3.1, 4.2.2, 6.2.1, Figures 4 to 9

toilets

see WC pans

types of fixtures required **G1/AS1** 1.0, Tables 1 and 2

Sanitary fixtures (continued)

urinals.....	G1/AS1 2.3, 6.1.1, Table 1
bowl urinals.....	G1/AS1 2.3.1, 2.3.3, 2.3.5
continuous wall urinals.....	G1/AS1 2.3.1, Figure 3
discharge system.....	G1/AS1 2.3.2
flushing systems.....	G1/AS1 2.3.5 to 2.3.8, Table 5
manually operated.....	G1/AS1 2.3.8
stall urinals.....	G1/AS1 2.3.1, 2.3.5
surface finishes.....	G1/AS1 2.3.4
trough urinals.....	G1/AS1 2.3.1 to 2.3.3

Sanitation

see **Personal Hygiene**

Schools

see Communal non-residential

SDI

see Smoke developed index

Seating.....	C/AS1 2.3.5, 3.3.2 k), 3.3.6 c), 3.9.3, 3.9.4, 3.9.7 to 3.9.11, 3.16.5, 3.16.6, 6.5.1, Figures 3.13 to 3.15, Tables 2.2 and 3.4
open air auditoriums (purpose group CO).....	C/AS1 3.16.5, 3.16.6, 6.5.1

Seats on decks.....	F4/AS1 1.2.4, Figure 6
---------------------	-------------------------------

Security.....	NZBC/G14.3.2 (g); G14/VM1 1.9, G14/AS1 1.1
---------------	--

Amend 12
Oct 2011

Seismic resistance of engineering systems.....	B1/VM1 13.0
--	--------------------

Serviceability limit states

see **Structure**, limit states

Services and facilities

see **Personal Hygiene, Laundering, Food Preparation and Prevention of Contamination, Ventilation, Interior Environment, Airborne and Impact Sound, Natural Light, Artificial Light, Electricity, Piped Services, Gas as an Energy Source, Water Supply, Foul Water, Industrial Liquid Waste, Solid Waste**

Sewers

see **Foul Water**

SFI

see Spread of flame index

Sheds

see Outbuildings

Shops

see Commercial buildings

Showers.....	E3/AS1 3.2, 3.2.2, 3.3, Figures 4 and 5; G1/AS1 2.5, Figures 5 and 8, Table 2; G13/AS1 Table 2
--------------	---

Shrinkage

see **Structure**, loads

Signs.....	F8; NZBC/C2.3.3, D1.3.4 (a), D2.3.2 (d); C/AS1 3.3.6 a), 3.17.11 d), D1/AS1 1.1.1
escape routes.....	NZBC/F8.2 (a), F8.3.3 (a)
exit.....	F8/AS1 3.0
alternative exit.....	F8/AS1 3.2.3 b)
arrows.....	F8/AS1 3.2.2, 3.3.2, Figure 3
backgrounds.....	F8/AS1 3.3.3
colours.....	F8/AS1 2.1, 3.4, 3.5.3 a) b), 4.1.3, Table 3
illumination.....	F8/AS1 3.5
externally illuminated.....	F8/AS1 3.5.2
internally illuminated.....	F8/AS1 3.5.3
lighting supply.....	F8/AS1 3.5.5
self-luminous.....	F8/AS1 3.5.4
lettering.....	F8/AS1 3.3.1, Table 4
location.....	F8/AS1 3.1
no exit signs.....	F8/AS1 3.2.3 a)
wording.....	F8/AS1 3.2

Signs; escape routes (continued)

- fire safety..... **F8/AS1** 4.0, 6.4
- call points..... **F8/AS1** 4.1, Figure 4
- colours..... **F8/AS1** 4.1.3
- fire and smoke control doors..... **F8/AS1** 4.2
- lifts..... **F8/AS1** 6.4.1
- stairs for Fire Service personnel..... **F8/AS1** 6.4.3, Figures 12 and 13
- storage heights..... **F8/AS1** 6.4.2, Figure 11
- hazard signs..... **F8/AS1** 6.0
- dangerous goods..... **F8/AS1** 6.1
 - class 1..... **F8/AS1** 6.1.4
 - class 2..... **F8/AS1** 6.1.4
 - class 3..... **F8/AS1** 6.1.4
 - class 5..... **F8/AS1** 6.1.4
 - class 7..... **F8/AS1** 6.1.4
 - colour..... **F8/AS1** 6.1.4 a
 - radiation warning symbol..... **F8/AS1** 6.1.4 a), Figure 8
 - colour..... **F8/AS1** 6.1.3
 - layout..... **F8/AS1** 6.1.3
 - lettering..... **F8/AS1** 6.1.3, 6.1.4
 - location..... **F8/AS1** 6.1.4
- electrical hazards..... **F8/AS1** 6.2, Figure 9
- escalators and moving walks..... **F8/AS1** 6.6, Figure 15
- floor loadings..... **F8/AS1** 6.3
 - buildings..... **F8/AS1** 6.3.1, Figure 10
 - lifts..... **F8/AS1** 6.3.2
 - passenger lifts..... **F8/AS1** 6.3.2 a)
 - service lifts..... **F8/AS1** 6.3.2 b)
- hazardous substances and processes..... **NZBC/F8.3** (g)
- identification of hazards..... **NZBC/F8.2** (c), **F8.3.2**
- machine rooms..... **F8/AS1** 6.5, Figure 14
- non-potable water..... **F8/AS1** 6.7, Figure 16
- lighting for emergency..... **NZBC/F6.3.2**, **F8.3.3** (b)
- people with disabilities..... **NZBC/F8.2** (d), **F8.3.4**; **F8/AS1** 5.0
 - access symbol..... **F8/AS1** 5.0.2 c), Figure 6
 - layout..... **F8/AS1** 5.0.2, Figure 5
 - listening systems..... **F8/AS1** 5.0.3, Figure 7
- readability..... **NZBC/F8.3.1**
 - lettering type and proportions..... **F8/AS1** 1.0, Table 1
- safety..... **F8/AS1** 2.0, 3.2.1
 - caution..... **F8/AS1** 2.2.2, 6.1.2, 6.2.2, Figure 2
 - colours..... **F8/AS1** 2.1, Table 3
 - layout..... **F8/AS1** 2.2
 - prohibition and stop signs..... **F8/AS1** 2.2.1, 6.7.1, Figure 1
 - safe condition signs..... **F8/AS1** 2.2.3
 - safety symbols..... **F8/AS1** 2.3
- visibility..... **NZBC/F8.3.1**, **F8.3.3** (b)
- Single escape routes
see Escape routes
- Sinks..... **E3/AS1** 3.2.2, Figure 3; **G3/AS1** 1.1.5, **G13/AS1** Table 2
see also Basins, Cleaners' sinks, Kitchen sinks
- Site characteristics..... **B1/VM4** Appendix A
- Site investigation..... **B1/VM4** 3.5.1, 4.7.1, Appendix A; **F1/VM1** 1.0.3, 2.0, Figure 1
 - analysis..... **F1/VM1** 2.4
 - assessment..... **F1/VM1** 1.0.3, 2.5, Figure 2
 - detailed investigation..... **B1/VM4** A1.3; **F1/VM1** 1.0.2 c), 2.3
 - history and records..... **F1/VM1** 2.1
 - preliminary investigation..... **B1/VM4** A1.2; **F1/VM1** 1.0.2 b), 2.2
 - previous industrial use of site..... **F1/VM1** 2.1.1, Table 1
 - recording information..... **B1/VM4** A1.4
- Site specific considerations..... **B2/VM1** 1.2

