Document Status

The most recent version of this document (Amendment 13), as detailed in the Document History, is approved by the Chief Executive of the Ministry of Business, Innovation and Employment. It is effective from 14 February 2014 and supersedes all previous versions of this document.

The previous version of this document (Amendment 12) will cease to have effect on 14 August 2014.

People using this document should check for amendments on a regular basis. The Ministry of Business, Innovation and Employment may amend any part of this handbook at any time. Up-to-date versions of this handbook are available from www.dbh.govt.nz

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Note: Page numbers relate to the document at the time of Amendment and may not match page numbers in current document.
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, protection from fire, 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.
• Owners, designers, builders and building consent authorities each need to be accountable for their role in obtaining consents and approvals, ensuring plans and specifications for building work will meet the Building Code, and ensuring work complies with the building consent or, where a building consent is not required, complies with the Building Code.

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.


- 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


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


13. Building Practitioners (Register of Licensed Building Practitioners) Regulations 2008


15. Building Practitioners (Complaints and Disciplinary Procedures) Regulations 2008


17. Building (Building Consent Authority Transition) Order 2008

18. Building (National Multiple-use Approval) 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

25. Building (Definition of Restricted Building Work) Order 2011


Note: these regulations can be found at www.legislation.govt.nz
2.3 The New Zealand Building Code


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 37 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.
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 Acceptable Solutions and Verification Methods

Acceptable Solutions and Verification Methods provide details for construction that, if followed, result in compliance with the Building Code. They are published by the Ministry of Business, Innovation and Employment.

A design that complies with an Acceptable Solution or Verification Method must be accepted by a building consent authority as complying with the Building Code.

There is at least one Acceptable Solution or Verification Method for compliance with each of the Building Code clauses.

For example, for Clause B1 of the Building Code there are two Verification Methods and three Acceptable Solutions.

Acceptable Solutions and Verification Methods 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 G1 Personal Hygiene is known as G1/AS1.
- The Verification Methods for Clause B1 Structure are known as B1/VM1 and B1/VM4.

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 an Acceptable Solution.

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 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 an Acceptable Solution or Verification Method for the proposed construction.
- The building work may incorporate unusual design features that fall outside the scope of an Acceptable Solution or Verification Method.

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 Ministry of Business, Innovation and Employment (the Ministry)

The Ministry has a range of statutory responsibilities for building and housing, and administers New Zealand’s building legislation. The Ministry’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 Acceptable Solutions and Verification Methods that specify 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.

Since March 2012, restricted building work on houses and small-medium sized apartment buildings has only been 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 covers 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
• 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

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 of Building and Housing (now the Ministry of Business, Innovation and Employment).

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 an Acceptable Solution.

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 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 Building Act 2004 as transitional allowances to phase them out.
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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, 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).

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.

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.
# Clause A3—Building Importance Levels

For the purposes of clause C, a building has one of the importance levels set out below:

<table>
<thead>
<tr>
<th>Importance level</th>
<th>Description of building type</th>
<th>Specific structure</th>
</tr>
</thead>
</table>
| Importance level 1 | Buildings posing low risk to human life or the environment, or a low economic cost, should the building fail. These are typically small non-habitable buildings, such as sheds, barns, and the like, that are not normally occupied, though they may have occupants from time to time. | • Ancillary buildings not for human habitation  
• Minor storage facilities  
• Backcountry huts |
| Importance level 2 | Buildings posing normal risk to human life or the environment, or a normal economic cost, should the building fail. These are typical residential, commercial, and industrial buildings. | • All buildings and facilities except those listed in importance levels 1, 3, 4, and 5 |
| Importance level 3 | Buildings of a higher level of societal benefit or importance, or with higher levels of risk-significant factors to building occupants. These buildings have increased performance requirements because they may house large numbers of people, vulnerable populations, or occupants with other risk factors, or fulfill a role of increased importance to the local community or to society in general. | • Buildings where more than 300 people congregate in 1 area  
• Buildings with primary school, secondary school, or daycare facilities with a capacity greater than 250  
• Buildings with tertiary or adult education facilities with a capacity greater than 500  
• Health care facilities with a capacity of 50 or more residents but not having surgery or emergency treatment facilities  
• Jails and detention facilities  
• Any other building with a capacity of 5,000 or more people  
• Buildings for power generating facilities, water treatment for potable water, wastewater treatment facilities, and other public utilities facilities not included in importance level 4 |
### CLAUSE A3—BUILDING IMPORTANCE LEVELS (continued)

<table>
<thead>
<tr>
<th>Importance level</th>
<th>Description of building type</th>
<th>Specific structure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Importance level 3 (continued)</td>
<td>Buildings not included in importance level 4 or 5 containing sufficient quantities of highly toxic gas or explosive materials capable of causing acutely hazardous conditions that do not extend beyond property boundaries.</td>
<td></td>
</tr>
<tr>
<td>Importance level 4</td>
<td>Buildings that are essential to post-disaster recovery or associated with hazardous facilities.</td>
<td>Hospitals and other health care facilities having surgery or emergency treatment facilities. Fire, rescue, and police stations and emergency vehicle garages. Buildings intended to be used as emergency shelters. Buildings intended by the owner to contribute to emergency preparedness, or to be used for communication, and operation centres in an emergency, and other facilities required for emergency response. Power generating stations and other utilities required as emergency backup facilities for importance level 3 structures. Buildings housing highly toxic gas or explosive materials capable of causing acutely hazardous conditions that extend beyond property boundaries. Aviation control towers, air traffic control centres, and emergency aircraft hangars. Buildings having critical national defence functions. Water treatment facilities required to maintain water pressure for fire suppression.</td>
</tr>
</tbody>
</table>

## [Clause A3—Building Importance Levels](#) (continued)

<table>
<thead>
<tr>
<th>Importance level</th>
<th>Description of building type</th>
<th>Specific structure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Importance level 4 (continued)</td>
<td>Buildings whose failure poses catastrophic risk to a large area (e.g., 100 km²) or a large number of people (e.g., 100,000).</td>
<td>• Ancillary buildings (including, but not limited to, communication towers, fuel storage tanks or other structures housing or supporting water or other fire suppression material or equipment) required for operation of importance level 4 structures during an emergency</td>
</tr>
<tr>
<td>Importance level 5</td>
<td>• Major dams&lt;br&gt;• Extremely hazardous facilities</td>
<td></td>
</tr>
</tbody>
</table>

# B Stability

## CLAUSE B1—STRUCTURE

**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,
**CLAUSE B1—STRUCTURE** (continued)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Limits on application</th>
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<td>(j) Impact,</td>
<td></td>
</tr>
<tr>
<td>(k) Explosion,</td>
<td></td>
</tr>
<tr>
<td>(l) Reversing or fluctuating effects,</td>
<td></td>
</tr>
<tr>
<td>(m) Differential movement,</td>
<td></td>
</tr>
<tr>
<td>(n) Vegetation,</td>
<td></td>
</tr>
<tr>
<td>(o) Adverse effects due to insufficient separation from other <strong>buildings</strong>,</td>
<td></td>
</tr>
<tr>
<td>(p) Influence of equipment, services, non-structural elements and contents,</td>
<td></td>
</tr>
<tr>
<td>(q) Time dependent effects including creep and shrinkage, and</td>
<td></td>
</tr>
<tr>
<td>(r) Removal of support.</td>
<td></td>
</tr>
</tbody>
</table>

**B1.3.4** Due allowance shall be made for:

(a) The consequences of failure,
(b) The intended use of the **building**,
(c) Effects of uncertainties resulting from **construction** activities, or the sequence in which **construction** 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 **buildings**.

**B1.3.5** The demolition of **buildings** shall be carried out in a way that avoids the likelihood of premature collapse.

**B1.3.6** **Sitework**, where necessary, shall be carried out to:

(a) Provide stability for **construction** on the site, and
(b) Avoid the likelihood of damage to other **property**.

**B1.3.7** Any **sitework** and associated supports shall take account of the effects of:

(a) Changes in ground water level,
(b) Water, weather and vegetation, and
(c) Ground loss and slumping.
**CLAUSE B2—DURABILITY**

<table>
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<tr>
<th>Provisions</th>
<th>Limits on application</th>
</tr>
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<tbody>
<tr>
<td><strong>OBJECTIVE</strong></td>
<td>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.</td>
</tr>
<tr>
<td><strong>FUNCTIONAL REQUIREMENT</strong></td>
<td></td>
</tr>
<tr>
<td><strong>B2.2 Building</strong> 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.</td>
<td></td>
</tr>
<tr>
<td><strong>PERFORMANCE</strong></td>
<td></td>
</tr>
<tr>
<td><strong>B2.3.1 Building elements</strong> 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:</td>
<td></td>
</tr>
<tr>
<td>(a) The life of the building, being not less than 50 years, if:</td>
<td></td>
</tr>
<tr>
<td>(i) Those building elements (including floors, walls, and fixings) provide structural stability to the building, or</td>
<td></td>
</tr>
<tr>
<td>(ii) Those building elements are difficult to access or replace, or</td>
<td></td>
</tr>
<tr>
<td>(iii) Failure of those building elements to comply with the building code would go undetected during both normal use and maintenance of the building</td>
<td></td>
</tr>
<tr>
<td>(b) 15 years if:</td>
<td></td>
</tr>
<tr>
<td>(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</td>
<td></td>
</tr>
<tr>
<td>(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.</td>
<td></td>
</tr>
</tbody>
</table>

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

### Limits on application

**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.
C Protection from fire

[C1—OBJECTIVES OF CLAUSES C2 TO C6 (PROTECTION FROM FIRE)]

Provisions
The objectives of clauses C2 to C6 are to:

(a) safeguard people from an unacceptable risk of injury or illness caused by fire,
(b) protect other property from damage caused by fire, and
(c) facilitate firefighting and rescue operations.

Limit on application

Schedule 1 clause C1: replaced, on 10 April 2012, by regulation 6 of the Building (Building Code: Fire Safety and Signs) Amendment Regulations 2012 (SR 2012/33).
## [C2—PREVENTION OF FIRE OCCURRING](#)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Limit on application</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FUNCTIONAL REQUIREMENT</strong></td>
<td></td>
</tr>
<tr>
<td><strong>C2.1</strong> Fixed appliances using controlled combustion and other fixed equipment must be designed, constructed, and installed in buildings in a way that reduces the likelihood of illness or injury due to fire occurring.</td>
<td></td>
</tr>
<tr>
<td><strong>PERFORMANCE</strong></td>
<td></td>
</tr>
<tr>
<td><strong>C2.2</strong> The maximum surface temperature of combustible building materials close to fixed appliances using controlled combustion and other fixed equipment when operating at their design level must not exceed 90°C.</td>
<td></td>
</tr>
<tr>
<td><strong>C2.3</strong> Fixed appliances using controlled combustion and other fixed equipment must be designed, constructed and installed so that there is a low probability of explosive or hazardous conditions occurring within any spaces in or around the building that contains the appliances.</td>
<td></td>
</tr>
</tbody>
</table>

[C3—FIRE AFFECTING AREAS BEYOND THE FIRE SOURCE]

Provisions

FUNCTIONAL REQUIREMENT

C3.1 Buildings must be designed and constructed so that there is a low probability of injury or illness to persons not in close proximity to a fire source.

C3.2 Buildings with a building height greater than 10 m where upper floors contain sleeping uses or other property must be designed and constructed so that there is a low probability of external vertical fire spread to upper floors in the building.

C3.3 Buildings must be designed and constructed so that there is a low probability of fire spread to other property vertically or horizontally across a relevant boundary.

Limit on application

Clause C3.2 does not apply to importance level 1 buildings.

Schedule 1 clause C3: replaced, on 10 April 2012, by regulation 6 of the Building (Building Code: Fire Safety and Signs) Amendment Regulations 2012 (SR 2012/33).
### PERFORMANCE

**C3.4 (a)** materials used as internal surface linings in the following areas of buildings must meet the performance criteria specified below:

<table>
<thead>
<tr>
<th>Area of building</th>
<th>Performance determined under conditions described in ISO 9705: 1993</th>
<th>Limit on application</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Buildings not protected with an automatic fire sprinkler system</strong></td>
<td><strong>Buildings protected with an automatic fire sprinkler system</strong></td>
</tr>
<tr>
<td>Wall/ceiling materials in sleeping areas where care or detention is provided</td>
<td>Material Group Number 1-S</td>
<td>Material Group Number 1 or 2</td>
</tr>
<tr>
<td>Wall/ceiling materials in exitways</td>
<td>Material Group Number 1-S</td>
<td>Material Group Number 1 or 2</td>
</tr>
<tr>
<td>Wall/ceiling materials in all occupied spaces in importance level 4 buildings</td>
<td>Material Group Number 1-S</td>
<td>Material Group Number 1 or 2</td>
</tr>
<tr>
<td>Internal surfaces of ducts for HVAC systems</td>
<td>Material Group Number 1-S</td>
<td>Material Group Number 1 or 2</td>
</tr>
<tr>
<td>Ceiling materials in crowd and sleeping uses except household units and where care or detention is provided</td>
<td>Material Group Number 1-S or 2-S</td>
<td>Material Group Number 1 or 2</td>
</tr>
<tr>
<td>Wall materials in crowd and sleeping uses except household units and where care or detention is provided</td>
<td>Material Group Number 1-S or 2-S</td>
<td>Material Group Number 1, 2, or 3</td>
</tr>
<tr>
<td>Wall/ceiling materials in occupied spaces in all other locations in buildings, including household units</td>
<td>Material Group Number 1, 2, or 3</td>
<td>Material Group Number 1, 2, or 3</td>
</tr>
<tr>
<td>External surfaces of ducts for HVAC systems</td>
<td>Material Group Number 1, 2, or 3</td>
<td>Material Group Number 1, 2, or 3</td>
</tr>
<tr>
<td>Acoustic treatment and pipe insulation within airhandling plenums in sleeping uses</td>
<td>Material Group Number 1, 2, or 3</td>
<td>Material Group Number 1, 2, or 3</td>
</tr>
</tbody>
</table>

Schedule 1 clause C3: replaced, on 10 April 2012, by regulation 6 of the Building (Building Code: Fire Safety and Signs) Amendment Regulations 2012 (SR 2012/33).
### C3—FIRE AFFECTING AREAS BEYOND THE FIRE SOURCE (continued)

**Provisions**

(b) floor surface materials in the following areas of buildings must meet the performance criteria specified below:

<table>
<thead>
<tr>
<th>Area of building</th>
<th>Minimum critical radiant flux when tested to ISO 9239-1: 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Buildings not protected with an automatic fire sprinkler system</td>
</tr>
<tr>
<td>Sleeping areas and exitways in buildings where care or detention is provided</td>
<td>4.5 kW/m²</td>
</tr>
<tr>
<td>Exitways in all other buildings</td>
<td>2.2 kW/m²</td>
</tr>
<tr>
<td>Firecells accommodating more than 50 persons</td>
<td>2.2 kW/m²</td>
</tr>
<tr>
<td>All other occupied spaces except household units</td>
<td>1.2 kW/m²</td>
</tr>
</tbody>
</table>

(c) suspended flexible fabrics and membrane structures used in the construction of buildings must have properties resulting in a low probability of injury or illness to persons not in close proximity to a fire source.

**C3.5** Buildings must be designed and constructed so that fire does not spread more than 3.5 m vertically from the fire source over the external cladding of multi-level buildings.

**C3.6** Buildings must be designed and constructed so that in the event of fire in the building the received radiation at the relevant boundary of the property does not exceed 30 kW/m² and at a distance of 1 m beyond the relevant boundary of the property does not exceed 16 kW/m².

Schedule 1 clause C3: replaced, on 10 April 2012, by regulation 6 of the Building (Building Code: Fire Safety and Signs) Amendment Regulations 2012 (SR 2012/33).
[C3—FIRE AFFECTING AREAS BEYOND THE FIRE SOURCE (continued)]

Provisions

C3.7 External walls of buildings that are located closer than 1 m to the relevant boundary of the property on which the building stands must either:

(a) be constructed from materials which are not combustible building materials, or

(b) for buildings in importance levels 3 and 4, be constructed from materials that, when subjected to a radiant flux of 30 kW/m², do not ignite for 30 minutes, or

(c) for buildings in Importance Levels 1 and 2, be constructed from materials that, when subjected to a radiant flux of 30 kW/m², do not ignite for 15 minutes.

C3.8 Firecells located within 15 m of a relevant boundary that are not protected by an automatic fire sprinkler system, and that contain a fire load greater than 20 TJ or that have a floor area greater than 5,000 m² must be designed and constructed so that at the time that firefighters first apply water to the fire, the maximum radiation flux at 1.5 m above the floor is no greater than 4.5 kW/m² and the smoke layer is not less than 2 m above the floor.

C3.9 Buildings must be designed and constructed with regard to the likelihood and consequence of failure of any fire safety system intended to control fire spread.

Limit on application

Schedule 1 clause C3: replaced, on 10 April 2012, by regulation 6 of the Building (Building Code: Fire Safety and Signs) Amendment Regulations 2012 (SR 2012/33).
[C4—MOVEMENT TO PLACE OF SAFETY]

**Provisions**

**FUNCTIONAL REQUIREMENT**

**C4.1** Buildings must be provided with:

(a) effective means of giving warning of fire, and

(b) visibility in escape routes complying with clause F6.

**C4.2** Buildings must be provided with means of escape to ensure that there is a low probability of occupants of those buildings being unreasonably delayed or impeded from moving to a place of safety and that those occupants will not suffer injury or illness as a result.