- Siteworks
see Design, siteworks
- Slip resistance..... **D1/VM1** 1.0, **D1/AS1** 2.1, 3.1.4, 4.1.4 c), Table 2
- Slopes..... **D1/AS1** 1.2
 acceptable slopes..... **D1/AS1** 1.2.1, Figure 2
 changes in level..... **D1/AS1** 1.3, 1.3.1
 cross falls..... **D1/AS1** 1.2.2
- Slope stability..... **B1/VM4** 1.0.4
- Small chimneys
see Chimneys
- Smoke..... **NZBC/C3.3.1, C3.3.2, C3.3.4, C3.3.7, C3.3.8**
- Smoke alarms..... **F7/AS1** 3.1.1, 3.1.2
 alarm system..... **F7/AS1** 3.2.1, 3.2.2, 3.2.3, 3.2.4
 location..... **F7/AS1** 3.3.1, 3.3.2
 maintenance..... **F7/AS1** 3.4.1
- Smoke control..... **C/AS1** 3.11.9, 6.19.1, 6.19.12, 6.19.13, Table 6.1
 see also Fire safety precautions
 car parking..... **C/AS1** 6.10.4 b), 6.10.6
 doors
see Doors
 in air handling systems
see Fire safety precautions
 intermediate floors..... **C/AS1** 3.4.6 a), 3.9.13 d), 4.5.17, 4.5.18, 6.21.3, 6.21.4
 limited area atriums..... **C/AS1** 4.5.18, 6.21.4 b), 6.22.1, 6.22.7, 6.22.8, Figure 6.14, Table 6.4
 long corridors..... **C/AS1** 6.13.1, Figure 6.5
 mechanical smoke extract
see Fire safety precautions
 natural smoke venting
see Fire safety precautions
 pressurisation
see Fire safety precautions
 smoke reservoirs..... **C/AS1** 6.22.2 f), 6.22.5, 6.22.7 to 6.22.10, A2.1.1 Type 10 and Type 11, Figure 6.14, Table 6.4
 systems..... **C/AS1** 3.4.6 a), 3.4.8 d), 3.9.13 d), 4.5.17, 6.21.5, 6.23.3 a), A2.1.1 Type 9, Type 10 Type 11 Type 17, B1.1.1, B2.2.1 Step 2, B3.1.1
 ventilation..... **C/AS1** 3.14.7, 6.9.6 to 6.9.8, 6.10.6
 vertical safe paths..... **C/AS1** 6.9.11, Figure 6.1
- Smokecells..... **C/AS1** 3.4.6 b), 4.2.2, 6.1.2 a), 6.4.1, 6.9.1, 6.12.4
- Smoke detectors
see Fire safety precautions
- Smoke developed index (SDI)..... **C/AS1** 6.18.2 d), 6.20.3, 6.20.5, 6.20.7 c) d), C4.1.1 d), Table 6.2
- Smoke separations..... **C/AS1** 3.8.3 b), 3.11.1, 3.17.12 b), 6.1.2 c), 6.3.1, 6.6.4 b), 6.6.6 b), 6.9.6 e), 6.9.11, 6.10.1, 6.12.3, 6.12.4, 6.12.9, 6.13.1, 6.19.1, Table 6.1
 glazing..... **C/AS1** 5.8.9
 smoke seals..... **C/AS1** 6.12.9, 6.19.2 b), 6.19.4
- Smoke spread
see Smoke control
- Snow
see **Structure**, loads

Amend 11
Sep 2010

Index

NEW ZEALAND BUILDING CODE HANDBOOK

- Socket outlets
see **Electricity**, people with disabilities
- Soil fixtures **G1/AS1** 3.1.1, 3.2.1, 3.2.2, 3.3.1
see also WC pans
- Soil properties **B1/VM4** 1.0.5, 2.0.6, 2.0.7, Appendix A
- Soil shrinkage and expansion **B1/VM4** 3.1.2, 3.4.3, A1.2.1
- Soils
adverse moisture conditions **B1/VM4** 1.0.2
- Solar water heaters **G12**
installation **G12/AS2** 5.0
pipe installation **G12/AS2** 5.3
pipe insulation **G12/AS2** 5.4
weathertightness **G12/AS2** 5.2, Table 4, Figures 2–9
wetback water heaters **G12/AS2** 5.1
location **G12/AS2** 4.0, 4.1
solar orientation and inclination **G12/AS2** 4.2, Figure 2
maintenance and durability **G12/AS2** 7.0
durability **G12/AS2** 7.2
maintenance **G12/AS2** 7.1
materials **G12/AS2** 2.0
material selection **G12/AS2** 2.1, Tables 1, 2 and 3
requirements **G12/AS2** 3.0
operating and safety devices **G12/AS2** 3.4
protection from frosts **G12/AS2** 3.6, Figure 1
protection from Legionella bacteria **G12/AS2** 3.5
sizing of systems **G12/AS2** 3.3
solar controller **G12/AS2** 3.2
solar water heaters and components **G12/AS2** 3.1.1
scope **G12/AS2** 1.0
exclusions **G12/AS2** 1.2
structural support limitations **G12/AS2** 1.1
structural support **G12/AS2** 6.0
collector support rails **G12/AS2** 6.5, Figures 17 and 18
elevated solar collectors parallel to the roof **G12/AS2** 6.4, Figures 14–16
general requirements **G12/AS2** 6.2, Figures 10–13
mounting collectors at different pitch to roof cladding **G12/AS2** 6.6,
Figures 19 and 20
scope **G12/AS2** 6.1
- Solid fuel appliances
domestic **B1/AS3** 2.0
installation **C/AS1** 9.1
seismic restraint **C/AS1** 9.1.2
- Solid plastering **B2/AS1** 3.3
- Solid Waste** **G15**
chutes **C/AS1** 3.12.1, 6.16.5, 6.16.6
collection **NZBC/G15.2**, **G15.3.1**
holding **NZBC/G15.2**, **G15.3.1**
sewer **NZBC/G15.3.3**
storage **C/AS1** 3.12.1, **G15/AS1** 1.0.1, 3.0, Figure 1
alternative solution **G15/AS1** 3.1
capacity **G15/AS1** 1.0.1
location **G15/AS1** 2.0.1
floors **G15/AS1** 3.0.2
walls **G15/AS1** 3.0.3
water supply **G15/AS1** 3.0.7
windows **G15/AS1** 3.0.4, 3.0.6
space required **G15/AS1** 1.0.2
vehicle access **G15/AS1** 3.0.10
ventilation **G15/AS1** 1.0.3, 3.0.8, 3.0.9
temperature **NZBC/G15.3.1** (d)
waste disposal units **NZBC/G15.3.3**

Amend 11
Sep 2010

- waste (rubbish) chutes **NZBC/G15.3.2; G15/AS1 4.0**, Figure 2
 cleaning **G15/AS1 4.0.3**
 odours **NZBC/G15.3.2 (d)**
 restricted access **NZBC/G15.3.2 (g)**
 spread of fire **NZBC/G15.3.2 (e)**
- Sound insulation tests
 see **Airborne and Impact Sound**
- Sound transmission class (STC)
 see **Airborne and Impact Sound**
- Spandrels **C/AS1 7.1.2 e)**, 7.9.12, 7.9.13, Figure 7.2
- Specified intended life
 see **Durability**
- Spread of Fire
 automatic fire suppression systems **NZBC/C3.3.6**
 see also Fire safety precautions
 automatic smoke control systems **NZBC/C3.3.8**
 see also Smoke control
 concealed spaces **NZBC/C3.3.4**
 protect adjacent property **NZBC/C3.1 (c)**, **C3.2 (c)**
 resistant to spread of fire **NZBC/C2.3.3**, **C3.3.1**
 rubbish chutes **NZBC/G15.3.2**
 safeguard the environment **NZBC/C3.1 (d)**, **C3.2 (d)**
 safety while evacuating **NZBC/C3.1 (a)**
 see also **Means of Escape**
- Amend 11 | Spread of flame index (SFI) **C/AS1 6.18.2 d)**, 6.20.3, 6.20.5, 6.20.7 c) d),
 Sep 2010 | **C4.1.1 b)**, Table 6.2
- Sprinklers
 see Fire safety precautions
- Stability
 see Fire resistance ratings, **Structure**
- Stadiums
 see Communal non-residential
- Staircase
 see Stairways
- Stairs
 see Stairways
- Stairs and ladders **C/AS1 3.1.4**, 3.4.1 a), 3.4.7, 3.9.14, 3.15.9, Figures 3.6, 3.10 and 3.21
 curved and spiral stairs **C/AS1 3.3.5**, 3.4.7 a) b)
 external stairways **C/AS1 3.14.6 c)**, 3.14.7, 3.15.4, 3.15.7, Figures 3.22 and 3.23
 stairways **C/AS1 3.3.3**, 3.3.4, 3.3.6 b), 3.4.5, 3.11.8, 3.12.3, 3.15.6, 5.8.2 c),
 6.9.3, 6.9.10, 7.5.7
- Stairways **NZBC/D1.3.2 (f) to (i)**, **D1.3.4 (g) (h)**; **D1/AS1 4.0**
 see also **Access Routes**, accessible routes and ladders
 accessible stairs **D1/AS1 4.1.7**, 4.1.8 b), 4.2.1,
 6.0.1 to 6.0.4, Figure 11, Tables 6 to 8
 common stairs **D1/AS1 4.1.8**, 4.2.1, Figure 11, Tables 6 to 8
 curved stairs **D1/AS1 4.1.3**, 4.4, Figure 17
 landings **D1/AS1 4.3**, 4.3.1, 4.3.6 c), 4.6.2 c), Figures 14 and 25
 direction changes **D1/AS1** Figure 16
 length **D1/AS1 4.3.4**, 4.3.6 c)
 maximum rise **D1/AS1 4.3.2**, Table 7
 obstructions **D1/AS1 4.3.5**, Figure 15
 width **D1/AS1 4.3.3**
 lighting **D1/AS1 4.6**, 4.6.2, Table 8
 pitch **D1/AS1 4.1**, Figure 11, Table 6
 pitch lines **D1/AS1 4.1.3**, 4.4.1, 4.4.2, 4.5.1, 4.5.2