**PERFORMANCE**

**C4.3** The evacuation time must allow occupants of a building to move to a place of safety in the event of a fire so that occupants are not exposed to any of the following:

(a) a fractional effective dose of carbon monoxide greater than 0.3:

(b) a fractional effective dose of thermal effects greater than 0.3:

(c) conditions where, due to smoke obscuration, visibility is less than 10 m except in rooms of less than 100 m² where visibility may fall to 5 m.

**C4.4** Clause C4.3(b) and (c) do not apply where it is not possible to expose more than 1 000 occupants in a firecell protected with an automatic fire sprinkler system.

**C4.5** Means of escape to a place of safety in buildings must be designed and constructed with regard to the likelihood and consequence of failure of any fire safety systems.

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Schedule 1 clause C4: replaced, on 10 April 2012, by regulation 6 of the Building (Building Code: Fire Safety and Signs) Amendment Regulations 2012 (SR 2012/33).
[C5—ACCESS AND SAFETY FOR FIREFIGHTING OPERATIONS]

Provisions

**FUNCTIONAL REQUIREMENT**

C5.1 *Buildings* must be designed and constructed so that there is a low probability of firefighters or other emergency services personnel being delayed in or impeded from assisting in rescue operations and performing firefighting operations.

C5.2 *Buildings* must be designed and constructed so that there is a low probability of illness or injury to firefighters or other emergency services personnel during rescue and firefighting operations.

**PERFORMANCE**

C5.3 *Buildings* must be provided with access for fire service vehicles to a hard-standing from which there is an unobstructed path to the *building* within 20 m of:

(a) the firefighter access into the *building*, and

(b) the inlets to automatic fire sprinkler systems or fire hydrant systems, where these are installed.

C5.4 Access for fire service vehicles in accordance with clause C5.3 must be provided to more than 1 side of *firecells* greater than 5,000 m² in floor area that are not protected by an automatic fire sprinkler system.

C5.5 *Buildings* must be provided with the means to deliver water for firefighting to all parts of the *building*.

C5.6 *Buildings* must be designed and constructed in a manner that will allow firefighters, taking into account the firefighters’ personal protective equipment and standard training, to:

(a) reach the floor of fire origin,

(b) search the general area of fire origin, and

(c) protect their means of egress.

Limit on application

Performance requirements in clauses C5.3 to C5.8 do not apply to *backcountry huts*, *detached dwellings*, within *household units in multi-unit dwellings*, or to *outbuildings*, and *ancillary buildings*.

Schedule 1 clause C5: inserted, on 10 April 2012, by regulation 6 of the Building (Building Code: Fire Safety and Signs) Amendment Regulations 2012 (SR 2012/33).
<table>
<thead>
<tr>
<th>Provisions</th>
<th>Limit on application</th>
</tr>
</thead>
<tbody>
<tr>
<td>C5.7 Buildings must be provided with means of giving clear information to enable firefighters to:</td>
<td></td>
</tr>
<tr>
<td>(a) establish the general location of the fire,</td>
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<tr>
<td>(b) identify the fire safety systems available in the building, and</td>
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<tr>
<td>(c) establish the presence of hazardous substances or process in the building.</td>
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</tr>
<tr>
<td>C5.8 Means to provide access for and safety of firefighters in buildings must be designed and constructed with regard to the likelihood and consequence of failure of any fire safety systems.</td>
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</tr>
</tbody>
</table>

Schedule 1 clause C5: inserted, on 10 April 2012, by regulation 6 of the Building (Building Code: Fire Safety and Signs) Amendment Regulations 2012 (SR 2012/33).
[C6—STRUCTURAL STABILITY]

Provisions

FUNCTIONAL REQUIREMENT

C6.1 Structural systems in buildings must be constructed to maintain structural stability during fire so that there is:

(a) a low probability of injury or illness to occupants,
(b) a low probability of injury or illness to fire service personnel during rescue and firefighting operations, and
(c) a low probability of direct or consequential damage to adjacent household units or other property.

PERFORMANCE

C6.2 Structural systems in buildings that are necessary for structural stability in fire must be designed and constructed so that they remain stable during fire and after fire when required to protect other property taking into account:

(a) the fire severity,
(b) any automatic fire sprinkler systems within the buildings,
(c) any other active fire safety systems that affect the fire severity and its impact on structural stability, and
(d) the likelihood and consequence of failure of any fire safety systems that affect the fire severity and its impact on structural stability.

C6.3 Structural systems in buildings that are necessary to provide firefighters with safe access to floors for the purpose of conducting firefighting and rescue operations must be designed and constructed so that they remain stable during and after fire.

C6.4 Collapse of building elements that have lesser fire resistance must not cause the consequential collapse of elements that are required to have a higher fire resistance.

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CLAUSE D1—ACCESS ROUTES

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) Maneuvre and park cars, and
(e) Maneuvre 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.
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

OBJECTIVE
D2.1 The objective of this provision is to:
(a) Safeguard people from injury and loss of amenity while using mechanical installations for movement into, within and out of buildings,
(b) Safeguard maintenance personnel from injury while servicing mechanical installations for access, and
(c) Ensure that people with disabilities are able to carry out normal activities and processes within buildings.

FUNCTIONAL REQUIREMENT
D2.2 Mechanical installations for access into, within and out of buildings shall provide for the safe and easy movement of people, and for the safety of maintenance personnel.

PERFORMANCE
D2.3.1 Mechanical installations for access shall:
(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 building,
(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.

Limits on application

Objective D2.1(c) shall apply only to those buildings to which [section 47A of the Act] applies.
### Clause D2—Mechanical Installations for Access (continued)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Limits on application</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>D2.3.2</strong> Mechanical installations for access shall be provided with:</td>
<td>Performance D2.3.3(d) shall not apply to installations travelling less than 15m vertically.</td>
</tr>
<tr>
<td>(a) <em>Adequate</em> control over normal use, to ensure people’s safety throughout any operation involving starting, stopping or changing the direction of travel,</td>
<td></td>
</tr>
<tr>
<td>(b) Notification of position, where people are fully enclosed and the installation serves more than two levels,</td>
<td></td>
</tr>
<tr>
<td>(c) <em>Adequate</em> lighting and ventilation for both normal and emergency use, and</td>
<td></td>
</tr>
<tr>
<td>(d) Signs as required by Clause F8 “Signs”,</td>
<td></td>
</tr>
<tr>
<td><strong>D2.3.3</strong> Mechanical installations for access shall, for emergency purposes, be provided with a means of:</td>
<td></td>
</tr>
<tr>
<td>(a) Calling outside help,</td>
<td></td>
</tr>
<tr>
<td>(b) Releasing people safely,</td>
<td></td>
</tr>
<tr>
<td>(c) Safeguarding people from exposure to hazardous situations, and</td>
<td></td>
</tr>
<tr>
<td>(d) Allowing authorised personnel to override the normal running procedure and take exclusive control of the installation.</td>
<td></td>
</tr>
<tr>
<td><strong>D2.3.4</strong> Potentially dangerous equipment shall be located in spaces which:</td>
<td></td>
</tr>
<tr>
<td>(a) Are secure from unauthorised entry and contain only equipment associated with the installation,</td>
<td></td>
</tr>
<tr>
<td>(b) Are appropriately sized and suitably guarded to provide <em>adequate</em> safe working areas for maintenance personnel,</td>
<td></td>
</tr>
<tr>
<td>(c) Are provided with <em>adequate</em> power and lighting for maintenance, and</td>
<td></td>
</tr>
<tr>
<td>(d) Have an environment that ensures the safe operation of the equipment under all likely conditions of use.</td>
<td></td>
</tr>
</tbody>
</table>
### 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
## CLAUSE E1—SURFACE WATER

### 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.

Performance E1.3.2 shall apply only to Housing, Communal Residential and Communal Non-residential buildings.
[CLAUSE E2—EXTERNAL MOISTURE]

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)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Limits on application</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>E2.3.7</strong> <em>Building elements</em> must be constructed in a way that makes due allowance for the following:</td>
<td></td>
</tr>
<tr>
<td>(a) the consequences of failure:</td>
<td></td>
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<tr>
<td>(b) the effects of uncertainties resulting from <em>construction</em> or from the sequence in which different aspects of <em>construction</em> occur:</td>
<td></td>
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<tr>
<td>(c) variation in the properties of materials and in the characteristics of the site.</td>
<td></td>
</tr>
</tbody>
</table>
**[Clause E3—Internal Moisture]**

**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.

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Clause E3 was substituted, as from 14 October 2004, by regulation 3 Building Amendment Regulations 2004 (SR 2004/317).
## CLAUSE F1—HAZARDOUS AGENTS ON SITE

<table>
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<tr>
<th>Clauses</th>
<th>Provisions</th>
<th>Limits on application</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>OBJECTIVE</strong></td>
<td>F1.1 The objective of this provision is to safeguard people from injury or illness caused by hazardous agents or contaminants on a site.</td>
<td></td>
</tr>
<tr>
<td><strong>FUNCTIONAL REQUIREMENT</strong></td>
<td>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.</td>
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<tr>
<td><strong>PERFORMANCE</strong></td>
<td>F1.3.1 Sites shall be assessed to determine the presence and potential threat of any hazardous agents or contaminants.</td>
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<tr>
<td></td>
<td>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.</td>
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<tr>
<td>Provisions</td>
<td>Limits on application</td>
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<td>---------------------------------------------------------------------------</td>
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<tr>
<td><strong>OBJECTIVE</strong></td>
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<tr>
<td><strong>F2.1</strong> The objective of this provision is to safeguard people from injury and illness caused by exposure to hazardous building materials.</td>
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<tr>
<td><strong>FUNCTIONAL REQUIREMENT</strong></td>
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<tr>
<td><strong>F2.2</strong> Building materials which are potentially hazardous, shall be used in ways that avoid undue risk to people.</td>
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<tr>
<td><strong>PERFORMANCE</strong></td>
<td>Performance F2.3.2 does not apply to Housing</td>
<td></td>
</tr>
<tr>
<td><strong>F2.3.1</strong> 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.</td>
<td></td>
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<tr>
<td><strong>F2.3.2</strong> Transparent panels capable of being mistaken for an unimpeded path of travel shall be marked to make them visible.</td>
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<tr>
<td><strong>F2.3.3</strong> Glass or other brittle materials with which people are likely to come into contact shall:</td>
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<tr>
<td>(a) If broken on impact, break in a way which is unlikely to cause injury, or</td>
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<tr>
<td>(b) Resist a reasonably foreseeable impact without breaking, or</td>
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<tr>
<td>(c) Be protected from impact.</td>
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</tbody>
</table>
CLAUSE F3—HAZARDOUS SUBSTANCES AND PROCESSES

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

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—SAFETY FROM FALLING (continued)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Limits on application</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tr>
<tr>
<td>[(h) Be constructed so that they are not readily able to be used as seats.]</td>
<td>[Performance F4.3.4(h) does not apply to Housing.]</td>
</tr>
<tr>
<td><strong>F4.3.5</strong> Barriers to swimming pools shall have in addition to performance F4.3.4:</td>
<td></td>
</tr>
<tr>
<td>[(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]</td>
<td></td>
</tr>
<tr>
<td>(b) No permanent objects on the outside of the barrier that could provide a climbing step.</td>
<td></td>
</tr>
</tbody>
</table>

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

OBJECTIVE

F5.1 The objective of this provision is to safeguard people from injury, and other property from damage, caused by construction or demolition site hazards.

FUNCTIONAL REQUIREMENT

[F5.2] Construction and demolition work on buildings shall be performed in a manner that avoids the likelihood of:
(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 other property, and
(d) Unauthorised entry of children to hazards on the site.

PERFORMANCE

F5.3.1 Suitable construction methods shall be used to avoid the likelihood of tools or materials falling onto places where people might be present.

F5.3.2 Where construction or demolition work presents a hazard in places to which the public has access, barriers shall be provided and shall:
(a) Be of appropriate height and construction to prevent site hazards from harming traffic or passersby,
(b) Be difficult to climb,
(c) Have no opening other than those approved by the territorial authority 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.

Limits on application

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)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Limits on application</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>F5.3.3</strong> Where a <em>construction</em> 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.</td>
<td></td>
</tr>
<tr>
<td><strong>F5.3.4</strong> 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 <em>construction</em> or demolition work is being carried out.</td>
<td></td>
</tr>
</tbody>
</table>
[CLAUSE F6—VISIBILITY IN ESCAPE ROUTES]

**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).


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 “Ancilliary” 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)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Limits on application</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>F6.3.3</strong> 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:</td>
<td></td>
</tr>
<tr>
<td>(a) areas where dangerous machinery is installed:</td>
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<tr>
<td>(b) areas where hazardous processes take place:</td>
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<tr>
<td>(c) clinical areas of hospitals:</td>
<td></td>
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<tr>
<td>(d) prisons and other buildings in which people are detained:</td>
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<tr>
<td>(e) any part of an escape route designed for use at any time by more than 250 people.</td>
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</tr>
<tr>
<td><strong>F6.3.4</strong> 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:</td>
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</tr>
<tr>
<td>(a) risk group A, until restoration of the main lighting system:</td>
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<tr>
<td>(b) risk group B, 90 minutes:</td>
<td></td>
</tr>
<tr>
<td>(c) risk group C, 30 minutes:</td>
<td></td>
</tr>
<tr>
<td><strong>F6.3.5</strong> 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).</td>
<td></td>
</tr>
<tr>
<td><strong>F6.3.6</strong> Signs to indicate escape routes must be provided as required by Clause F8 &quot;Signs&quot;.</td>
<td></td>
</tr>
</tbody>
</table>
CLAUSE F7—WARNING SYSTEMS

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 “Ancilliary”.

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

### CLAUSE F8—SIGNS

**OBJECTIVE**

F8.1 The objective of this provision is to:

- safeguard people from injury or illness resulting from inadequate identification of escape routes, or of hazards within or about the building;
- safeguard people from loss of amenity due to inadequate direction, and
- ensure that people with disabilities are able to carry out normal activities and processes within buildings.

**FUNCTIONAL REQUIREMENT**

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

- escape routes,
- emergency related safety features,
- potential hazards, and
- accessible routes and facilities for people with disabilities.

**PERFORMANCE**

F8.3.1 Signs must be clearly visible and readily understandable under all conditions of foreseeable use, including emergency conditions.

F8.3.2 Signs identifying potential hazards must be provided and located so that people encounter the signs before encountering the potential hazard.

F8.3.3 Signs to facilitate escape to a place of safety must be provided and

- be located to identify the escape routes, and
- continue to meet the performance requirements in clause F8.3.1 during failure of the main lighting for the period required by performance F6.3.4 and performance F6.3.5.

F8.3.4 Signs must be provided and located to identify accessible routes and facilities provided for people with disabilities.

F8.3.4 Accessible routes must be identified with the International Symbol of Access.

<table>
<thead>
<tr>
<th>Limits on application</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective F8.1(c) applies only to those buildings to which section 118 of the Building Act 2004 applies.</td>
</tr>
<tr>
<td>Requirement F8.2 does not apply to detached dwellings, or within household units in multi-unit dwellings.</td>
</tr>
</tbody>
</table>

Schedule 1 clause F8: replaced, on 10 April 2012, by regulation 7 of the Building (Building Code: Fire Safety and Signs) Amendment Regulations 2012 (SR 2012/33).
CLAUSE G1—PERSONAL HYGIENE

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.
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.}

Note: Section 47A is in the Building Act 1991. The equivalent section in the Building Act 2004 is section 118.
### Clause G2—Laundering

#### 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

<table>
<thead>
<tr>
<th>Facility Requirement</th>
<th>Limit on Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>G2.3.1 Facilities</td>
<td>Objective G2.1(b) shall apply to those buildings to which [section 47A of the Act] applies.</td>
</tr>
<tr>
<td>G2.3.2 Space</td>
<td>Requirement G2.2 shall apply only to Housing, old people's homes, early childhood centres, camping grounds and work camps.</td>
</tr>
<tr>
<td>G2.3.3 Space and facilities</td>
<td>Performance G2.3.4 shall apply only to camping grounds.</td>
</tr>
</tbody>
</table>

Note: Section 47A is in the Building Act 1991. The equivalent section in the Building Act 2004 is section 118.
### CLAUSE G3—FOOD PREPARATION AND PREVENTION OF CONTAMINATION

#### 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.

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.

---

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”.

Note: Section 47A is in the Building Act 1991. The equivalent section in the Building Act 2004 is section 118.
### CLAUSE G3—FOOD PREPARATION AND PREVENTION OF CONTAMINATION (continued)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Limits on application</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>G3.3.2</strong> Spaces for food preparation and utensil washing shall have:</td>
<td>Performance G3.3.2(b) shall apply to <strong>Housing</strong>, work camps, old people’s homes and early childhood centres, and where appropriate shall also apply to <strong>Commercial and Industrial buildings</strong> whose intended uses include the manufacture, preparation, packaging or storage of food.</td>
</tr>
<tr>
<td>(a) Interior linings and work surfaces shall be <em>impervious</em> and easily cleaned,</td>
<td>Performance G3.3.2(c) shall not apply to <strong>Housing</strong>.</td>
</tr>
<tr>
<td>(b) All <em>building elements</em> constructed with materials which are free from <em>hazardous substances</em> which could cause contamination to the <em>building</em> contents, and</td>
<td>Performance G3.3.5 shall apply only to camping grounds and <strong>accessible</strong> accommodation units in <strong>Communal Residential buildings</strong>.</td>
</tr>
<tr>
<td>(c) Exposed <em>building elements</em> located and shaped to avoid the accumulation of dirt.</td>
<td>Performance G3.3.6 shall apply to <strong>Commercial or Industrial buildings</strong> 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.</td>
</tr>
<tr>
<td><strong>G3.3.3</strong> An <em>adequate</em> energy supply shall be provided, appropriately located for use by cooking and refrigeration appliances.</td>
<td></td>
</tr>
<tr>
<td><strong>G3.3.4</strong> Space and facilities shall be provided within each <strong>household unit</strong>, or grouped elsewhere in a convenient location.</td>
<td></td>
</tr>
<tr>
<td><strong>G3.3.5</strong> Where facilities are provided for <strong>people with disabilities</strong> they shall be accessible.</td>
<td></td>
</tr>
<tr>
<td><strong>G3.3.6</strong> Spaces in <strong>buildings</strong> 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.</td>
<td></td>
</tr>
</tbody>
</table>
CLAUSE G4—VENTILATION

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.