- private stairs **D1/AS1** 4.6.2, Figure 11, Tables 6 and 8
 - main **D1/AS1** Figure 11, Table 6
 - minor **D1/AS1** 4.5.1, Figure 11, Table 6
 - risers **D1/AS1** 4.1, 4.1.2, 4.1.3, 4.1.8, 4.4.2, 4.5.1, Figures 11 and 12, Table 6
 - secondary **D1/AS1** 4.5.1, Figure 11, Table 6
- service stairs **D1/AS1** 4.5.1, Figure 11, Tables 6 and 8
- slip resistance **D1/AS1** 4.1.4 c), Table 2
- spiral stairs **D1/AS1** 4.1.3, 4.4.1
- treads **D1/AS1** 4.1, 4.1.2 to 4.1.7, 4.5.1, 4.6, Figures 11 to 13, Table 6
 - tapered treads **D1/AS1** 4.4, Figure 17
- visibility **D1/AS1** 4.3.6, 4.6, Table 8; **G8/AS1** 1.0.3
- width **D1/AS1** 4.2, 4.2.1, 4.4.1, 4.5.2, 4.5.3, 6.0.1
- winders **D1/AS1** 4.5, Figure 18
- Standard test
 - see Test methods
- Steel
 - see Design, steel
- Storage water heaters **NZBC/H1.3.4**; **G12/AS1** 6.2, 6.3.1, 6.6.3, 6.6.5, 6.7.2, 6.6.4, 6.8 to 6.11, Table 5; **H1/AS1** 5.0
 - see also Water heaters
 - drain pipes **G12/AS1** 6.11.3 c)
 - open vented **G12/AS1** 6.3.2, Figures 6 and 7
 - free outlet type **G12/AS1** 6.1.2, 6.4.2
 - mains pressure supply **G12/AS1** 6.2.1, Figure 8, Table 5
 - tank supply **G12/AS1** 6.1.1, Figure 6, Table 5
 - safe trays **G12/AS1** 5.2.3, 6.11.3
 - seismic restraint **G12/AS1** 6.11.5, Figure 4
 - unvented
 - see Storage water heaters, valve vented
 - valve vented **G12/AS1** 6.3 to 6.7, Figure 8
- Storage water tanks
 - see Tanks
- Strainers (filters) **G12/AS1** 6.2.3
- Structural fire endurance rating (S)
 - see Fire resistance ratings
- Structural integrity
 - see **Structure, Structural Stability During Fire**
- Structural Stability During Fire**
 - consequential collapse **NZBC/C4.3.3**
 - fire hazards **NZBC/C4.3.1**
 - fire intensity **NZBC/C4.3.1**
 - fire load **NZBC/C4.3.1**
 - fire resistance **NZBC/C4.3.1, C4.3.2, C4.3.3**
- Structural stability
 - see Fire resistance ratings
- Structure** **B1**
 - building instability **NZBC/B1.1**
 - collapse **NZBC/B1.2**
 - damage **NZBC/B1.2**
 - deflections **NZBC/B1.2**
 - demolition **NZBC/B1.3.6**
 - design
 - concrete **B1/VM1** 3.0
 - drains
 - see Drains
 - foundations
 - see Foundations
 - loadings **B1/VM1** 2.0
 - earthquake **B1/AS3** 1.9, Table 2
 - limit state **B1/VM1** 2.2.4, 7.1

Amend 11
Sep 2010

Amend 11
Sep 2010

Structure (continued)

masonry	B1/VM1 4.0, B1/AS1 2.0, B1/AS3 1.3.3
siteworks	B1/VM1 10.0
steel	B1/VM1 5.0
strength reduction factor	B1/VM4 2.0.1, 3.5.1, 4.7, Tables 1 and 4
timber	B1/VM1 6.0, B1/AS1 3.0
<i>see also</i> Timber barriers	
windows	
<i>see</i> Windows	
failure	NZBC/B1.1
limit states	
serviceability limit state	NZBC/B1.3.1, B1.3.2, B1.3.5
ultimate limit state	NZBC/B1.3.1, B1.3.2, B1.3.5
loads	NZBC/B1.2, B1.3.3
creep	NZBC/B1.3.3
cyclic loads	NZBC/B1.3.3
differential movement	NZBC/B1.3.3
dynamic loads	NZBC/B1.3.3
earth pressure	NZBC/B1.3.3
earthquake	NZBC/B1.3.3
seismic resistance of building services	B1/VM1 14.0
explosion	NZBC/B1.3.3
liquid	NZBC/B1.3.3
shrinkage	NZBC/B1.3.3
snow	NZBC/B1.3.3
wind	NZBC/B1.3.3
sitework	NZBC/B1.3.6, B1.3.7
stability	NZBC/B1.3.6, B2.3.1; D1/AS1 1.6
tanks	G12/AS1 5.2.7, Figure 4
seismic restraint	G14/VM1 2.3.2
temporary support	NZBC/B1.3.5
vibrations	NZBC/B1.2

Stucco	B1/AS1 5.0, E2/AS1 9.3
bottom of stucco	E2/AS1 9.3.8, Figure 75

Amend 12
Oct 2011

finishes	E2/AS1 9.3.7
installation	E2/AS1 9.3.4
general	E2/AS1 9.3.4.1
movement control joints	E2/AS1 9.3.4.2
limitations	E2/AS1 9.3.1, Figure 74

Amend 12
Oct 2011

non-rigid plaster backings	E2/AS1 9.3.5
installation of wall underlays	E2/AS1 9.3.5.1, Table 23

Amend 12
Oct 2011

rigid plaster backings	E2/AS1 9.3.6
fibre cement sheet backing	E2/AS1 9.3.6.2
plywood backing	E2/AS1 9.3.6.1
parapets and enclosed balustrades	E2/AS1 9.3.9

Amend 12
Oct 2011

structure	E2/AS1 9.3.2
-----------------	---------------------

Amend 12
Oct 2011

stucco cladding system	E2/AS1 9.3.3, Tables 23 and 24, Figure 74
windows and doors	E2/AS1 9.3.10, Figure 76

Subsidence	B1/VM4 A1.2.1 (a)
------------------	--------------------------

Suites

see Firecells

Surface finishes	C/AS1 6.1.2 e), 6.20, Tables 6.2 and 6.3
ceilings	C/AS1 6.20.3, 6.20.5, 6.20.6, 6.20.11, 6.20.15 a)
exceptions	C/AS1 6.20.4
exterior surfaces	C/AS1 7.1.2 c), 7.8.6, 7.11
flooring and floor coverings	C/AS1 6.20.8 to 6.20.10, 6.20.14, C2.1
wharehau	C/AS1 3.3.2 h), 3.4.2 e), Table 2.2

Surface Water	E1
<i>see also</i> Run-off, drains	
2% probability storm	
{50 year return period}	NZBC/E1.3.1
10% probability storm	
{10 year return period}	NZBC/E1.3.2
drainage systems	NZBC/E1.3.3
Suspended flexible fabrics	C/AS1 6.20.1, 6.20.16 to 6.20.19, C3.1, Table 6.2
Swimming pools	
<i>see</i> Safety from Falling	

T

	Tanks	
Amend 11 Sep 2010	industrial liquid waste	G14/VM1 1.4.1 b), 1.4.2, 3.0
	seismic restraint	G14/VM1 3.2.1
	water tanks	G12/AS1 5.2, 6.2.1
	access	G12/AS1 5.2.5, Figure 4
	covers	G12/AS1 5.2.4
	location	G12/AS1 5.2.1
	overflow pipes	G12/AS1 5.2.2, Figure 4
Amend 11 Sep 2010	safe trays	G12/AS1 5.2.3, Figure 4
	seismic restraint	G12/AS1 5.2.7, Figure 4
	structural support	G12/AS1 5.2.7, Figure 4
	water storage tanks	G12/AS1 5.1
	Taverns	
	<i>see</i> Communal non-residential	
	Temperature	
	<i>see</i> Electricity, Energy Efficiency, Interior Environment, Outbreak of Fire, Piped Services, Solid Waste, Structure, load, Water Supplies	
	Temperature control	
	<i>see</i> Interior Environment , interior temperature	
	Temperature/pressure relief valves	G12/AS1 6.4.1, Figure 8, Table 6
	installation	G12/AS1 6.6.5
	relief valve drains	G12/AS1 6.7, Figures 12 and 13
	Test methods	C/AS1 Appendix C
	fire properties of external wall cladding systems	C/AS1 C8.1
	fire resistance	C/AS1 C6.1
Amend 11 Sep 2010	fire resisting closures	C/AS1 C7.1
	flame barriers	C/AS1 C9.1
Amend 11 Sep 2010	flammability of floor coverings	C/AS1 C2.1
	flammability of membrane structures	C/AS1 C3.1
	flammability of suspended flexible fabrics	C/AS1 C3.1
Amend 11 Sep 2010	non-combustibility of materials	C/AS1 C5.1
	properties of lining materials	C/AS1 C4.1
	Theatres	NZBC/G5.3.5
	<i>see also</i> Communal non-residential	
	Thermal break	E3/AS1 1.1.4 d)
	Thermal resistance (R-value)	E3/AS1 1.1; H1/VM1 1.4, H1/AS1 2.1.1, 2.2, 2.3
	alternative solution	E3/AS1 1.1.5
	materials and installation	E3/AS1 1.1.3
	Thermostats	G12/AS1 6.3.1, 6.5.1
	Thresholds	D1/AS1 1.3.2
	Timber	B2/AS1 3.2
	<i>see also</i> Design, timber, Timber weatherboards	