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”.

Limits on application
### CLAUSE G5—INTERIOR ENVIRONMENT

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Limits on application</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>OBJECTIVE</strong></td>
<td></td>
</tr>
<tr>
<td><strong>G5.1</strong> The objective of this provision is to:</td>
<td>Objective G5.1(d) shall apply to those buildings to which [section 47A of the Act] applies.</td>
</tr>
<tr>
<td>(a) Safeguard people from illness caused by low air temperature,</td>
<td></td>
</tr>
<tr>
<td>(b) Safeguard people from injury or loss of amenity caused by inadequate activity space,</td>
<td></td>
</tr>
<tr>
<td>(c) Safeguard people from injury caused by unsafe installations, and</td>
<td></td>
</tr>
<tr>
<td>(d) Ensure that people with disabilities are able to carry out normal activities and processes within buildings.</td>
<td></td>
</tr>
<tr>
<td><strong>FUNCTIONAL REQUIREMENT</strong></td>
<td>Requirement G5.2.1(a) shall apply only to habitable spaces, bathrooms and recreation rooms in old people’s homes and early childhood centres.</td>
</tr>
<tr>
<td><strong>G5.2.1</strong> Buildings shall be constructed to provide:</td>
<td>Requirement G5.2.1(b) shall apply only to [old people’s homes].</td>
</tr>
<tr>
<td>(a) An adequate, controlled interior temperature,</td>
<td>Requirement G5.2.1(c) shall apply only to Communal Residential, Communal Non-residential, and Commercial buildings.</td>
</tr>
<tr>
<td>(b) Adequate activity space for the intended use, and</td>
<td></td>
</tr>
<tr>
<td>(c) Accessible spaces and facilities.</td>
<td></td>
</tr>
<tr>
<td><strong>PERFORMANCE</strong></td>
<td>Performance G5.3.1 shall apply only to old people’s homes an early childhood centres.</td>
</tr>
<tr>
<td><strong>G5.3.1</strong> 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.</td>
<td>Performance G5.3.2 shall apply only to old people’s homes and early childhood centres.</td>
</tr>
<tr>
<td><strong>G5.3.2</strong> Heating appliances, and any attached cables, pipes or other fittings shall be securely fixed in place.</td>
<td>Performance G5.3.3 shall apply only to old people’s homes.</td>
</tr>
<tr>
<td><strong>G5.3.3</strong> Habitable spaces shall have sufficient space for activity, furniture, and sanitary and mobility aids.</td>
<td>Performance G5.3.4 applies only to Communal Residential, Communal Non-Residential, and Commercial buildings.</td>
</tr>
<tr>
<td><strong>G5.3.4</strong> Where reception counters or desks are provided for public use, at least one counter or desk shall be accessible.</td>
<td></td>
</tr>
</tbody>
</table>

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 2000/118), by substituting the expression “section 47A of the Act” for the expression “section 25 of the Disabled Persons Community Welfare Act 1975”.

Note: Section 47A is in the Building Act 1991. The equivalent section in the Building Act 2004 is section 118.
**CLAUSE G5—INTERIOR ENVIRONMENT** (continued)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Limits on application</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>G5.3.5</strong> Buildings shall be provided with listening systems which enable enhanced hearing by people with hearing aids.</td>
<td>Performance G5.3.5 applies only to:</td>
</tr>
<tr>
<td><strong>G5.3.6</strong> Enhanced listening systems shall be identified by signs complying with Clause F8 “Signs”.</td>
<td>(a) Communal Non-Residential assembly spaces occupied by more than 250 people, and</td>
</tr>
<tr>
<td></td>
<td>(b) Any theatre, cinema, or public hall, and</td>
</tr>
<tr>
<td></td>
<td>(c) Assembly spaces in old people’s homes occupied by more than 20 people.</td>
</tr>
</tbody>
</table>
**CLAUSE G6—AIRBORNE AND IMPACT SOUND**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Limits on application</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>OBJECTIVE</strong></td>
<td></td>
</tr>
<tr>
<td><strong>G6.1</strong> 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.</td>
<td></td>
</tr>
<tr>
<td><strong>FUNCTIONAL REQUIREMENT</strong></td>
<td></td>
</tr>
<tr>
<td><strong>G6.2</strong> 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.</td>
<td></td>
</tr>
<tr>
<td><strong>PERFORMANCE</strong></td>
<td></td>
</tr>
<tr>
<td><strong>G6.3.1</strong> The Sound Transmission Class of walls, floors and ceilings, shall be no less than 55.</td>
<td></td>
</tr>
<tr>
<td><strong>G6.3.2</strong> The Impact Insulation Class of floors shall be no less than 55.</td>
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</tr>
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### CLAUSE G7—NATURAL LIGHT

#### 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

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.]
# CLAUSE G9—ELECTRICITY

## 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.

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

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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”.

Note: Section 47A is in the Building Act 1991. The equivalent section in the Building Act 2004 is section 118.
**CLAUSE G9—ELECTRICITY** (continued)

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<td>(a) Maintain the supply for a time appropriate to that service, and</td>
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<td>(b) Be capable of being isolated from the supply system, independently of the remainder of the installation.</td>
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<td><strong>G9.3.3</strong> An electrical installation connected to an electrical supply system, shall contain safeguards which protect the safety features of the external supply.</td>
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<td><strong>G9.3.4</strong> In buildings intended for use by people with disabilities, light switches and plug socket outlets shall be accessible and usable.</td>
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## CLAUSE G10—PIPED SERVICES

### 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.
## CLAUSE G11—GAS AS AN ENERGY SOURCE

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### 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.
[CLAUSE G12—WATER SUPPLIES]

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.

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.]]
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 ""legionalla"".
CLAUSE G13—FOUL WATER

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.

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.]
CLAUSE G15—SOLID WASTE

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 Ancilliary 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”.

30 September 2010

DEPARTMENT OF BUILDING AND HOUSING
H Energy Efficiency

[CLAUSE H1—ENERGY EFFICIENCY 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 ...

[[H 1.3.2C] ...

[[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 H1.3.2: 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

(d) the heat gains from services, processes and occupants; and
(e) the local climate; and
(f) heat gains from solar radiation.

[[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,—]]

[[a) limit the energy lost in the heating process; and]]

[[b) be constructed to limit heat losses from storage vessels and from distribution systems; and]]

[[c) be constructed to facilitate the efficient use of hot water.]]

H.1.3.5 Artificial lighting fixtures must—

(a) be located and sized to limit energy use, consistent with the intended use of space; and
(b) be fitted with a means to enable light intensities to be reduced, consistent with reduced activity in the space.

[[H1.3.6 HVAC systems must be located, constructed, and installed to—]]

[[a) limit energy use, consistent with the intended use of space; and]]

[[b) enable them to be maintained to ensure their use of energy remains limited, consistent with the intended use of space.]]

Limits on application

[[Performance H1.3.4(b) does not apply to individual storage vessels that are greater than 700 litres in capacity.]]

[[Performance H1.3.4(c) applies only to housing.]]

Performance H1.3.5 does not apply to lighting provided solely to meet the requirements of clause F6.

[[Performance H1.3.6 applies only to commercial buildings.]]

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.

Acceptable Solutions and Verification Methods 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 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 Acceptable Solution and Verification Method.

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Part 2.2: 1996  Actions on structures exposed to fire

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

ISO 1182: 2010  Reaction to fire tests for products –  
Non-combustibility test

ISO 3864: 2002  Safety colours and safety signs  
Part 1: Design principles for safety signs in workplaces and  
public areas

ISO 5660:- Reaction-to-fire tests – Heat release, smoke  
production and mass loss rate  
Part 1: 2002  Heat release rate (cone calorimeter method)  
Part 2: 2002  Smoke production rate (dynamic measurement)

ISO 7000: 2004  Graphic symbols for use on equipment

ISO 7010: 2003  Graphical symbols – safety colours and safety  
signs – Safety signs used in workplaces and  
public areas

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

ISO 9239:- Reaction to fire tests for flooring  
Part 1: 2010  Determination of the burning behaviour using  
a radiant heat source

ISO 9705: 1993  Fire tests – Full scale room test for surface products

Classification and requirements for sealants

ISO 12239 2003  Fire detection and fire alarm systems – smoke alarms


ISO 13571: 2007  Life-threatening components of fire  
Guidelines for the estimation of time available for  
escape using fire data

ISO 13784:- Reaction-to-fire tests for sandwich panel building  
systems  
Part 1: 2002  Test method for small rooms

Where quoted

C/AS1-C/AS6

G13/AS1

C/VM2

E2/AS1

G6/VM1

C/VM2

F8/AS1

C/AS1-C/AS6, C/VM2

C/AS1-C/AS6, C/VM2

F8/AS1

F8/AS1

E2/AS1

C/AS1-C/AS6, C/VM2

C/AS1-C/AS6, C/VM2

E2/AS1, SH/AS1

F7/AS1

E2/AS1, SH/AS1

C/VM2

C/VM2
ISO 13785:- Reaction-to-fire tests for façades
Part 1: 2002 Immediate-scale test

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

German Institute for Standardisation
DIN 5381: 1985 Identification colours
DIN 6164: 1980 DIN Colour chart
Part 2: Specification of colour samples

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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
ANSI/ASME B16.3: 1985 Malleable-iron threaded fittings, Classes 150 and 300
ANSI/ASME B16.5: 1988 Pipe flanges and flanged fittings, steel-nickel alloy and other special alloys
ANSI B16.11: 1980 Forged steel fittings, socket-welding and threaded

American Petroleum Institute
API SPEC 5L: 1991 Specification for line pipe
API STD 1104: 1988 Welding of pipelines and related facilities
American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE)

Design of smoke management systems. Kline and Milke 1992

American Society of Sanitary Engineers

ASSE 1050: 1991 Performance requirements for air admittance valves for plumbing DWV systems stack type devices

ASSE 1051: 1992 Performance requirements for air admittance valves for plumbing drainage systems

American Society for Testing and Materials

ASTM A 53 – 90a Specification for pipe, steel, black and hot-dipped, zinc-coated welded and seamless

ASTM A 106 – 91a Specification for seamless carbon steel pipe for high temperature service

ASTM D 1143: 1981 Test method for piles under static axial compressive load


ASTM D 2240: 2005 Standard Test method for Rubber Property


ASTM E 96: 2005 Standard test methods for water vapour transmission of materials


Where quoted

C/AS1

G13/AS1

G13/AS1

G13/AS1

G10/AS1

G10/AS1

B1/VM4

SH/AS1

E2/AS1

E2/AS1

E2/AS1

E2/AS1

E2/AS1

E2/AS1

E2/AS1
ASTM E 336: 1990 Method for measurement of airborne sound insulation in buildings

ASTM E 413: 1987 Classification for rating sound insulation

ASTM E 492: 1990 Test method for laboratory measurement of impact sound transmission through floor-ceiling assemblies using a tapping machine


ASTM E 989: 1989 Classification for determination of impact insulation class (IIC)


ASTM G 154: 2006 Standard Practice for Operating Fluorescent Light Apparatus for UV Exposure of Nonmetallic Materials

ASTM G 155: 2005 Standard Practice for Operating Xenon Arc Light Apparatus for UV Exposure of Nonmetallic Materials

National Fire Protection Association of America

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

Society of Fire Protection Engineers


SFPE Engineering Guide to Predicting 1st and 2nd Degree Skin Burns from Thermal Radiation, 2000

Where quoted

G6/VM1

G6/VM1

G6/VM1

SH/AS1

G6/VM1

E2/AS1

E2/AS1

E2/AS1

C/AS1-C/AS6, C/VM2

C/VM2

C/VM2
United States Environmental Protection Agency (EPA)
USEPA SW 846: 1986 Test methods for evaluating solid waste
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)

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

Miscellaneous Publication
Definitions

Many of the definitions in this section come from the Building Act 2004, regulations, including the Building Code, and Acceptable Solutions and Verification Methods. 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 Acceptable Solutions and Verification Methods. In the event there is any discrepancy between the definitions in this section and the definitions in the legislation or Acceptable Solutions and Verification Methods, the definitions in the legislation and Acceptable Solutions and Verification Methods will prevail.

Note that some legislation and Acceptable Solutions and Verification Methods may contain different definitions for the terms listed below. When using particular legislation or an Acceptable Solution or Verification Method, reference should be made to the definitions provided in that document.

Source Key:

<table>
<thead>
<tr>
<th>Source Key</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BA04</td>
<td>Building Act 2004</td>
</tr>
<tr>
<td>BR1</td>
<td>Building Regulations 1992</td>
</tr>
<tr>
<td>BR2</td>
<td>Building (Specified Systems, Change the Use, and Earthquake-prone Buildings) Regulations 2005</td>
</tr>
<tr>
<td>Code</td>
<td>New Zealand Building Code</td>
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<tr>
<td>EA</td>
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<td>HB</td>
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<tr>
<td>HSNOA</td>
<td>Hazardous Substances and New Organisms Act 1996</td>
</tr>
<tr>
<td>LGA</td>
<td>Local Government Act 1974 or 2002</td>
</tr>
<tr>
<td>PGDA</td>
<td>Plumbers, Gasfitters, and Drainlayers Act 1976</td>
</tr>
<tr>
<td>RA</td>
<td>Railway Act 2005</td>
</tr>
<tr>
<td>RMA</td>
<td>Resource Management Act 1991</td>
</tr>
<tr>
<td>AS/VM (Code clause)</td>
<td>Acceptable Solution or Verification Method for given Code clause (eg, AS/VM G13)</td>
</tr>
<tr>
<td>DG</td>
<td>Building Consent Authority Development Guide</td>
</tr>
<tr>
<td>Simple House</td>
<td>Simple House Acceptable Solution</td>
</tr>
</tbody>
</table>

Definition

A

Abutment The part of the valley side against which the dam 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 Building Code. BA04

Access chamber A chamber with working space at drain level through which the drain passes either as an open channel or as a pipe incorporating an inspection point. AS/VM E1, G13

Access point A place where access may be made to a drain or discharge pipe for inspection, cleaning or maintenance; and may include a cleaning eye, inspection point, rodding point, inspection chamber or access chamber. AS/VM G13

Access route A continuous route that permits people and goods to move between the apron or construction edge of the building to spaces within a building, and between spaces within a building. Code
<table>
<thead>
<tr>
<th>Definition</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Accessible</strong> Having features to permit use by <em>people with disabilities</em>.</td>
<td>Code</td>
</tr>
<tr>
<td><strong>Accessible route</strong> An <em>access route</em> usable by <em>people with disabilities</em>. It shall be a continuous route that can be negotiated unaided by a wheelchair user. The route shall extend from street <em>boundary</em> or car parking area to those spaces within the <em>building</em> required to be <em>accessible</em> to enable <em>people with disabilities</em> to carry out normal activities and processes within the <em>building</em>.</td>
<td>Code</td>
</tr>
<tr>
<td><strong>Accessible stairway</strong> A <em>stairway</em> having features for use by a person with a <em>disability</em>. <em>Buildings</em> required to be <em>accessible</em> shall have at least one <em>accessible stairway</em> leading off an <em>accessible route</em> whether or not a lift is provided.</td>
<td>AS/VM C</td>
</tr>
<tr>
<td><strong>Accreditation certificate</strong> means a certificate that was issued by the Building Industry Authority under the Building Act 1991.</td>
<td>HB</td>
</tr>
<tr>
<td><strong>COMMENT:</strong> Accreditation certificates have become product certificates under the Building Act 2004 and are subject to the product certification scheme under the Building Act 2004.</td>
<td></td>
</tr>
<tr>
<td><strong>Active conductor</strong> Any conductor in which the electrical potential differs from that of a neutral conductor or earth.</td>
<td>AS/VM F8</td>
</tr>
<tr>
<td><strong>Adequate</strong> means <em>Adequate</em> to achieve the objectives of the <em>Building Code</em>.</td>
<td>Code</td>
</tr>
<tr>
<td><strong>Adjacent building</strong> A nearby <em>building</em>, including an adjoining <em>building</em>, whether or not erected on <em>other property</em>.</td>
<td>Code</td>
</tr>
<tr>
<td><strong>Air gap</strong> The vertical distance through air between the lowest point of the water supply outlet and the <em>flood level rim</em> of the equipment or the <em>fixture</em> into which the outlet discharges.</td>
<td>AS/VM G12</td>
</tr>
<tr>
<td><strong>Air admittance valve</strong> A valve that allows air to enter but not to escape in order to limit pressure fluctuations within the sanitary plumbing or drainage system.</td>
<td>AS/VM G13</td>
</tr>
<tr>
<td><strong>Air seal</strong> A continuous seal fitted between a window or door reveal and the surrounding wall <em>framing</em> to prevent the flow of air into the interior of the <em>building</em>.</td>
<td>AS/VM E2</td>
</tr>
<tr>
<td><strong>Allotment</strong> has the meaning given to it by section 10 of the <em>Building Act 2004</em>.</td>
<td>BA04</td>
</tr>
</tbody>
</table>

Section 10 states:

“(1) In this Act, unless the context otherwise requires, **allotment** means

(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 1962 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

| Definition Source |
---|---|
| **BA04** |

25 May 2007

DEPARTMENT OF BUILDING AND HOUSING
(2) For the purposes of subsection (1), an allotment is taken—
(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:
(b) to include the balance of any land from which any allotment is being
or has been subdivided.”

*Alter* in relation to a *building*, includes to rebuild, re-erect, repair, enlarge
and extend the *building*.

*Alternative solution* means a solution that is compliant with the *Building Code*
but is not part of the *Compliance Document*.

**Aluminium flashings** Aluminium *flashings* 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.

**Aluminium-zinc coated steel flashings** Aluminium-zinc coated steel
flashings shall be:
(a) BMT 0.55 mm minimum of steel for *flashings* generally
(b) BMT 0.4 mm of steel for roll-formed roll-top ridge *flashings*
(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.

*Amenity* means an attribute of a *building* which contributes to the health,
physical independence, and well being of the *building*’s users but which
is not associated with disease or a specific illness.

**Anti-ponding board** A board laid under the lowest row of concrete and clay
roof tiles and supports the *roof underlay*. The board is sloped to ensure
moisture under the tiles is directed to the exterior of the roof.

**Appliance hearth** A layer of *non-combustible* material under or near an
appliance. It may be either part of the *building* structure or an overlay
on a *combustible* floor.

**Approved temperature data** means the temperature data contained in
A I Tomlinson and J Sansom, *Temperature Normals for New Zealand

**Appurtenant structure**, in relation to a *dam*, means a structure that is integral
to the proper functioning of the *dam*.

**Apron flashing** A near flat or sloping *flashing* with a vertical upstand,
used at junctions between roofs and walls.
**Asbestos** as defined by the Health and Safety in Employment (Asbestos) Regulations 1983 means:

(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 inspirating effect of a gas injector and/or by natural draught in the combustion chamber without mechanical assistance.

**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.

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

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

**Available safe egress time (ASET)** Time available for escape for an individual occupant. This is the calculated time interval between the time of ignition of a fire and the time at which conditions become such that the occupant is estimated to be incapacitated (ie, unable to take effective action to escape to a place of safety).

**Backcountry hut** means a building that—

(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:
<table>
<thead>
<tr>
<th>Definition</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i) sleeping platforms or bunks:</td>
<td></td>
</tr>
<tr>
<td>(ii) mattresses:</td>
<td></td>
</tr>
<tr>
<td>(iii) food preparation surfaces:</td>
<td></td>
</tr>
<tr>
<td>(iv) appliances for heating:</td>
<td></td>
</tr>
<tr>
<td>(v) appliances for cooking:</td>
<td></td>
</tr>
<tr>
<td>(vi) toilets; and</td>
<td></td>
</tr>
<tr>
<td>(d) has been certified by the Director-General as being in a location that wheelchair users are unlikely to be able to visit; and</td>
<td></td>
</tr>
<tr>
<td>(e) is intended to be able to sleep—</td>
<td></td>
</tr>
<tr>
<td>(i) no more than 20 people in its backcountry hut sleeping area; and</td>
<td></td>
</tr>
<tr>
<td>(ii) no more than 40 people in total; and</td>
<td></td>
</tr>
<tr>
<td>(f) does not contain any connection, except by radiocommunications, to a network utility operator</td>
<td></td>
</tr>
<tr>
<td><strong>Backcountry hut sleeping area</strong> means the area of a backcountry hut that contains sleeping platforms, bunks, or beds that are—</td>
<td><strong>Code</strong></td>
</tr>
<tr>
<td>(a) within the same room as a food preparation or eating area; or</td>
<td></td>
</tr>
<tr>
<td>(b) in a fully enclosed room that is separate from any food preparation or eating area and has—</td>
<td></td>
</tr>
<tr>
<td>(i) internal walls that limit the spread of fire; and</td>
<td></td>
</tr>
<tr>
<td>(ii) the means of direct egress to outside the hut.</td>
<td></td>
</tr>
<tr>
<td><strong>Backflow</strong> A flowing back or reversal of the normal direction of the flow caused by back-pressure and includes back-siphonage.</td>
<td><strong>AS/VM -C</strong></td>
</tr>
<tr>
<td><strong>Backflow prevention device</strong> A device that prevents backflow.</td>
<td><strong>AS/VM C, G12</strong></td>
</tr>
<tr>
<td><strong>Backing rod</strong> Closed cell polyethylene foam (PEF) rod inserted into gap to provide backing support for foam air seal or sealant</td>
<td><strong>Simple House</strong></td>
</tr>
<tr>
<td><strong>Back-pressure</strong> A backflow condition caused by the downstream pressure becoming greater than the supply pressure.</td>
<td><strong>AS/VM G12</strong></td>
</tr>
<tr>
<td><strong>Back-siphonage</strong> Backflow condition caused by the supply pressure becoming less than the downstream pressure.</td>
<td><strong>AS/VM G12</strong></td>
</tr>
<tr>
<td><strong>Baluster</strong> A post providing the support for the top and bottom rails of a barrier.</td>
<td><strong>CD-B1, CD-B2</strong></td>
</tr>
<tr>
<td><strong>Baluster</strong> An infil member that provides support for the top and bottom rails of a barrier.</td>
<td><strong>Simple House</strong></td>
</tr>
<tr>
<td><strong>Balustrade</strong> The infill parts of a barrier (typically between floor and top rail).</td>
<td><strong>AS/VM B2, F4</strong></td>
</tr>
<tr>
<td><strong>Basement</strong> Any firecell or part of a firecell below the level of the lowest final exit.</td>
<td><strong>AS/VM C</strong></td>
</tr>
</tbody>
</table>

**COMMENT:**
Because fire safety systems are increased with increases in escape height, the precautions for basements increase with basement depth. Thus a single floor building with one basement level is treated as a two floor building, a single floor building with three basement levels as a four floor building.
<table>
<thead>
<tr>
<th>Definition</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Base metal thickness (BMT)</strong> The thickness of the bare or base metal before any subsequent coating, such as galvanizing.</td>
<td>AS/VM E2</td>
</tr>
<tr>
<td><strong>Batten</strong> See <strong>ceiling batten</strong>, <strong>tile batten</strong>.</td>
<td>Simple House</td>
</tr>
<tr>
<td><strong>Bird's beak</strong> A double fold applied to the edge of a horizontal metal flashing to stiffen the edge and to assist in deflecting moisture away from the cladding system below. Refer also <strong>Kick-out</strong> and <strong>Drip edge</strong>.</td>
<td>AS/VM E2</td>
</tr>
<tr>
<td><strong>COMMENT:</strong> A bird's beak is used at the bottom of a capping to deflect water away from the enclosed balustrade cladding.</td>
<td></td>
</tr>
<tr>
<td><strong>Blocking</strong> Solid timber having the same depth as the joists and set at right angles between the joists to stiffen and prevent them from buckling.</td>
<td>Simple House</td>
</tr>
<tr>
<td><strong>Bond, running</strong> or <strong>stretcher</strong> The bond when the units of each course overlap the units in the preceding course by between 25% and 75% of the length of the units.</td>
<td>Simple House</td>
</tr>
<tr>
<td><strong>Bottom plate</strong> A plate placed under the bottom end of <strong>studs</strong>.</td>
<td>Simple House</td>
</tr>
<tr>
<td><strong>Boundary</strong> means any <strong>boundary</strong> that is shown on a survey plan that is approved by the Surveyor-General and deposited with the Registrar-General of Land, whether or not a new title has been issued.</td>
<td>AS/VM C</td>
</tr>
<tr>
<td><strong>Boundary joist</strong> A joist running along the outer ends of the floor joists.</td>
<td>AS/VM B1</td>
</tr>
<tr>
<td><strong>Bracing</strong> Any method employed to provide lateral support to a <strong>building</strong>.</td>
<td>Simple House</td>
</tr>
<tr>
<td><strong>Bracing capacity</strong> Strength of <strong>bracing</strong> of a whole <strong>building</strong> or of elements within a <strong>building</strong>. <strong>Bracing capacity</strong> is measured in <strong>bracing units</strong> (BUs).</td>
<td>Simple House</td>
</tr>
<tr>
<td><strong>Bracing demand</strong> The horizontal forces to be resisted by a whole <strong>building</strong> or by an element within a <strong>building</strong>. These horizontal forces are a result of wind or earthquake action. <strong>Bracing demand</strong> forces are measured in <strong>bracing units</strong> (BUs).</td>
<td>Simple House</td>
</tr>
<tr>
<td><strong>Bracing line</strong> A line along or across a <strong>building</strong> containing wall <strong>bracing elements</strong>.</td>
<td>Simple House</td>
</tr>
<tr>
<td><strong>Bracing rating</strong> The lateral load resistance assigned, for example, to a wall <strong>bracing system</strong>.</td>
<td>Simple House</td>
</tr>
<tr>
<td><strong>Bracing unit (BU)</strong> A <strong>bracing</strong> unit is a measure of:</td>
<td>Simple House</td>
</tr>
<tr>
<td>(a) the horizontal force (<strong>bracing demand</strong>) on the <strong>building</strong> (1 kiloNewton is equal to 20 bracing units)</td>
<td></td>
</tr>
<tr>
<td>(b) the resistance to horizontal force (<strong>bracing capacity</strong>) of building elements.</td>
<td></td>
</tr>
<tr>
<td><strong>Branch discharge pipe</strong> A <strong>discharge pipe</strong> that serves one or more fixture discharge pipes for any one floor.</td>
<td>AS/VM G13</td>
</tr>
<tr>
<td><strong>Branch vent pipe</strong> A <strong>vent pipe</strong> that serves two or more fixture vent pipes.</td>
<td>AS/VM G13</td>
</tr>
<tr>
<td><strong>Building</strong> has the meaning given to it by sections 8 and 9 of the <strong>Building Act 2004</strong>.</td>
<td>BA04</td>
</tr>
</tbody>
</table>

**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
(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
(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.

**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.

**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

**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

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

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

**Building consent authority (BCA)** means a person whose name is entered

**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.
## Definitions

<table>
<thead>
<tr>
<th>Definition</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Building height</strong></td>
<td>Building height means the vertical distance between the floor level of the lowest occupied space above the ground and the top of the highest occupied floor, but not including spaces located within or on the roof that enclose stairways, lift shafts, or machinery rooms.</td>
</tr>
<tr>
<td></td>
<td>Code</td>
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<tr>
<td></td>
<td>BA04</td>
</tr>
<tr>
<td><strong>Building method or product</strong></td>
<td>has the meaning given to it by section 20 of the Building Act 2004. Section 20(2)(c) states:</td>
</tr>
<tr>
<td></td>
<td>“(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.”</td>
</tr>
<tr>
<td></td>
<td>BA04</td>
</tr>
<tr>
<td><strong>Building performance index (BPI)</strong></td>
<td>in relation to a building, means the heating energy of the building divided by the product of the heating degrees total and the sum of the floor area and the total wall area, and so is calculated in accordance with the following formula:</td>
</tr>
<tr>
<td></td>
<td>BPI = heating energy / (heating degrees total x (floor area + total wall area))</td>
</tr>
<tr>
<td></td>
<td>Code</td>
</tr>
<tr>
<td><strong>Building work</strong></td>
<td>(a) means work—</td>
</tr>
<tr>
<td></td>
<td>(i) for, or in connection with, the construction, alteration, demolition, or removal of a building; and</td>
</tr>
<tr>
<td></td>
<td>(ii) on an allotment that is likely to affect the extent to which an existing building on that allotment complies with the Building Code; and</td>
</tr>
<tr>
<td></td>
<td>(b) includes sitework; and</td>
</tr>
<tr>
<td></td>
<td>(c) includes design work (relating to building work) that is design work of a kind declared by the Governor-General by Order in Council to be restricted building work for the purposes of the Act; and</td>
</tr>
<tr>
<td></td>
<td>(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 building work for the purposes of Part 4</td>
</tr>
<tr>
<td></td>
<td>BA04</td>
</tr>
<tr>
<td><strong>Building warrant of fitness (BWoF)</strong></td>
<td>means the warrant of fitness an owner of a building must supply to a territorial authority under section 108 of the Building Act 2004.</td>
</tr>
<tr>
<td></td>
<td>HB</td>
</tr>
<tr>
<td><strong>Building wrap</strong> or <strong>building underlay</strong></td>
<td>See wall underlay.</td>
</tr>
<tr>
<td></td>
<td>Simple House</td>
</tr>
<tr>
<td><strong>Burnout</strong></td>
<td>Means exposure to fire for a time that includes fire growth, full development, and decay in the absence of intervention or automatic suppression, beyond which the fire is no longer a threat to building elements intended to perform loadbearing or fire separation functions, or both.</td>
</tr>
<tr>
<td></td>
<td>Code</td>
</tr>
</tbody>
</table>
**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.

**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:

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

**Cable car—**

(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.

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.

**Capacity** The load resistance of a connector or fixing.

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

**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.

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

**Cavity spacer** A short block used to provide intermittent support for fixings or pipe penetrations through a *drained cavity*, while not interrupting drainage within the cavity.

A *cavity spacer* 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 *drained cavity*.

**Ceiling batten** A horizontal member fixed below *rafters*, or truss bottom chords to which the ceiling *lining* is attached.

**Certificate of acceptance** means a certificate issued under section 96 of the *Building Act 2004*.

**Certificate for public use** means a certificate issued under section 363A* HB of the Building Act 2004*.

**Change the use** for the purposes of sections 114 and 115 of the *Building Act 2004*, change the use, in relation to a *building*, means to change the use (determined in accordance with regulation 6) of all or a part of the *building* from one use (the old use) to another (the new use) and with the result that the requirements for compliance with the *Building Code* in relation to the new use are additional to, or more onerous than, the requirements for compliance with the *Building Code* in relation to the old use.

**Check valve (or non-return valve)** A valve that permits flow in one direction but prevents a return flow and is part of a *backflow prevention device*.

**Chimney** A *non-combustible* structure which encloses one or more *flues*, *fireplaces* or other heating appliances.

**Chimney back** The *non-combustible* wall forming the back of a *fireplace*.

**Chimney base** That part of a *chimney* which houses the *fireplace*.

**Chimney breast** The front *fireplace* wall *construction* above the *fireplace* opening.

**Chimney jamb** The side walls of a *fireplace*.

**Cladding** The exterior weather-resistant surface of a *building*.

**Cladding system** The outside or exterior weather-resistant surface of a *building*; including *roof cladding* and *roof underlays*, *wall cladding* and *wall underlays*, and cavity components, rooflights, windows, doors and all penetrations, *flashings*, seals, joints and junctions.

Where required by this Acceptable Solution, the *cladding system* shall include a *drained cavity*.

**Classified use** means a *classified use* listed in clause A1 of the *Building Code*.

**Cleaning eye** A small *diameter access point* usually formed as part of a fitting or trap.
Definitions

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

**Clearly visible** for the purposes of Clause F8 and in relation to a sign means the nearest such sign is visible and readable at the maximum distance from which it needs to be viewed, to a person who either does not have a visual impairment, or uses corrective lenses.

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

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

**Combustible** See non-combustible.

**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.

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

**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.

**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.

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

Section 22 states:

(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.

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

**Computational fluid dynamics (CFD)** Calculation method that solves equations to represent the movement of fluids in an environment.

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

**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.
Definitions

**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.

**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.

**Construct** in relation to a **building**, includes to design, build, erect, prefabricate, and relocate the **building**.

**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.

(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 **licensee**, present a hazard to **persons** within that area.

**Control joint** A joint designed to prevent damage by accommodating movement. See also **Expansion joint**.

**Cross connection** Any actual or potential connection between a **potable water** supply and a source of contamination.

**D**

**D** A deformed reinforcing bar of the stated **diameter** in millimetres.

**Dam**

(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 **dam**; and

(ii) a natural feature that has been significantly modified to function as a **dam**; and

(iii) a canal; but

(c) does not include a stopbank designed to control floodwaters.
### Definition

#### 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.

**Dam safety assurance programme** means a *dam safety assurance programme* prepared by an owner of a *dam* under section 140 of the *Building Act 2004*.

**COMMENT:**

In order for *dams* to maintain their integrity ongoing monitoring, maintenance and repair is essential. For those *dams* classified as medium or high potential impact, *dam* owners have to prepare and submit a safety assurance programme to the *regional authority* on an annual basis.

**Dam compliance certificate**

A certificate issued by the owner of a *dam* annually stating that all procedures in the *dam safety assurance programme* have been fully complied with during the previous 12 months.

**Damp-proof course (DPC)**

A narrow strip (generally up to 300 mm wide) of *durable vapour barrier* placed between *building elements* to prevent the passage of moisture from one element to another.

**Damp-proof course (DPC)**

A narrow strip (generally up to 300 mm wide) of *durable vapour barrier* greater than 90MN s/g to ASTM E96 and placed between *building elements* to prevent the passage of moisture from one element to another.

**Damp-proof membrane (DPM)**

A sheet material, coating or *vapour barrier*, 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.)