Amend 12 Oct 2011	Timber barriers.....	B1/AS2 1.0
	<i>see also</i> Barriers and Safety from Falling	
Amend 12 Oct 2011	Timber weatherboards.....	E2/AS1 9.4
	finishes.....	E2/AS1 9.4.9
	horizontal weatherboards.....	E2/AS1 9.4.1.3, 9.4.4
	external corners.....	E2/AS1 9.4.4.4, Figures 77 and 78
	fixings.....	E2/AS1 9.4.4.3, Table 24
	horizontal laps.....	E2/AS1 9.4.4.1
	internal corners.....	E2/AS1 9.4.4.5, Figure 79
	joints.....	E2/AS1 9.4.4.2
	installation.....	E2/AS1 9.4.3, Table 23
	fixings.....	E2/AS1 9.4.3.1, Tables 20 and 24
	limitations.....	E2/AS1 9.4.1
	horizontal weatherboards.....	E2/AS1 9.4.1.3, Table 3
	vertical weatherboards.....	E2/AS1 9.4.1.2, Table 3
	weatherboard profiles.....	E2/AS1 9.4.1.1
	materials.....	E2/AS1 9.4.2, Table 23
Amend 12 Oct 2011	parapets and enclosed balustrades.....	E2/AS1 9.4.8
	vertical weatherboards.....	E2/AS1 9.4.1.2, 9.4.5
	corners (external and internal).....	E2/AS1 9.4.5.3, Table 7, Figures 79 and 80
	fixings.....	E2/AS1 9.4.5.2, Table 24
	laps.....	E2/AS1 9.4.5.1
	windows and doors in cavity walls.....	E2/AS1 9.4.7, Figures 17C, 85 and 86
Amend 12 Oct 2011	windows and doors in direct fixed weatherboards.....	E2/AS1 9.4.6, Figures 17D, 81-84
	Time-share accommodation	
	<i>see</i> Communal residential	
	Toilets	
	<i>see</i> Personal Hygiene, WC Pans	
	Toxic substances	
	<i>see</i> Hazardous Substances and Processes, Class 6	
	Transport terminals	
	<i>see</i> Commercial buildings	
	Travel distance.....	NZBC/C2.3.1 (d), C2.3.2, C3.3.1 (a)
	Tunnels	
	<i>see</i> Ancillary buildings	
	Turnstiles	
	<i>see</i> Doors	

U

- Ultimate limit states
see **Structure**, limit states
- Universities
see Communal non-residential
- Unprotected areas **C/AS1** 3.14.3, 3.14.6, 5.1.1 b), 7.1.2 d), 7.3, 7.4.1 a),
7.4.2, 7.5.2 to 7.5.6, 7.5.8, 7.6.4, 7.7.1, 7.7.3, 7.7.5,
Step 2 and Step 3, 7.8.9, 7.8.10 c), 7.9.10, 7.9.11,
7.9.13, Figures 7.3 to 7.5, Tables 7.2 to 7.4
- fire resisting glazing (Type B) **C/AS1** 5.8.2 a), 7.4.1 a),
7.4.2 to 7.4.4, Figure 7.4, Table 7.1
- small openings (Type A) **C/AS1** 7.4.1 a), 7.4.2, 7.4.4, Figure 7.4
- uPVC pipe **G13/AS3** 1.0
- Urinals **E3/AS1** 3.3, 3.3.6; **G1/AS1** 2.3, 6.1.1, Table 1; **G13/AS1** Table 2
- bowl urinals **G1/AS1** 2.3.1, 2.3.3, 2.3.5
- continuous wall urinals **G1/AS1** 2.3.1, Figure 3
- discharge system **G1/AS1** 2.3.2
- flushing systems **G1/AS1** 2.3.5 to 2.3.8, Table 5
- manually operated **G1/AS1** 2.3.8
- stall urinals **G1/AS1** 2.3.1, 2.3.5
- surface finishes **G1/AS1** 2.3.4
- trough urinals **G1/AS1** 2.3.1 to 2.3.3
- Utensil washing **G3/AS1** 1.1.1

V

	Vacuum relief valves	G12/AS1 Table 6
	Vehicles.....	NZBC/D1.1, D1.2.2, D1.3.1 (d) (e), D1.3.5, G14.3.2 (b); D1/AS1 10.0, G14/VM1 1.8, 2.1.5; G15/AS1 3.0.10
Amend 11 Sep 2010	access	G14/VM1 1.8, 2.1.5
	car parking areas	D1/AS1 10.1
	accessible car parking spaces.....	D1/AS1 10.1, 10.2.1
	commercial vehicles.....	D1/AS1 11.0.2
	loading spaces.....	D1/AS1 11.0.2
	Vent pipes	G12/AS1 6.3.2, 6.8; G13/AS1 5.2, Figures 5 to 8, 10 and 12, Table 5; G13/AS2 Figures 5 and 6
	diameter	G12/AS1 6.8.2, G13/AS1 Table 6
	fixture vent pipes	G13/AS1 5.2, Figures 5 to 8, 10 and 11, Tables 5 and 6
	gradient	G13/AS1 5.4
	height.....	G12/AS1 6.8.2 d)
	installation	G12/AS1 6.9.1; G13/AS1 5.5 to 5.7, Figures 5 to 8, 10 and 11
	insulation	G12/AS1 6.8.3
	relief vent pipes.....	G13/AS1 5.6, Figure 7
	termination	G12/AS1 6.8.2 c); G13/AS1 5.7.3, Figure 12
Amend 11 Sep 2010	Ventilation	G4; NZBC/H1.3.1 (b); C/AS1 6.9.6; E3/AS1 1.0.1, 1.2;
	airflow control	NZBC/H1.3.1 (b); H1/AS1 3.0, G4/AS1 1.5.1 b)
	air handling systems	G4/AS1 1.3.1 b)
	air purity.....	NZBC/G4.3.1; G4/VM1 2.0
	bacteria, pathogens and allergens	NZBC/G4.3.2
	balconies, bridges and open stairways.....	C/AS1 3.14.7
	car park.....	G4/AS1 1.5.4
	combined natural and mechanical	G4/AS1 1.4
Amend 11 Sep 2010	contaminated air	
	discharge systems	G4/AS1 1.5.1 f)
	disposal	NZBC/G4.3.4
	removal	NZBC/G4.3.3
	cross-ventilation for car parking.....	C/AS1 6.10.4, 6.10.6
Amend 11 Sep 2010	drains	G13/AS2 4.0, Figures 4 to 6, Table 3
	extract ventilation.....	G4/AS1 1.5.1 c)
	fixed combustion appliances	NZBC/G4.3.5
	flues.....	G4/AS1 2.3, 2.4
	gas burning appliances.....	C/AS1 9.2.2
	gas-fuel appliances	G4/AS1 2.0
	another solution.....	G4/AS1 3.0
	draught diverters	G4/AS1 2.3.2
	flue construction.....	G4/AS1 2.3
	flue location on dwellings.....	G4/AS1 2.4
Amend 11 Sep 2010	mechanical ventilation.....	G4/AS1 2.2
	natural ventilation	G4/AS1 2.1
	maximum occupancy	NZBC/G4.2
	mechanical ventilation systems.....	NZBC/C3.3.7, G4.3.2; G4/AS1 1.5, 2.2
Amend 11 Sep 2010	natural	G4/AS1 1.1, 1.2, 1.3, 2.1
	household units and accommodation units with one external wall	G4/AS1 1.3
	natural smoke ventilation	
	see Fire safety precautions	
	number of air changes	NZBC/G4.3.1
	oil fired appliances.....	C/AS1 9.3.2
Amend 11 Sep 2010	outdoor air supply.....	NZBC/G4.3.1; G4/AS1 1.5.1 a) d)
	passive stack ventilators.....	G4/AS1 1.3.7
	positive and negative pressure	G4/AS1 1.5.5
	prevention of internal moisture	NZBC/E3.3.1
Amend 11 Sep 2010	rate	G4/VM1 1.0.1
	recirculated air systems	G4/AS1 1.5.1 e)
	safe paths	C/AS1 6.9.6 to 6.9.10
	solid fuel appliances.....	C/AS1 9.1.2
Amend 11 Sep 2010	trickle ventilators.....	G4/AS1 1.3.9
	ventilation rate.....	G4/VM1 1.0