**Dangerous goods**

Any materials included in the UN classification, classes 2-5.

**COMMENT:**

See *Hazardous substance*.

**Dangerous goods workroom**

A room reserved primarily for the use of *dangerous goods* of Class 3(a) or Class 3(b) (i.e. flammable liquids).

**Dead end**

That part of an *open path* where escape is possible in only one direction.

**COMMENT:**

A *dead end* ceases to exist where the *escape route* reaches a point in the *open path* which offers alternative directions of travel, or at a *final exit* or an *exitway*.

**Deck**

An open platform projecting from an exterior wall of a *building* and supported by *framing*. A *deck* may be over enclosed internal spaces, or may be open underneath.

Refer also *Enclosed deck*.

Also known as a *balcony*. 

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Amend 11 Sep 2010
<table>
<thead>
<tr>
<th>Definition</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Department</strong> means the Department of Building and Housing.</td>
<td>HB</td>
</tr>
<tr>
<td><strong>Department of Conservation</strong> means the department of State established</td>
<td>Code</td>
</tr>
<tr>
<td><strong>Design fire</strong> Quantitative description of assumed fire characteristics</td>
<td>AS/VM C</td>
</tr>
<tr>
<td>within the design scenario.</td>
<td></td>
</tr>
<tr>
<td><strong>Design scenario</strong> Specific scenario on which a deterministic fire safety</td>
<td>AS/VM C</td>
</tr>
<tr>
<td>engineering analysis is conducted.</td>
<td></td>
</tr>
<tr>
<td><strong>Detection time</strong> Time interval between ignition of a fire and its</td>
<td>AS/VM -C</td>
</tr>
<tr>
<td>detection by an automatic or manual system.</td>
<td></td>
</tr>
<tr>
<td><strong>Determination</strong> means a determination made by the Chief Executive under</td>
<td>BA04</td>
</tr>
<tr>
<td><strong>Developed length</strong> The total length along the centre line of a pipe</td>
<td>AS/VM G13</td>
</tr>
<tr>
<td>including fittings and bends.</td>
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<tr>
<td><strong>Diagonal brace</strong> A member of a framed building fixed diagonally and</td>
<td>Simple House</td>
</tr>
<tr>
<td>used to resist tension or compression or both.</td>
<td></td>
</tr>
<tr>
<td><strong>Diameter (or bore)</strong> The nominal internal diameter.</td>
<td>AS/VM G12, G13</td>
</tr>
<tr>
<td><strong>Direct fixed</strong> A term used to describe a wall cladding attached directly</td>
<td>AS/VM E2</td>
</tr>
<tr>
<td>to the wall framing, without the use of a drained cavity.</td>
<td></td>
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<tr>
<td><strong>Director-General</strong> has the same meaning as in section 2(1) of the</td>
<td>Code</td>
</tr>
<tr>
<td><strong>Discharge pipe</strong> Any pipe that is intended to convey discharge from</td>
<td>AS/VM G13</td>
</tr>
<tr>
<td>sanitary fixtures or sanitary appliances.</td>
<td></td>
</tr>
<tr>
<td><strong>Discharge stack</strong> A discharge pipe that has one or more discharge pipe</td>
<td>AS/VM G13</td>
</tr>
<tr>
<td>connections, and which is vented at one end via a discharge stack vent.</td>
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</tr>
<tr>
<td><strong>Discharge stack vent</strong> A vent pipe connected to the top of the</td>
<td>AS/VM G13</td>
</tr>
<tr>
<td>discharge stack.</td>
<td></td>
</tr>
<tr>
<td><strong>Discharge unit</strong> The unit of measure for the discharge (hydraulic load)</td>
<td>AS/VM G13</td>
</tr>
<tr>
<td>in the plumbing system, and is based on the rate, duration and frequency</td>
<td></td>
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<tr>
<td>of discharge from a sanitary fixture or sanitary appliance.</td>
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<tr>
<td><strong>Doorset</strong> A complete assembly comprising a door leaf or leaves including</td>
<td>AS/VM C, F8</td>
</tr>
<tr>
<td>any glazed or solid panels adjacent to or over the leaves within the door</td>
<td></td>
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<tr>
<td>frame including hardware or other inbuilt features; and a door frame, if</td>
<td></td>
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<tr>
<td>any, with its fixings to the wall and, for a sliding or tilting door, all</td>
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<tr>
<td>guides and their respective fixings to the lintel, wall or sill.</td>
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<tr>
<td><strong>Dormer or dormer window</strong> A framed structure that projects from a sloping</td>
<td>AS/VM E2</td>
</tr>
<tr>
<td>roof, and has a window at its outer end.</td>
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</tr>
<tr>
<td><strong>Drain</strong> A pipe normally laid below ground level including fittings and</td>
<td>Code</td>
</tr>
<tr>
<td>equipment and intended to convey foul water or surface water to an</td>
<td></td>
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<tr>
<td>outfall.</td>
<td></td>
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<tr>
<td><strong>Drained cavity</strong> A cavity space, immediately behind a wall cladding,</td>
<td>AS/VM E2</td>
</tr>
<tr>
<td>that has vents at the base of the wall. Also known as a drained and</td>
<td></td>
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<tr>
<td>vented cavity and referred to in E2/AS1 as a cavity or drained cavity.</td>
<td></td>
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<tr>
<td>A drained cavity assists drying by allowing water which occasionally</td>
<td></td>
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<tr>
<td>penetrates the wall cladding system to drain to the exterior of the</td>
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<tr>
<td>building, and any remaining</td>
<td></td>
</tr>
<tr>
<td>Definition</td>
<td>Source</td>
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<td>----------------------------------------------------------------------------</td>
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<tr>
<td>moisture to dry by evaporation. Where E2/AS1 requires a nominal 20 mm drained cavity, the depth shall be between limits of 18 mm and 25 mm. For definition of masonry veneer cavity refer to SNZ HB 4236.</td>
<td></td>
</tr>
<tr>
<td><strong>Drain vent pipe</strong> Any pipe which is intended to permit the movement of air into and out of the drain and sewer.</td>
<td>AS/VM G13</td>
</tr>
<tr>
<td><strong>Draught diverter</strong> 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.</td>
<td>AS/VM G4, C</td>
</tr>
<tr>
<td><strong>Drip edge</strong> 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.</td>
<td>AS/VM E2</td>
</tr>
<tr>
<td><strong>Durable</strong> Resistant to wear and decay.</td>
<td>AS/VM B2</td>
</tr>
<tr>
<td><strong>Dwang</strong> A short (usually horizontal) member fixed between vertical framing timbers. Also known as nogging.</td>
<td>AS/VM E2</td>
</tr>
<tr>
<td><strong>Early childhood centre</strong> means premises used regularly for the education or care of 3 or more children (not being children of the persons providing the education or care, or children enrolled at a school being provided with education or care before or after school) under the age of six— a) by the day or part of a day; but b) not for any continuous period of more than seven days.</td>
<td>AS/VM C</td>
</tr>
<tr>
<td><strong>Eaves</strong> That part of the roof construction, including cladding, fascia and eaves gutter (spouting), that extends beyond the exterior face of the wall.</td>
<td>AS/VM E2</td>
</tr>
<tr>
<td><strong>Eaves bearer or soffit bearer or sprocket</strong> 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.</td>
<td>Simple House</td>
</tr>
<tr>
<td><strong>EPDM</strong> Ethylene Propylene Diene Monomer – a thermosetting synthetic rubber. See butyl rubber.</td>
<td>Simple House</td>
</tr>
<tr>
<td><strong>EIFS (Exterior Insulation and Finish System)</strong> 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.</td>
<td>AS/VM E2</td>
</tr>
<tr>
<td><strong>Electrical fixed appliance</strong> An electrical appliance which is fixed-wired to the electrical installation, or intended to remain permanently attached and form part of the building.</td>
<td>Code</td>
</tr>
<tr>
<td><strong>Electrical installation</strong> 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.</td>
<td>Code</td>
</tr>
<tr>
<td><strong>Electrical supply system</strong> The source of electricity external to the electrical installation.</td>
<td>Code</td>
</tr>
<tr>
<td><strong>Electrolytic corrosion</strong> Galvanic corrosion commonly resulting from the contact of two dissimilar metals when an electrolyte such as water is present.</td>
<td>AS/VM E2</td>
</tr>
</tbody>
</table>
Definitions

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

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.

Energy work means—
(a) gasfitting; or
(b) prescribed electrical work

Energy work certificate means a certificate of the kind referred to in section 19(1)(e) of the Building Act 2004.

Envelope complexity The categorisation of the complexity of the total building envelope into one of four classes, depending on the particular features of the building as specified in E2/AS1.

EPDM (Ethylene Propylene Diene Monomer) A thermosetting synthetic rubber used as a resilient part of a sealing washer, or as a roof membrane.

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.

Escape height The height between the floor level in the firecell being considered and the floor level of the required final exit which is the greatest vertical distance above or below that firecell.

COMMENT:
1. It is necessary only to use the greatest height to the exits required for the firecell being considered, even though the building may have other final exits at lower or higher levels.
2. Where the firecell contains intermediate floors, or upper floors within household units the escape height shall be measured from the floor having the greatest vertical separation from the final exit.

Escape route A continuous unobstructed route from any occupied space in a building to a final exit to enable occupants to reach a safe place, and shall comprise one or more of the following: open paths, protected paths and safe paths.

COMMENT:
Doors are not obstructions in an escape route provided they comply with C/AS1 Part 3 and D1/AS1.

Essential service In the context of an electrical installation means emergency lighting, firemen’s lifts, alarms, water pumps, sprinklers, detectors, ventilation systems and public address systems necessary for the safety of people in buildings.

Estimated value In relation to building work, 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 building work.

Evacuation time Time interval between the time of warning of a fire being transmitted to the occupants and the time at which the occupants of a specified part of a building or all of the building are able to enter a place of safety.
### Definitions

**Exitway**  All parts of an *escape route* protected by *fire* or *smoke separations*, or by distance when exposed to open air, and terminating at a *final exit*.

**Expansion joint**  A joint designed to prevent damage by accommodating movement. See also *Control joint*.

**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*.

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

**External wall**  An outer wall of a *building*.

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

### 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.

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

(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*.

**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*.

**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.

**Fire**  The state of combustion during which flammable materials burn producing heat, toxic gases, or smoke or flame or any combination of these.

**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.

**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*.
<table>
<thead>
<tr>
<th>Definition</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fire damper</strong></td>
<td>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.</td>
</tr>
<tr>
<td><strong>COMMENT:</strong></td>
<td>An airway may be a duct, plenum, ceiling space, roof space or similar construction used for the passage of ventilating air.</td>
</tr>
<tr>
<td><strong>Fire decay</strong></td>
<td>Stage of fire development after a fire has reached its maximum intensity and during which the heat release rate and the temperature of the fire are decreasing.</td>
</tr>
<tr>
<td><strong>Fire door</strong></td>
<td>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.</td>
</tr>
<tr>
<td><strong>COMMENT:</strong></td>
<td>Requirements for fire doors are given in C/AS1 Paragraphs 6.19.1 and 6.19.8 and Appendix C, Paragraph C 8.1.</td>
</tr>
<tr>
<td><strong>Fire growth</strong></td>
<td>Stage of fire development during which the heat release rate and the temperature of the fire are increasing.</td>
</tr>
<tr>
<td><strong>Fire hazard</strong></td>
<td>means the danger of potential harm and degree of exposure arising from— (a) the start and spread of fire; and (b) the smoke and gases that are generated by the start and spread of fire.</td>
</tr>
<tr>
<td><strong>Fire hazard category (FHC)</strong></td>
<td>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.</td>
</tr>
<tr>
<td><strong>COMMENT:</strong></td>
<td>Fire hazard categories are identified in C/AS1 Table 2.1.</td>
</tr>
<tr>
<td><strong>Fire intensity</strong></td>
<td>The rate release of calorific energy in watts, determined either theoretically or empirically, as applicable.</td>
</tr>
<tr>
<td><strong>Fire load</strong></td>
<td>Quantity of heat which can be released by the complete combustion of all the combustible materials in a volume, including the facings of all bounding surfaces (Joules).</td>
</tr>
<tr>
<td><strong>Fire load</strong></td>
<td>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.)</td>
</tr>
</tbody>
</table>
**Fire load energy density (FLED)** Fire load per unit area (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.

**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 structural adequacy, integrity and insulation are satisfied, and is presented always in that order.

**Fire resisting closure** A fire rated device or assembly for closing an opening through a fire separation.

**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.

**Fire retardant** A substance or a treatment, incorporated in or applied to a material, which suppresses or delays the combustion of that material under specified conditions.

**Fire safety engineering** Application of engineering methods based on scientific principles to the development or assessment of designs in the built environment through the analysis of specific design scenarios or through the quantification of risk for a group of design scenarios.
### Definitions

<table>
<thead>
<tr>
<th>Definition</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fire safety systems</strong> means the combination of all active and passive</td>
<td>Code</td>
</tr>
<tr>
<td>protection methods used in a building to—</td>
<td></td>
</tr>
<tr>
<td>(a) warn people of an emergency; and</td>
<td></td>
</tr>
<tr>
<td>(b) provide for safe evacuation; and</td>
<td></td>
</tr>
<tr>
<td>(c) provide for access by, and the safety of, firefighters; and</td>
<td></td>
</tr>
<tr>
<td>(d) restrict the spread of fire; and</td>
<td></td>
</tr>
<tr>
<td>(e) limit the impact of fire on structural stability</td>
<td></td>
</tr>
<tr>
<td><strong>Fire separation</strong> Any building element which separates firecells or</td>
<td>Code</td>
</tr>
<tr>
<td>firecells and safe paths, and provides a specific fire resistance rating.</td>
<td></td>
</tr>
<tr>
<td><strong>Fire shutter</strong> A fire rated device, complete with fixings and operating</td>
<td>AS/VM C</td>
</tr>
<tr>
<td>mechanism, for automatically closing off an opening in a fire separation</td>
<td></td>
</tr>
<tr>
<td>or protected shaft.</td>
<td></td>
</tr>
<tr>
<td><strong>Fire stop</strong> A material or method of construction used to restrict the</td>
<td>AS/VM C</td>
</tr>
<tr>
<td>spread of fire within or through fire separations, and having a FRR no</td>
<td></td>
</tr>
<tr>
<td>less than that of the fire separation.</td>
<td></td>
</tr>
<tr>
<td><strong>COMMENT:</strong> Fire stops are mainly used to seal around penetrations, but</td>
<td>Code</td>
</tr>
<tr>
<td>can also be used to seal narrow gaps between building elements.</td>
<td></td>
</tr>
<tr>
<td><strong>Fixture</strong> An article intended to remain permanently attached to and form</td>
<td>Code</td>
</tr>
<tr>
<td>part of a building.</td>
<td></td>
</tr>
<tr>
<td><strong>Fixture discharge pipe</strong> A discharge pipe that is used to convey waste</td>
<td>AS/VM G13</td>
</tr>
<tr>
<td>from a single sanitary fixture or sanitary appliance to a branch</td>
<td></td>
</tr>
<tr>
<td>discharge pipe, a discharge stack, or directly to a drain. It does not</td>
<td></td>
</tr>
<tr>
<td>include any pipes forming part of a sanitary appliance.</td>
<td></td>
</tr>
<tr>
<td><strong>Fixture vent pipe (trap vent)</strong> A vent pipe that is connected to a</td>
<td>AS/VM G13</td>
</tr>
<tr>
<td>fixture discharge pipe or the sanitary fixture itself.</td>
<td></td>
</tr>
<tr>
<td><strong>Flame safeguard system</strong> A system consisting of a flame detector(s)</td>
<td>AS/VM G11</td>
</tr>
<tr>
<td>plus associated circuitry, integral components, valves and interlocks</td>
<td></td>
</tr>
<tr>
<td>the function of which is to shut off the fuel supply to the burner(s) in</td>
<td></td>
</tr>
<tr>
<td>the event of ignition failure or flame failure.</td>
<td></td>
</tr>
<tr>
<td><strong>Flammability index (FI)</strong> That index number for flammability, which</td>
<td>AS/VM C</td>
</tr>
<tr>
<td>is determined according to the standard test method for flammability</td>
<td></td>
</tr>
<tr>
<td>of thin flexible materials.</td>
<td></td>
</tr>
<tr>
<td><strong>Flashing</strong> A component, formed from a rigid or flexible waterproof</td>
<td>AS/VM E2</td>
</tr>
<tr>
<td>material, that drains or deflects water back outside the cladding system.</td>
<td></td>
</tr>
<tr>
<td><strong>Flashover</strong> Stage of fire transition to a state of total surface</td>
<td>AS/VM C</td>
</tr>
<tr>
<td>involvement in a fire of combustible materials within an enclosure.</td>
<td></td>
</tr>
<tr>
<td><strong>Flexible flashing tape</strong> A flexible self-adhesive waterproof tape.</td>
<td>AS/VM E2</td>
</tr>
<tr>
<td>Usually used as an accessory for wall underlays, to seal corners and</td>
<td></td>
</tr>
<tr>
<td>intersections.</td>
<td></td>
</tr>
</tbody>
</table>
### Definitions

**Flexible flashing tape** A flexible self-adhesive waterproof tape. Usually used as an accessory for wall underlays to seal corners and intersections.

**Flood level rim** The top edge at which water can overflow from equipment or a fixture.

**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.

**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.

**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.

**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.

**Flue** The passage through which the products of combustion are conveyed to the outside.

**Flue liner** Pipes or linings of fire clay, metal or fire brick, surrounding flues.

**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.

**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.

**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 polychloropene foams.

**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.
### Definitions

<table>
<thead>
<tr>
<th><strong>Definition</strong></th>
<th><strong>Source</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Forced or induced draught appliance An appliance where all or part of the air</td>
<td>AS/VM G4</td>
</tr>
<tr>
<td>for combustion is provided by a fan or other mechanical device which is an</td>
<td></td>
</tr>
<tr>
<td>integral part of the combustion system.</td>
<td></td>
</tr>
<tr>
<td>Former Act means the Building Act 1991.</td>
<td>BA04</td>
</tr>
<tr>
<td>Foul water The discharge from any sanitary fixture or sanitary appliance.</td>
<td>Code</td>
</tr>
<tr>
<td>Foul water drainage system Drains, joints and fittings normally laid</td>
<td>Code</td>
</tr>
<tr>
<td>underground and used specifically for the conveyance of water from the plumbing</td>
<td></td>
</tr>
<tr>
<td>system to an outfall.</td>
<td></td>
</tr>
<tr>
<td>Foundation Those parts of a building transmitting and distributing loads to</td>
<td>Simple House</td>
</tr>
<tr>
<td>the ground through a footing.</td>
<td></td>
</tr>
<tr>
<td>Fractional effective dose (FED) The fraction of the dose (of carbon monoxide</td>
<td></td>
</tr>
<tr>
<td>(CO) or thermal effects) that would render a person of average susceptibility</td>
<td></td>
</tr>
<tr>
<td>incapable of escape.</td>
<td></td>
</tr>
<tr>
<td><strong>COMMENT:</strong> The definition for FED has been modified from the ISO definition</td>
<td></td>
</tr>
<tr>
<td>to be made specific for Verification Method C/VM2. The ISO definition is “Ratio</td>
<td></td>
</tr>
<tr>
<td>of the exposure dose for an insult to that exposure dose of the insult expected</td>
<td></td>
</tr>
<tr>
<td>to produce a specified effect on an exposed subject of average susceptibility.”</td>
<td></td>
</tr>
<tr>
<td>Framing Timber members to which lining, cladding, flooring, or decking is</td>
<td>AS/VM E2</td>
</tr>
<tr>
<td>attached; or which are depended upon for supporting the structure, or for</td>
<td></td>
</tr>
<tr>
<td>resisting forces applied to it.</td>
<td></td>
</tr>
<tr>
<td>Free outlet (push through) In the context of storage water heaters means a</td>
<td>AS/VM G12</td>
</tr>
<tr>
<td>water heater with a tap on the cold water inlet so designed that the hot</td>
<td></td>
</tr>
<tr>
<td>water is discharged through an open outlet.</td>
<td></td>
</tr>
<tr>
<td>Fully developed fire State of total involvement of combustible materials in</td>
<td>AS/VM C</td>
</tr>
<tr>
<td>a fire.</td>
<td></td>
</tr>
<tr>
<td>Functional requirements in relation to a building, means those functions</td>
<td>BA04</td>
</tr>
<tr>
<td>which a building is to perform for the purposes of the Building Act 2004.</td>
<td></td>
</tr>
<tr>
<td>G</td>
<td></td>
</tr>
<tr>
<td>Gable Triangular part of an external wall between the planes of the roof and</td>
<td>Simple House</td>
</tr>
<tr>
<td>the line of the eaves.</td>
<td></td>
</tr>
<tr>
<td>Galvanised steel flashings Galvanised steel flashings shall be:</td>
<td>Simple House</td>
</tr>
<tr>
<td>(a) BMT of 0.55 mm minimum for flashings generally</td>
<td></td>
</tr>
<tr>
<td>(b) BMT of 0.4 mm minimum for roll-formed roll-top ridge flashings</td>
<td></td>
</tr>
<tr>
<td>(c) Hot-dipped zinc coated Z275 with a factory-applied finish that complies</td>
<td></td>
</tr>
<tr>
<td>with AS/NZS 2728 Type 4, and in Sea Spray and corrosion Zone 1 the factory-</td>
<td></td>
</tr>
<tr>
<td>applied finish shall be Type 5 minimum.</td>
<td></td>
</tr>
<tr>
<td>Gantry A structure covering a public way providing protection from both the</td>
<td>AS/VM F5</td>
</tr>
<tr>
<td>side and overhead.</td>
<td></td>
</tr>
</tbody>
</table>
### Definition

**Gasfitting** has the meaning given to it by section 2 of the Plumbers, Gasfitters, and Drainlayers Act 1976.

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—

(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.

**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:

(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 forseeably 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.
Definitions

**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) 5 blows per 100 mm at depths down to twice the footing width.

(b) 3 blows per 100 mm at depths greater than twice the footing width.

Depths shall be measured from the underside of the proposed footing.

**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 factor of safety of 3.0) but excluding:

(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;

(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, seasonal swelling and shrinkage, frost heave, changing ground water level, erosion, dissolution of soil in water, and effects of tree roots.

(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 *good ground* for building foundations if penetration resistance is no less than:

(i) 3 blows per 75 mm at depths no greater than the footing width

(ii) 2 blows per 75 mm at depths greater than the footing width.

Depths shall be measured from the underside of the proposed footing.)

**Grease trap** A device designed to intercept grease in a *foul water* discharge.

**Gross floor area** The area contained within the outside face of the exterior timber wall *framing* of a *simple house*.

**Ground level** See *cleared ground level*, *finished ground level*.

**Group Number** The classification number for a material used as a finish, surface, lining, or attachment to a wall or ceiling within an *occupied space* and determined according to the *standard test* methods for measuring the properties of lining materials.

**COMMENT:**
The method for determining a Group Number is described in C/VM2 Appendix A.
**Definitions**

<table>
<thead>
<tr>
<th>Definition</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Group sleeping area</strong> A <em>firecell</em> containing communal sleeping accommodation for a specified number of people who may or may not be known to one another. Partial subdivision within the <em>firecell</em> is permitted with specific limitation including that no <em>occupied space</em> is fully enclosed and all <em>occupied spaces</em> are open and available to all occupants at any time. A <em>group sleeping area firecell</em> 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.</td>
<td>AS/VM C</td>
</tr>
</tbody>
</table>

**COMMENT:**

1. Examples of *group sleeping area firecells* are dormitories, hospital wards, *wharenui*, backpacker hostels and ski lodges.

2. The maximum number of people permitted in a *group sleeping area firecell*, and the permitted form of subdivision, will depend on the ability of the occupants to react to the presence of fire and escape to a safe place.

| **Gully trap** A fitting designed to prevent foul air escaping from the drainage system and used to receive the discharge from *waste pipes*. | AS/VM G13 |

**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
Definitions

- **Corrosiveness**: (iv) Corrosiveness:
- **Toxicity**: (v) Toxicity (including chronic toxicity)
- **Ecotoxicity**: (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.

**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.

**Heating degrees total**: in relation to a location and a year, means whichever is the greater of the following:

(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.

**Heating energy**: in relation to a building, means the energy from a network utility operator or a depletable resource (expressed in kilowatt-hours, and calculated using the Building Research Association of New Zealand’s ALF 3, The ‘Annual Loss Factor’ Method, A design tool for energy efficient houses (3rd edition, April 2000) or some other method that can be correlated with that manual) needed to maintain the building at all times within a year at a constant internal temperature under the following standard conditions:

(a) a continuous temperature of 20°C throughout the building

(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 floor area, and 10 kilowatt-hours for every additional square metre of floor area

(d) no allowance for—

(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).

**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 approved temperature data) of the outdoor temperatures at that location during that month.

**Heat of combustion**: Thermal energy produced by combustion of unit mass of a given substance (kJ/g).

**Heat release**: Thermal energy produced by combustion (Joules).
Definitions

**Heat release rate (HRR)** Rate of thermal energy production generated by combustion (kW or MW).

**Hem** A flat fold, not completely closed, applied to the edge of a metal *flashing*.

**Hidden gutter** A gutter located within the boundaries of the roof *framing*. *Hidden gutters* may also be known as secret gutters or internal gutters. See also *Valley gutters*.

**COMMENT:** *Hidden gutters* are distinct from gutters or spouting that are externally located beyond the bounds of the roof and wall *framing*.

**Hoarding** A structure alongside a public way providing side protection but no overhead protection.

**Hold-open device** A device which holds a *smoke control door* or *fire door* open during normal use, but is released by deactivating the device by an automatic *fire* detection system, allowing the door to close automatically under the action of a self-closing device.

**Hook** An open fold applied to the edge of a metal *flashing*.

**COMMENT:** A *hook* is distinct from a *hem*, as it is open at an acute angle rather than flattened.

**Household unit**

(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.

**HVAC** An abbreviation for heating, ventilating and airconditioning.

**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.

**Illuminance** The luminous flux falling onto a unit area of surface.

**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.
Definitions

**Impervious** That which does not allow the passage of moisture. **Source:** Code

**Importance level** As specified in Clause A3 of the Building Code. **Source:** AS/VM C

**Incapacitated** State of physical inability to accomplish a specific task. **Source:** AS/VM C

**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. **Source:** 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. **Source:** AS/VM E1, G13

**Inspection point** A removable cap at drain level through which access may be made for cleaning and inspecting the drainage system. **Source:** AS/VM E1, G13

**Insulating material** A material that has a thermal conductivity of less than 0.07 W/mK. **Source:** AS/VM C, 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. **Source:** Code

**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. **Source:** 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,— **Source:** 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. **Source:** AS/VM G14

**Intermediate floor** Any upper floor within a firecell which because of its configuration provides an opening allowing smoke or fire to spread from a lower to an upper level within the firecell. **Source:** AS/VM C

**COMMENT:**
1. Upper floors within household units need not meet the specific fire safety requirements which apply to intermediate floors in all other situations.

2. 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.
### Definitions

<table>
<thead>
<tr>
<th>Definition</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. Household units occur only in risk groups SM and SH. Life safety provisions are governed by the limitations in permitted open path lengths.</td>
<td>Simple House</td>
</tr>
<tr>
<td>4. Risk groups SM, SI, CA, WB, WS and VP allow limited area intermediate floors of 20% or 40% of the floor area depending on other fire safety requirements. In other situations C/VM2 is to be used.</td>
<td>Simple House</td>
</tr>
<tr>
<td><strong>Internal wall</strong> A wall other than an <em>external wall</em>.</td>
<td>Simple House</td>
</tr>
<tr>
<td><strong>K</strong></td>
<td>AS/VM D1</td>
</tr>
<tr>
<td>Kerb ramp means a short ramp either cutting through a kerb or built up to the kerb.</td>
<td>AS/VM D1</td>
</tr>
<tr>
<td>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.</td>
<td>AS/VM E2</td>
</tr>
<tr>
<td><strong>COMMENT:</strong> A kick-out is used at the bottom of a capping or other flashing to deflect water away from the cladding below.</td>
<td>AS/VM D1</td>
</tr>
<tr>
<td><strong>L</strong></td>
<td>Simple House</td>
</tr>
<tr>
<td>Lead flashings Lead sheet flashings that:</td>
<td>Simple House</td>
</tr>
<tr>
<td>(a) comply with AS 1804, and</td>
<td>Simple House</td>
</tr>
<tr>
<td>(b) have a minimum unit mass of 17 kg/m².</td>
<td>Simple House</td>
</tr>
<tr>
<td>Life rating The fire resistance rating to be applied to elements of construction that allows movement of people from their location in a building to a safe place.</td>
<td>AS/VM C</td>
</tr>
<tr>
<td>Licensee A person holding a licence issued under the Radiation Protection Act 1965 and for the time being in force.</td>
<td>AS/VM F8</td>
</tr>
<tr>
<td>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.</td>
<td>BA04</td>
</tr>
<tr>
<td>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.</td>
<td>Simple House</td>
</tr>
<tr>
<td>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.</td>
<td>AS/VM C</td>
</tr>
<tr>
<td><strong>COMMENT:</strong> Typical limited area atrium buildings are small shopping malls, and motel complexes with a central atrium feature open to a number of floors.</td>
<td>AS/VM C</td>
</tr>
<tr>
<td>Lining The rigid sheet covering for a wall, ceiling or other interior surface.</td>
<td>AS/VM E2</td>
</tr>
<tr>
<td>Lintel A horizontal framing member spanning an opening in a wall.</td>
<td>Simple House</td>
</tr>
<tr>
<td>Loadbearing stud A stud in a loadbearing wall.</td>
<td>Simple House</td>
</tr>
<tr>
<td>Loadbearing wall A wall supporting vertical loading from a roof.</td>
<td>Simple House</td>
</tr>
<tr>
<td>Definition</td>
<td>Source</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------</td>
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</tr>
<tr>
<td><strong>Loaded dimension</strong> The loaded dimension of structural elements which</td>
<td>Simple House</td>
</tr>
<tr>
<td>support other members at right angles. Refer to [SH/AS1] Figure 5.2.2.</td>
<td></td>
</tr>
<tr>
<td><strong>Lock-out</strong> The safety shut down condition of the control system such</td>
<td>AS/VM-C, G11</td>
</tr>
<tr>
<td>that re-start cannot be accomplished without manual resetting.</td>
<td></td>
</tr>
<tr>
<td><strong>Luminance</strong> The luminous intensity of a surface in a given direction per</td>
<td></td>
</tr>
<tr>
<td>unit projected area (candela m²)</td>
<td>AS/VMF8</td>
</tr>
<tr>
<td><strong>M</strong></td>
<td>Simple House</td>
</tr>
<tr>
<td>A steel bolt of the stated diameter in millimetres.</td>
<td></td>
</tr>
<tr>
<td><strong>Main private stairway</strong> A <em>private stairway</em> intended to provide access</td>
<td>AS/VMD1</td>
</tr>
<tr>
<td>to and between frequently used spaces such as living areas, kitchens and</td>
<td></td>
</tr>
<tr>
<td>garages, and includes all exterior <em>private stairways</em>.</td>
<td></td>
</tr>
<tr>
<td><strong>Masonry tiles</strong> Clay or concrete tile roof cladding.</td>
<td>AS/VME2</td>
</tr>
<tr>
<td><strong>Masonry veneer</strong> Clay or concrete block veneer cladding.</td>
<td>AS/VME2</td>
</tr>
<tr>
<td><strong>Means of escape from fire</strong>, in relation to a <strong>building</strong> that has a</td>
<td>BA04</td>
</tr>
<tr>
<td>floor area,—</td>
<td></td>
</tr>
<tr>
<td>(a) means continuous unobstructed routes of travel from any part of the</td>
<td></td>
</tr>
<tr>
<td>floor area of that <strong>building</strong> to a place of safety, and</td>
<td></td>
</tr>
<tr>
<td>(b) includes all active and passive protection features required to warn</td>
<td></td>
</tr>
<tr>
<td>people of fire and to assist in protecting people from the effects of fire</td>
<td></td>
</tr>
<tr>
<td>in the course of their escape from the fire.</td>
<td></td>
</tr>
<tr>
<td>**COMMENT:**Means of escape include features providing visibility in escape routes complying with F6 and signs complying with F8</td>
<td></td>
</tr>
<tr>
<td><strong>Member span</strong> The clear distance between supports, measured along the</td>
<td>Simple House</td>
</tr>
<tr>
<td>member.</td>
<td></td>
</tr>
<tr>
<td><strong>Membrane</strong> A non-metallic material, usually synthetic, used as a fully</td>
<td>AS/VME2</td>
</tr>
<tr>
<td>supported roof cladding, deck surface or, in conjunction with other</td>
<td></td>
</tr>
<tr>
<td>claddings, as gutters or flashings.</td>
<td></td>
</tr>
<tr>
<td><strong>Minister</strong> means the Minister of the Crown who, under the authority of</td>
<td>BA04</td>
</tr>
<tr>
<td>a warrant or with the authority of the Prime Minister, is responsible for</td>
<td></td>
</tr>
<tr>
<td>the administration of the <strong>Building Act 2004</strong>.</td>
<td></td>
</tr>
<tr>
<td><strong>Minor private stairway</strong> A <em>private stairway</em> not on a main thoroughfare,</td>
<td>AS/VM D1</td>
</tr>
<tr>
<td>and intended to provide infrequent access to a single room which is not a</td>
<td></td>
</tr>
<tr>
<td>living area or kitchen.</td>
<td></td>
</tr>
<tr>
<td><strong>MSG</strong> Machine stress graded refers to timber that is initially sorted by</td>
<td>Simple House</td>
</tr>
<tr>
<td>machine, calibrated to NZS 3603. See also <strong>VSG</strong>.</td>
<td></td>
</tr>
<tr>
<td><strong>Multi-unit dwelling</strong> Applies to a <strong>building</strong> or use which contains</td>
<td>AS/VM C</td>
</tr>
<tr>
<td>more than one separate household or family.</td>
<td></td>
</tr>
<tr>
<td>**COMMENT:**For fire safety purposes each household unit is a separate</td>
<td></td>
</tr>
<tr>
<td>firecell.</td>
<td></td>
</tr>
</tbody>
</table>
### Definitions

<table>
<thead>
<tr>
<th>Definition</th>
<th>Source</th>
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<tbody>
<tr>
<td><strong>N</strong></td>
<td></td>
</tr>
<tr>
<td>Natural draught The flow produced by the tendency of warmed gases to rise.</td>
<td>AS/VM G4</td>
</tr>
<tr>
<td>Natural hazard has the meaning given to it by section 71 of the Building Act 2004.</td>
<td>BA04</td>
</tr>
</tbody>
</table>

Section 71(3) states:

“(3) In this section and sections 72 to 74, natural hazard means any of the following:

(a) erosion (including coastal erosion, bank erosion, and sheet erosion):

(b) falling debris (including soil, rock, snow, and ice):

(c) subsidence:

(d) inundation (including flooding, overland flow, storm surge, tidal effects, and ponding):

(e) slippage.”