Vermin-proofing	E2/AS1 9.1.8.3
Vibrations	
<i>see</i> Structure	
Visibility in Escape Routes	F6/AS1
duration	F6/AS1 1.6
documentation	F6/AS1 1.7
equipment	F6/AS1 1.8
illuminance	F6/AS1 1.3
installation	F6/AS1 1.8
location	F6/AS1 1.2
maintenance	F6/AS1 1.8
method of measurement	F6/AS1 1.4
modifications to AS 2293.1: 2005 and AS 2293.3: 2005	F6/AS1 Appendix B
modifications to NZS 6104	F6/AS1 Appendix C
light output	F6/AS1 1.5
scope	F6/AS1 1.1
start-up	F6/AS1 1.5

Amend 11
Sep 2010

W

Walls	NZBC/B2.3.1 (a), C3.3.1, C3.3.5, E2.3.2, E2.3.3, E3.3.4, E3.3.5, G6.3.1; C/AS1 5.3.1, 5.7.2, 6.10.6, 6.12.1, 6.12.6, 6.16.2, 6.18.5 c), 6.20.3, 6.20.4 d) f), 6.20.5, 6.20.6, 6.20.11, 6.20.15 a), 7.8.9, 7.9.5, 7.9.18, Table 6.2;
cavities and concealed spaces	C/AS1 6.18.4, Figures 6.11 and 6.12
curtain walls	C/AS1 6.18.4, 7.9.14, Figure 6.11
external walls	NZBC/E2.3.2
<i>see also</i> Unprotected areas	
floor/wall junctions	G6/AS1 1.0.3, Figure 5
internal/external wall junctions	G6/AS1 1.0.3, Figure 4
surface finishes	NZBC/C3.3.1
theatre proscenium walls	C/AS1 6.3.1, 6.3.2 f), 6.19.9, 6.19.10, 6.19.11, Figure 6.13
wall assemblies	G6/AS1 1.0.3, Figure 2
Wall/Roof junctions	
<i>see</i> Roof/wall junctions	
Wall claddings	E2/AS1 3.3, 9.0
air seals	E2/AS1 9.1.6, Figure 81
barriers to airflow	E2/AS1 9.1.4, Table 23
bottom of cladding	E2/AS1 9.1.3, Tables 7 and 18, Figure 65
concrete slabs	E2/AS1 9.1.3.1, Figure 65
concrete ground slabs (except masonry veneer)	E2/AS1 9.1.3.3, Table 18
garages and openings to garages	E2/AS1 9.1.3.4, Tables 18 and 23, Figure 65
masonry veneer clearances	E2/AS1 9.1.3.2, Table 18, Figure 73D
timber floor framing	E2/AS1 9.1.3.5, Table 18
drained cavities	E2/AS1 9.1.8
cavity battens	E2/AS1 9.1.8.4
limitations	E2/AS1 9.1.8.1
requirements	E2/AS1 9.1.8.2, Table 23, Figures 66 and 67
vermin-proofing	E2/AS1 9.1.8.3, Figure 66
wall framing behind cavities	E2/AS1 9.1.8.5
general	E2/AS1 9.1
limitations	E2/AS1 9.1.1, Table 3
maintenance	E2/AS1 9.1.2
penetrations	E2/AS1 9.1.9
inter-storey junctions	E2/AS1 9.1.9.4, Figure 70
other cavity penetrations	E2/AS1 9.1.9.2
penetrations through cavities	E2/AS1 9.1.9.1
pipes and service penetrations	E2/AS1 9.1.9.3, Figures 68 and 69
wall underlay	E2/AS1 9.1.7, Tables 3 and 23
wall underlays to wall openings	E2/AS1 9.1.5, Figures 72A and 72B