<table>
<thead>
<tr>
<th>Definition</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Net openable area is the area of windows or doors or other opening measured on the face dimensions of the openable building element concerned.</td>
<td>AS/VM G4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Definition</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Network utility operator means a person who—</td>
<td>BA04</td>
</tr>
</tbody>
</table>

(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

<table>
<thead>
<tr>
<th>Definition</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nogging See dwang</td>
<td>Simple House</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Definition</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal pile width The least width of a pile in side view and is equal to the diameter in round piles.</td>
<td>AS/VM B1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Definition</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-combustible Materials shall be classified as non-combustible or combustible when tested to: AS 1530 – Part 1.</td>
<td>AS/VM B1, C</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Definition</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-loadbearing stud A stud in a non-loadbearing wall.</td>
<td>Simple House</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Definition</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-loadbearing wall A wall other than a loadbearing wall.</td>
<td>Simple House</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Definition</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
<td>AS/VM G12</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Definition</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nosing The rounded projecting edge of a stair tread.</td>
<td>AS/VM D1, F4</td>
</tr>
</tbody>
</table>
### Definitions

<table>
<thead>
<tr>
<th>Definition</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Notice to fix</strong> has the meaning given to it by section 164(2) of the Building Act 2004.</td>
<td>BA04</td>
</tr>
<tr>
<td>Section 164(2) states:</td>
<td></td>
</tr>
</tbody>
</table>
| “(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. | AS/VM C |
| **COMMENT:** A *notional boundary* may be located anywhere between the two *buildings* on the same property using the following rules: |        |
| 1. The *notional boundary* is assumed to exist in the space between the *buildings* and is positioned so that one of the *buildings* would comply with the provisions for space separation having regard to the amount of its *unprotected area*. In practice, if one of the *buildings* is existing, the position of the *boundary* will be set by the space separation factors for that *building*. |        |
| 2. The siting of the new *building*, or the second *building* if both are new, can then be checked to see that it also complies, using the *notional boundary* as the *relevant boundary* for the second *building*. (Once the *notional boundary* is set for the first *building* it becomes the *relevant boundary* for the second (new) *building* and does not move). |        |
| **NUO system** means a system owned or controlled by a *network utility operator*. | BA04   |
| **NZBC** New Zealand Building Code.                                         | AS/VM E2 |
| **O**                                                                      |        |
| **Occupant load** The greatest number of people likely to occupy a particular space within a *building*. It is determined by: | AS/VM C, F6, F7 |
| a) dividing the total floor area by the m² per person (occupant density) for the activity being undertaken, or  
  b) for sleeping areas, counting the number of sleeping (or care) spaces, or  
  c) for fixed seating areas, counting the number of seats. |        |
| **COMMENT:** See Paragraphs 1.4.5 (for fixed seating) and 1.4.6 (for sleeping areas) of *C/AS1–C/AS7* where appropriate |        |
| **Occupied space** Any space within a *building* in which a *person* will be present from time to time during the *intended use* of the *building*. | Code   |
| **Opacity of smoke** Ratio of incident light intensity to transmitted light intensity through smoke under specified conditions. | AS/VM C |
| **Open path** That part of an *escape route* (including *dead ends*) within a *firecell* where occupants may be exposed to *fire* or smoke while making their escape. | Code   |
**Open space** includes land on which there are, and will be, no buildings and which has no roof over any part of it other than overhanging eaves.

**Open vented storage water heater** A water heater incorporating a vent pipe which is permanently open to the atmosphere.

**Optical density of smoke** Measure of the attenuation of a light beam passing through smoke expressed as the logarithm to the base 10 of the opacity of smoke.

**Other property**—
(a) means any land or buildings, or part of any land or buildings, that are—
(i) not held under the same allotment; or
(ii) not held under the same ownership; and

(b) includes a road

**Outdoor air** Air as typically comprising by volume:
(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 surface water or foul water from the drainage system. For foul water, the outfall may include a sewer or a septic tank. For surface water, the outfall may include a natural water course, kerb and channel, or soakage system.

**Over-pressure protection** Devices preventing the pressure in piping or appliances from exceeding a predetermined value.

**Owner**, in relation to land and any buildings on the land,—
(a) means the person 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 owner of the fee simple of the land; and
(ii) any person 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.

**P**

**Parallel flashing** A roof flashing that runs along the roof slope, parallel to the roof cladding profile. Also known as a longitudinal flashing.

**Parapet** A timber-framed wall that extends above the level of the roof cladding. Refer also Enclosed balustrade.

**Passive stack ventilator** A system including a ventilation shaft which uses natural draught to ventilate spaces.

**Penetration** A pipe, cable or duct passing through an opening in a fire separation.
Definitions

**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.

**People with disabilities** People whose ability to use buildings is affected by mental, physical, hearing or sight impairment.

**Performance criteria** in relation to a building, means those qualitative or quantitative criteria that the building is required to satisfy in performing its functional requirement.

**Permanent opening** An opening which cannot be closed, this implies that doors, windows etc are NOT permanent openings, although door undercuts are.

**Person includes**—
- (a) the Crown; and
- (b) a corporation sole; and
- (c) a body of persons (whether corporate or unincorporate)

**Person with a disability** means a person who has an impairment or a combination of impairments that limits the extent to which the person 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.

**Piping system** An assembly of pipes, pipe fittings, gaskets, bolting and pipe supports.

**Pitch line** The line joining the leading edge or nosings (if any) of successive stair treads within a single flight of stairs.

**Place of safety** means either—

- a safe place; or
- a place that is inside a building and meets the following requirements:
  - i) the place is constructed with fire separations that have fire resistance sufficient to withstand burnout at the point of the fire source; and
  - ii) the place is in a building that is protected by an automatic fire sprinkler system that complies with NZS 4541 or NZS 4515 as appropriate to the building’s use; and
  - iii) the place is designed to accommodate the intended number of persons at a design occupant density of not less than $1.0 \text{ m}^2$ per person; and
  - iv) the place is provided with sufficient means of escape to enable the intended number of persons to escape to a safe place that is outside a building.
**Definition**

**Plans and specifications—**

(a) means the drawings, specifications, and other documents according to which a building is proposed to be constructed, altered, demolished, or removed; and

(b) includes the proposed procedures for inspection during the construction, alteration, demolition, or removal of a building; and

(c) in the case of the construction or alteration of a building, also includes—

(i) the intended use of the building; and

(ii) the specified systems that the applicant for building consent considers will be required to be included in a compliance schedule required under section 100; and

(iii) the proposed procedures for inspection and routine maintenance for the purposes of the compliance schedule for those specified systems.

**Plate** A timber member supported by a foundation or studs to support and distribute the load from floors, walls, roofs or ceilings. See bottom plate, top plate.

**Plumbing system** Pipes, joints and fittings laid above ground and used for the conveyance of foul water to the foul water drain, and includes vent pipes.

**Post** An isolated vertical member acting as a support.

**Potable (and potable water)** Water that is suitable for human consumption.

**Potential impact classification** is related to the consequence (effects) of the dam failing, if it should release its stored contents. Consequences include loss of life, socio-economic, financial and environmental.

**Prescribed electrical work** has the meaning given to it by section 2(1) of the Electricity Act 1992.

**Pre-travel activity time** Time period after an alarm or fire cue is transmitted and before occupants first travel towards an exit.

**Primary element** A building element providing the basic load bearing capacity to the structure, and which if affected by fire may initiate instability or premature structural collapse.

**COMMENT:**

Suspended floors in multi-storey buildings are primary elements.

**Principal user** A member of the primary group for which a building was constructed, and therefore explicitly excludes persons or groups of persons providing care or control of that principal user group.

**Privacy** The situation of being withdrawn from view.

**Private stairway** A stairway used, or intended to be used, by the occupants of a single household unit.

**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.
**Definitions**

<table>
<thead>
<tr>
<th>Definition</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Producer statements</strong> are formal statements supplied by or on behalf of</td>
<td>HB</td>
</tr>
<tr>
<td>(i) an applicant for a building consent, or</td>
<td></td>
</tr>
<tr>
<td>(ii) by or on behalf of a person who has carried out building work.</td>
<td></td>
</tr>
<tr>
<td>that can be accepted by a building consent authority as verification that</td>
<td></td>
</tr>
<tr>
<td>certain work will be or has been carried out in accordance with nominated</td>
<td></td>
</tr>
<tr>
<td>performance requirements of the Building Code.</td>
<td></td>
</tr>
<tr>
<td><strong>COMMENT:</strong> Although no longer expressly referred to in the Building Act</td>
<td>HB</td>
</tr>
<tr>
<td>2004, these could be accepted and considered as part of the plans or</td>
<td></td>
</tr>
<tr>
<td>specifications.</td>
<td></td>
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<tr>
<td><strong>Product certificate</strong> means a certificate issued under section 269 of</td>
<td>HB</td>
</tr>
<tr>
<td>the Building Act 2004 that a building consent authority must accept as</td>
<td></td>
</tr>
<tr>
<td>establishing compliance with the Building Code.</td>
<td></td>
</tr>
<tr>
<td><strong>Product certification accreditation body</strong> means the person referred to</td>
<td>BA04</td>
</tr>
<tr>
<td>in section 261(2) of the Building Act 2004.</td>
<td></td>
</tr>
<tr>
<td><strong>Property</strong> includes land, buildings, and goods; but does not include</td>
<td>BA04</td>
</tr>
<tr>
<td>incorporeal forms of property.</td>
<td></td>
</tr>
<tr>
<td><strong>Property rating</strong> The fire resistance rating to be applied to elements</td>
<td>AS/VM</td>
</tr>
<tr>
<td>of construction that allows for protection of other property.</td>
<td>C</td>
</tr>
<tr>
<td><strong>Proprietary fasteners</strong> Proprietary fasteners may be used where the</td>
<td>Simple House</td>
</tr>
<tr>
<td>fixing capacity of fixings are specifically identified in this SH/AS1</td>
<td></td>
</tr>
<tr>
<td>Acceptable Solution. Manufacturers of a timber connector or fixing shall</td>
<td></td>
</tr>
<tr>
<td>provide the following information on each package of fixings, or on a</td>
<td></td>
</tr>
<tr>
<td>securely attached label:</td>
<td></td>
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<tr>
<td>(a) the name, or registered trade name, or make and address of</td>
<td></td>
</tr>
<tr>
<td>manufacturer</td>
<td></td>
</tr>
<tr>
<td>(b) the materials used in manufacture including fasteners and</td>
<td></td>
</tr>
<tr>
<td>corrosion protection</td>
<td></td>
</tr>
<tr>
<td>(c) the load capacity of the timber connector or fixing in kN determined</td>
<td></td>
</tr>
<tr>
<td>in accordance with the following equation:</td>
<td></td>
</tr>
<tr>
<td>[ R = \varphi \times Q_k \times n \times k ]</td>
<td></td>
</tr>
<tr>
<td>Where:</td>
<td></td>
</tr>
<tr>
<td>R = connector capacity in kN</td>
<td></td>
</tr>
<tr>
<td>( \varphi ) = capacity reduction factor from NZS 3603</td>
<td></td>
</tr>
<tr>
<td>( Q_k ) = characteristic value obtained by test in accordance with</td>
<td></td>
</tr>
<tr>
<td>BRANZ Evaluation Method EM1 or AS/NZS 2699: Part 2 as appropriate</td>
<td></td>
</tr>
<tr>
<td>n = number of tested elements making up the complete joint</td>
<td></td>
</tr>
<tr>
<td>k = modification factors from NZS 3603 (Section 4) as appropriate</td>
<td></td>
</tr>
<tr>
<td>to specific application.</td>
<td></td>
</tr>
<tr>
<td>(d) fastener’s requirements</td>
<td></td>
</tr>
<tr>
<td>(e) details of intended use</td>
<td></td>
</tr>
<tr>
<td>(f) durability in accordance with Paragraph 2.5.4.</td>
<td></td>
</tr>
<tr>
<td><strong>Protected shaft</strong> A space, other than a safe path, enclosed by fire</td>
<td>AS/VM</td>
</tr>
<tr>
<td>separations or external walls used to house building services, lifts, or</td>
<td>C</td>
</tr>
<tr>
<td>conveyors which pass from one firecell to another.</td>
<td></td>
</tr>
</tbody>
</table>
Definition

Purlin A horizontal member laid to span across rafters or trusses, and to which the roof cladding is attached.

Purlin Includes tile batten. A horizontal member laid to span across rafters or trusses and to which the roof cladding is attached.

Purpose group The classification of spaces within a building according to the activity for which the spaces are used.

R

R A plain round reinforcing bar of the stated diameter in millimetres.

R-value The common abbreviation for describing the values of both thermal resistance and total thermal resistance.

Radiocommunications has the same meaning as in section 2(1) of the Radiocommunications Act 1989.

Rafters A framing timber, normally parallel to the slope of the roof, providing support for sarking, purlins or roof cladding.

Railway line has the meaning ascribed to it by section 2 of the Transport Services Licensing Act 1989.

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“.
Definitions

**Reasonably visible**, in relation to a *specified feature*, and for the purposes of Clause F6, means that the *specified feature* is visible to a person who—

(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).

**Reflectance** The ratio of the flux reflected from a surface to the flux incident on it.

**Regional authority** means—

(a) a *regional council*; or

(b) a *unitary authority*

**Regional council** has the meaning given to it by section 5(1) of the *Local Government Act 2002*.

**Registrar** has the meaning given to it by section 282 of the *Building Act 2004*.

**Regulations** means regulations in force under the *Building Act 2004*.

**Regulator** A device which automatically regulates the pressure or volume of gas passing through it to a predetermined level.

**Reinforcement** Any form of reinforcing rod, bar or mesh that complies with the relevant requirements of NZS 3109.

**Relevant boundary** Relevant boundary means the *boundary* of an *allotment* that is *other property* in relation to the *building* in question and from which is measured the separation between the *building* and that *other property*; and for the *external wall* of any *building*, the relevant boundary is the nearest of—

(a) a *boundary* of a freehold *allotment*, except that if the *other property* is a *road*, *railway line*, or public *open space*, the relevant boundary is the *boundary* on the far side of that *other property*; or

(b) a *boundary* of a cross-lease or a *company lease* or a licence, except that if the *other property* is *open space* to which the lessee or licensee of the *building* in question has an exclusive right of access and occupation or to which 2 or more occupiers of the *building* in question have rights of access and occupation, the relevant boundary is the *boundary* on the far side of that *other property*; or

(c) a *boundary* shown on a *unit plan* (but excluding a *boundary* between a principal unit and its accessory unit), except that if the *other property* is *open space* and is common property, the relevant boundary is the *boundary* on the far side of that *other property*.