Amend 12
Oct 2011

Amend 12
Oct 2011

Amend 12
Oct 2011

- Wall claddings (continued)
- Amend 12 Oct 2011 | windows and doors **E2/AS1** 9.1.10
 - | attachments **E2/AS1** 9.10.8
 - | closed cell foam tape **E2/AS1** 9.1.10.7
 - Amend 12 Oct 2011 | head flashings **E2/AS1** 9.1.10.4, Table 7, Figures 66 and 71
 - | scope **E2/AS1** 9.1.10.1
 - | treatment of opening **E2/AS1** 9.1.10.2, Figures 72A, 72B, 116, Tables 7 and 20
 - | window and door heads **E2/AS1** 9.1.10.3, Figure 71
 - Amend 12 Oct 2011 | window and door jambs **E2/AS1** 9.1.10.6
 - | window sills **E2/AS1** 9.1.10.5, Figures 17C and 17D
- Warehouses
see Industrial buildings
- Warning Systems** **F7**
see also Alarm systems
combined fire detection and warning system **NZBC/F7.3**
- Wash-down areas **G3/AS1** 2.3
- Washing machines
see Sanitary appliances
- Waste chutes
see **Solid Waste**
- Waste disposal units **NZBC/G15.3.3; G13/AS1** Figure 2, Table 2
- Waste pipes
see Discharge pipes, Pipes
- Water
see **External Moisture, Foul Water, Internal Moisture, Surface Water, Water Supplies**
- Water heaters **G12/AS1** 6.1, Table 5
installation **G12/AS1** 6.11
instantaneous water heaters **G12/AS1** 6.1.1,
solar water heaters **G12/AS1** 6.1.1, 6.15, Table 5
storage water heaters
see Storage water heaters
wet back water heaters **G12/AS1** 6.13, Figure 15
- Water main **G12/AS1** 3.1.1, 3.2.1 b), 5.1.1
- Water seals **G1/AS1** 2.1.1 c), Figure 2; **G13/AS1** 1.0.3, 3.2.1, Figure 1, Table 1,
G13/AS2 3.3.1 d)
- Water splash **E3/AS1** 3.0
basins **E3/AS1** 3.2.2, Figure 3
baths **E3/AS1** 3.2.2, Figure 3
lining materials **E3/AS1** 3.1, Figure 1
joints in linings **E3/AS1** 3.2, Figure 2
showers **E3/AS1** 3.3.1 to 3.3.5, Figures 4 and 5
sinks **E3/AS1** 3.2.2, Figure 3
tubs **E3/AS1** 3.2.2, Figure 3
urinals **E3/AS1** 3.3.6
- Water Supplies** **G12**
access for maintenance **NZBC/G12.3.6 (d)**
backflow prevention devices **NZBC/G12.3.6 (e)**
cold **G3/AS1** 1.1.4
drinking water **NZBC/G12.2**
energy efficiency **NZBC/H1.2, H1.3.4**
hot **G3/AS1** 1.1.4, Figure 1; **G12/AS1** 6.0
mixing devices
tempering valves **G12/AS1** 6.14.2, Figure 16
pipe sizes **G12/AS1** 6.12, Table 4
safe water temperatures **G12/AS1** 6.14
isolation of system **NZBC/G12.3.6 (e)**
leakage **NZBC/G12.3.6 (c)**
laundries **G2/AS1** 1.1.1, 1.1.2
mains **G12/AS1** 3.1.1, 3.2.1 b), 5.1.1

Amend 11
Sep 2010 |

- Wheelchairs **D1/AS1 7.0.1**
see also People with disabilities, Accessible routes
spaces for wheelchairs **D1/AS1 8.1, 8.1.2, Figure 30**
wheelchair access **NZBC/D1.3.4 (b) (d) (e)**
- Wind
see **Structure**, loads
- Amend 12
Oct 2011 | Windows and doors **B1/VM1 12.0; C/AS1 3.1.4, 6.20.4 c); E2/AS1 9.1.10, 9.2.10, 9.3.10,**
9.5.4, 9.6.8.6, 9.6.9.7, 9.7.6, 9.8.8, 9.9.9; **E3/AS1 1.3.1;**
Amend 11
Sep 2010 | **G7/AS1 1.0.1 to 1.0.3, 2.0.1,**
Figures 1 and 2; **G15/AS1 3.0.4, 3.0.6**
see also **Natural Light**
closed cell foam tape **E2/AS1 9.1.10.7**
fire windows
see Glazing
glazing **B1/AS1 7.0**
head flashings **E2/AS1 9.1.10.4, Table 7, Figures 66 and 71**
Amend 12
Oct 2011 | scope **E2/AS1 9.1.10.1**
treatment of opening **E2/AS1 9.1.10.2, Figures 72A, 72B and 116, Tables 7 and 20**
used for escape **C/AS1 3.3.6 d), 3.18, 6.20.6 b), Figure 3.32**
vertical profile; windows and doors **E2/AS1 9.6.8.6, Figures 95 and 100**
window and door heads **E2/AS1 9.1.10.3, Figure 71**
windows and doors in cavity walls **E2/AS1 9.4.7, 9.5.4.2, 9.8.8.2, 9.9.9,**
Figures 85, 86, 91, 116 and 128
windows and doors in direct fixed weatherboards **E2/AS1 9.4.6, 9.5.4.1, 9.8.8.1,**
9.9.9, Figures 81-84,
90, 115 and 127
Amend 12
Oct 2011 | window and door jambs **E2/AS1 9.1.10.6, Table 7**
window and door sills **E2/AS1 9.1.10.5, Figures 17C and 17D**
Work camps **NZBC/G2.2, G3.2.1, G3.3.1 (a) to (d);**
G2/AS1 Table 1; G3/AS1 1.0.1
see also Communal residential, community service