**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*.
### Definitions

<table>
<thead>
<tr>
<th>Definition</th>
<th>Source</th>
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</thead>
<tbody>
<tr>
<td>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.</td>
<td>AS/VM G13</td>
</tr>
<tr>
<td><strong>Relief vent</strong> 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.</td>
<td>AS/VM C</td>
</tr>
<tr>
<td><strong>Required safe egress time (RSET)</strong> Time required for escape. This is the calculated time period required for an individual occupant to travel from their location at the time of ignition to a place of safety.</td>
<td>AS/VM C</td>
</tr>
<tr>
<td><strong>Reservoir</strong> 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.</td>
<td>DG</td>
</tr>
<tr>
<td><strong>Response Time Index (RTI)</strong> The measure of the reaction time to a fire phenomenon of the sensing element of a fire safety system.</td>
<td></td>
</tr>
<tr>
<td><strong>Ribbon board</strong> Includes soffit plate. A horizontal framing timber secured to, or checked into, the edges of studs and supporting eaves bearers.</td>
<td>Simple House</td>
</tr>
<tr>
<td><strong>Ridge beam</strong> A single beam that supports rafters of a skillion roof.</td>
<td>Simple House</td>
</tr>
<tr>
<td><strong>Risk group</strong> The classification of a building or firecells within a building according to the use to which it is intended to be put.</td>
<td>AS/VM C</td>
</tr>
<tr>
<td><strong>Risk group A</strong>, for the purposes of performance F6.3.4 and performance F6.3.5, means buildings—&lt;br&gt; (a) whose occupants are required to remain in the building until the main lighting system is restored; or&lt;br&gt; (b) whose evacuation time is longer than 90 minutes.</td>
<td>Code</td>
</tr>
<tr>
<td><strong>Risk group B</strong>, for the purposes of performance F6.3.4 and performance F6.3.5, means buildings—&lt;br&gt; (a) whose evacuation time is 30 minutes or longer but not longer than 90 minutes; or&lt;br&gt; (b) whose occupant load is more than 1 000.</td>
<td>Code</td>
</tr>
<tr>
<td><strong>Risk group C</strong>, for the purposes of performance F6.3.4, means buildings not in risk group A or risk group B.</td>
<td>Code</td>
</tr>
<tr>
<td><strong>Reservoir capacity</strong> Total or gross storage capacity of the reservoir at full supply level.</td>
<td>DG</td>
</tr>
<tr>
<td><strong>Risk matrix</strong> 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.</td>
<td>AS/VM E2</td>
</tr>
</tbody>
</table>
### Definitions

<table>
<thead>
<tr>
<th>Definition</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Risk score</strong> An aggregated numerical score for a proposed building as defined by E2/AS1. The risk score is determined by completion of the risk matrix.</td>
<td>AS/VM E2</td>
</tr>
<tr>
<td><strong>Road</strong> 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.</td>
<td>AS/VM C/LGA</td>
</tr>
<tr>
<td><strong>Roddling point</strong> A removable cap at ground level through which access may be made for cleaning and inspecting the drainage system.</td>
<td>AS/VM E1, G13</td>
</tr>
<tr>
<td><strong>Road</strong> That part of a building having its upper surface exposed to the outside and at an angle of 60° or less to the horizontal.</td>
<td>AS/VM E2</td>
</tr>
<tr>
<td><strong>Road</strong> 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.</td>
<td>Simple House</td>
</tr>
<tr>
<td><strong>Road underlay</strong> An absorbent permeable building paper that absorbs or collects condensation or water in association with roof cladding performance.</td>
<td>AS/VM E2</td>
</tr>
<tr>
<td><strong>Road underlay</strong> An absorbent, permeable paper that absorbs or collects condensation or water that may penetrate the roof cladding.</td>
<td>Simple House</td>
</tr>
<tr>
<td>The roof underlay shall have the properties in Table 23 of the Acceptable Solution E2/AS1 for Building Code Clause E2 External Moisture:</td>
<td></td>
</tr>
<tr>
<td>(a) absorbency of 100 g/m² or greater</td>
<td></td>
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<tr>
<td>(b) vapour resistance 7 MN s/g or less</td>
<td></td>
</tr>
<tr>
<td>(c) water resistance of 100 mm or greater</td>
<td></td>
</tr>
<tr>
<td>(d) pH of extract of between 6.0 and 9.0</td>
<td></td>
</tr>
<tr>
<td>(e) shrinkage no more than 0.5%</td>
<td></td>
</tr>
<tr>
<td>(f) mechanical edge tear and tensile strength to AS/NZS 4200.</td>
<td></td>
</tr>
<tr>
<td><strong>Room-sealed appliance</strong> An appliance designed so that air for combustion neither enters from, nor combustion products enter into, the room in which the appliance is located.</td>
<td>CD-G4</td>
</tr>
<tr>
<td><strong>Running bonds</strong> See bond</td>
<td>Simple House</td>
</tr>
<tr>
<td><strong>S</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Saddle flashing</strong> A flashing used to weatherproof the junction between a horizontal and vertical surface.</td>
<td>AS/VM E2</td>
</tr>
<tr>
<td><strong>Safe path</strong> 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.</td>
<td>Code</td>
</tr>
<tr>
<td><strong>Safe place</strong> A place, outside of and in the vicinity of a single building unit, 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 unit.</td>
<td>AS/VM C</td>
</tr>
<tr>
<td><strong>COMMENT:</strong> The Fire Safety and Evacuation of Buildings Regulations 2006 use the term 'place of safety' and allow the place of safety to be within the building provided that it is protected with a sprinkler system.</td>
<td></td>
</tr>
<tr>
<td><strong>Safety colour (green, red or yellow)</strong> A colour of specified properties to which a safety meaning is attributed.</td>
<td>AS/VM F8</td>
</tr>
<tr>
<td>Definition</td>
<td>Source</td>
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<td>--------------------------------------------------------------------------</td>
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<tr>
<td><strong>Safety glass</strong> means a glass so treated or combined with other materials as to reduce the likelihood of injury to <em>persons</em> when it is cracked or broken.</td>
<td>AS/VM F2</td>
</tr>
<tr>
<td><strong>Safety shut-off system</strong> 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.</td>
<td>AS/VM G10</td>
</tr>
<tr>
<td><strong>Safety sign</strong> A particular type of sign which comprises a geometric form and a <em>safety colour</em>, together with a <em>safety symbol</em> or text (that is, words, letters, numbers or a combination of these) and gives a particular safety message.</td>
<td>AS/VM F8</td>
</tr>
<tr>
<td><strong>Safety symbol</strong> means a graphic symbol used in a <em>safety sign</em>.</td>
<td>AS/VM F8</td>
</tr>
<tr>
<td><strong>Sanitary appliance</strong> An appliance which is intended to be used for <em>sanitation</em>, but which is not a <em>sanitary fixture</em>. Included are machines for washing dishes and clothes.</td>
<td>Code</td>
</tr>
<tr>
<td><strong>Sanitary fixture</strong> Any <em>fixture</em> which is intended to be used for <em>sanitation</em>.</td>
<td>Code</td>
</tr>
<tr>
<td><strong>Sanitation</strong> 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.</td>
<td>Code</td>
</tr>
<tr>
<td><strong>Scaffolding</strong> used in the course of the <em>construction</em> process, means any structure, framework, swinging stage, suspended <em>scaffolding</em>, 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 <em>construction</em> 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 <em>construction</em>, erection, or use of <em>scaffolding</em>.</td>
<td>BA04</td>
</tr>
<tr>
<td><strong>Scupper</strong> An opening in a <em>parapet</em> or <em>enclosed balustrade</em> to allow water to drain into a rainwater head.</td>
<td>AS/VM E2</td>
</tr>
<tr>
<td><strong>Sealant</strong> A flexible neutral cure sealant for gap filling and weatherproofing that complies with:</td>
<td>Simple House</td>
</tr>
<tr>
<td>(a) Type F, Class 20 LM or 25 LM of ISO 11600, or</td>
<td></td>
</tr>
<tr>
<td>(b) low modulus Type II Class A of Federal Specification TT-S-00230C.</td>
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</tr>
<tr>
<td><strong>Secondary element</strong> A <em>building element</em> not providing load bearing capacity to the structure and if affected by <em>fire</em>, instability or collapse of the <em>building</em> structure will not occur.</td>
<td>AS/VM B2, C</td>
</tr>
<tr>
<td><strong>Secondary flow path</strong> The path over which <em>surface water</em> will follow if the drainage system becomes overloaded or inoperative.</td>
<td>AS/VM E1</td>
</tr>
<tr>
<td><strong>Secondary private stairway</strong> A <em>private stairway</em> other than a <em>main</em> or minor <em>private stairway</em>, intended to provide access to another floor containing only bedrooms, bathroom or similar accommodation.</td>
<td>AS/VM D1</td>
</tr>
<tr>
<td><strong>Separating element</strong> Barrier that exhibits fire <em>integrity</em>, <em>structural adequacy</em>, thermal <em>insulation</em>, or a combination of these for a period of time under specified conditions (in a fire resistance test).</td>
<td></td>
</tr>
<tr>
<td><strong>Service ramp</strong> 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.</td>
<td>AS/VM D1</td>
</tr>
</tbody>
</table>
Definitions

**Service stairway** means a *stairway* 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.

**Sewer** A *drain* that is under the control of, or maintained by, a *network utility operator*.

**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.

**Simple house** A house that is described in Section 1 of this [SH/AS1] Simple House Acceptable Solution.

**Sitework** means work on a *building site*, including earthworks, preparatory to, or associated with the *construction, alteration*, demolition, or removal of a *building*.

**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.

**Smokecell** A space within a *building* which is enclosed by an envelope of smoke separations, or external walls, roofs, and floors.

**Smoke control door** A *doorset* that complies with Appendix C, C6.1.2 of C/AS1–C/AS6.

**Smoke lobby** That portion of an *escape route* within a *firecell* that precedes a safe path or an *escape route* through an adjoining *building* which is protected from the effects of smoke by smoke separations.

**Smoke production rate** Amount of smoke produced per unit time in a *fire* or fire test.

**Smoke separation** Any *building element* able to prevent the passage of smoke between two spaces. Smoke separations shall:

a) Be a smoke barrier complying with BS EN 12101 Part 1, or

b) Consist of rigid *building elements* capable of resisting without collapse:

   i) a pressure of 0.1 kPa applied from either side, and

   ii) self weight plus the intended vertically applied live loads, and

   c) Form an imperforate barrier to the spread of smoke, and

   d) Be of non-combustible construction, or achieve a *FRR* of 10/10/-, except that non-fire resisting glazing may be used if it is toughened or laminated safety glass.

**COMMENT:**

The pressure requirement is to ensure rigidity and is not a smoke leakage requirement.

Walls and floors, whether constructed of sheet linings fixed to studs or joists, or of concrete, glazing, metal or fired clay, need only be inspected by someone experienced in building construction to judge whether the construction is tight enough to inhibit the passage of smoke.

Item d) is intended to ensure that the smoke separation will continue to perform as an effective barrier when exposed to *fire* or smoke for a short period during fire development.
<table>
<thead>
<tr>
<th>Definition</th>
<th>Source</th>
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</thead>
<tbody>
<tr>
<td>There is no requirement for <em>smoke control doors</em> or other closures in <em>smoke separations</em> to meet the provisions of item d)</td>
<td></td>
</tr>
<tr>
<td><strong>Socket outlet</strong> 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.</td>
<td>AS/VM G2</td>
</tr>
<tr>
<td><strong>Soffit bearer</strong> See <em>eaves bearer</em>.</td>
<td>Simple House</td>
</tr>
<tr>
<td><strong>Soffit plate</strong> See <em>ribbon board</em>.</td>
<td>Simple House</td>
</tr>
<tr>
<td><strong>Soft edge</strong> A compatible soft edging seamed onto <em>flashings</em> to provide closure to <em>profiled cladding</em>.</td>
<td>AS/VM E2</td>
</tr>
<tr>
<td><strong>Soil fixture</strong> A <em>sanitary fixture</em> 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.</td>
<td>AS/VM G1, G13</td>
</tr>
<tr>
<td><strong>Sound transmission class (STC)</strong> 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.</td>
<td>Code</td>
</tr>
<tr>
<td><strong>Spacing or spaced</strong> The distance at which members are spaced, measured centre to centre.</td>
<td>Simple House</td>
</tr>
<tr>
<td><strong>Spans</strong> See <em>member span</em> and <em>support span</em>.</td>
<td>Simple House</td>
</tr>
<tr>
<td><strong>Specific design</strong> Design and detailing for compliance with the <em>Building Code</em>, of a proposed part or parts of a <em>building</em> which are not shown in this Acceptable Solution.</td>
<td>AS/VM E2</td>
</tr>
<tr>
<td><strong>Specific design</strong> Design and detailing of a proposed <em>building</em> or parts of a <em>building</em>, demonstrating compliance with the Building Code, that shall be provided to the <em>building consent authority</em> for assessment and approval as part of the <em>building consent</em> process. <em>Buildings</em>, or parts of <em>buildings</em>, requiring <em>specific design</em> are beyond the scope of the <em>Simple House Acceptable Solution</em>.</td>
<td>Simple House</td>
</tr>
<tr>
<td><strong>Specific extinction area of smoke</strong> Extinction area of smoke produced by a test specimen in a given time period, divided by the mass lost from the test specimen in the same time period.</td>
<td>AS/VM C</td>
</tr>
<tr>
<td><strong>Specified features</strong>, for the purposes of Clause F6, means the following:</td>
<td>Code</td>
</tr>
<tr>
<td>(a) <em>building elements</em> that may act as obstructions:</td>
<td></td>
</tr>
<tr>
<td>(b)safety features required under clauses of the <em>Building Code</em> other than Clause F6 (for example, <em>handrails</em> required under Clause D1):</td>
<td></td>
</tr>
<tr>
<td>(c)changes in direction:</td>
<td></td>
</tr>
<tr>
<td>(d)stairs and ramps:</td>
<td></td>
</tr>
<tr>
<td>(e)escape doors:</td>
<td></td>
</tr>
<tr>
<td>(f)entries to a <em>safe place</em>.</td>
<td></td>
</tr>
</tbody>
</table>
Definitions

<table>
<thead>
<tr>
<th>Definition</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Specified intended life</strong> has the meaning given to it by section 113(3) of the Building Act 2004.</td>
<td>BA04</td>
</tr>
<tr>
<td>Section 113(3) states:</td>
<td></td>
</tr>
<tr>
<td>“(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.”</td>
<td></td>
</tr>
<tr>
<td><strong>Specified system—</strong></td>
<td>BA04</td>
</tr>
<tr>
<td>(a) means a system or feature that—</td>
<td></td>
</tr>
<tr>
<td>(i) is contained in a building; and</td>
<td></td>
</tr>
<tr>
<td>(ii) contributes to the proper functioning of the building (for example, an automatic sprinkler system); And</td>
<td></td>
</tr>
<tr>
<td>(iii) is declared by the Governor-General, by Order in Council, to be a specified system for the purposes of this Act; and</td>
<td></td>
</tr>
<tr>
<td>(b) includes a cable car.</td>
<td></td>
</tr>
<tr>
<td><strong>Spread of flame index</strong> (SFI) That index number for spread of flame which is determined according to the standard test method for measuring the properties of lining materials.</td>
<td>AS/VM C</td>
</tr>
<tr>
<td><strong>Spillway</strong> Weir, channel, conduit, tunnel, gate or other structure designed to permit discharges from the reservoir.</td>
<td>DG</td>
</tr>
<tr>
<td><strong>Stability</strong> In the context of fire protection is the support provided to a building element having a FRR, intended to avoid premature failure due to structural collapse as a result of applied load, dead and live loads or as a result of any additional loads caused by fire.</td>
<td>AS/VM C</td>
</tr>
<tr>
<td><strong>Stairway</strong> A series of steps or stairs with or without landings, including all necessary handrails and giving access between two different levels.</td>
<td>AS/VM C, D1</td>
</tr>
<tr>
<td><strong>Stainless steel flashings</strong> Stainless steel flashings shall be:</td>
<td>Simple House</td>
</tr>
<tr>
<td>(a) minimum thickness of 0.45 mm, and</td>
<td></td>
</tr>
<tr>
<td>(b) Type 304 or 316 stainless steel in accordance with Table 1 of ISO/TS 15510.</td>
<td></td>
</tr>
<tr>
<td><strong>Stanchion</strong> A connecting device, fixed into the structure of a building, that provides support for handrails, aerials and similar structures.</td>
<td>AS/VM E2</td>
</tr>
<tr>
<td><strong>Standards</strong> 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.</td>
<td>HB</td>
</tr>
</tbody>
</table>

**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.
## Definitions

<table>
<thead>
<tr>
<th>Definition</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Standard test</strong> A test method which is recognised as being appropriate for the fire protection properties being assessed.</td>
<td>AS/VM C</td>
</tr>
<tr>
<td><strong>Comment:</strong> A list of standard test methods is given in Appendix C of C/AS1–C/AS6.</td>
<td></td>
</tr>
<tr>
<td><strong>Standard year</strong> 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.</td>
<td>Code</td>
</tr>
<tr>
<td><strong>Statutory authority</strong> means an authority or organisation that has the statutory power to classify or register land or buildings for any purpose.</td>
<td>BA04</td>
</tr>
<tr>
<td><strong>Stopend</strong> A turn-up at the upper edge of profiled metal cladding, or at the end of gutters and some types of flashings.</td>
<td>AS/VM E2</td>
</tr>
<tr>
<td><strong>Comment:</strong> A stopend assists the control of moisture by ensuring any moisture reaching the edge of the roofing is deflected from further entry.</td>
<td></td>
</tr>
<tr>
<td><strong>Storage water heater</strong> A water tank with an integral water heater for the storage of hot water.</td>
<td>AS/VM G12</td>
</tr>
<tr>
<td><strong>Storey</strong> 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.</td>
<td>AS/VM E2</td>
</tr>
<tr>
<td><strong>Strength reduction factor</strong> The factor by which the ultimate strength is multiplied to obtain the design strength.</td>
<td>AS/VM B1</td>
</tr>
<tr>
<td><strong>Comment:</strong> NZS 4203: 1992 uses the terms ideal strength in place of ultimate strength, and dependable strength in place of design strength.</td>
<td></td>
</tr>
<tr>
<td><strong>Stretcher bonds</strong> See bond</td>
<td>Simple House</td>
</tr>
<tr>
<td><strong>Structural adequacy</strong> In the context of the standard test for fire resistance, is the time in minutes for which a prototype specimen has continued to carry its applied load within defined deflection limits.</td>
<td>AS/VM C</td>
</tr>
<tr>
<td><strong>Structural fire endurance rating (S)</strong> The fire resistance rating (FRR) intended to prevent fire spread or structural collapse for the complete burnout of the firecell.</td>
<td>AS/VM C</td>
</tr>
<tr>
<td><strong>Stucco</strong> A wall cladding system formed from reinforced solid plaster over a rigid or non-rigid backing.</td>
<td>AS/VM E2</td>
</tr>
<tr>
<td><strong>Stud</strong> A vertical framing timber.</td>
<td>AS/VM E2</td>
</tr>
</tbody>
</table>
**Definitions**

<table>
<thead>
<tr>
<th>Definition</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Suite</strong> A firecell providing residential accommodation for the exclusive use of one person 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.</td>
<td>AS/VM C, F7</td>
</tr>
</tbody>
</table>
| **COMMENT:**  
1. Bed numbers are limited to 6 in risk group SI or 12 in risk group SM in accordance with C/AS2 and C/AS3. 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 fire, would naturally assist others within the firecell to escape. The term *suite* does not apply to a group of bedrooms where each room is available to different “key-holders”. In some cases a *suite* may be a single bedroom. | |
| **Sump** A chamber which is installed in the drain and incorporates features to intercept and retain silt, gravel and other debris. | AS/VM E1 |
| **Supervise**, in relation to building work, means provide control or direction and oversight of the building work to an extent that is sufficient to ensure that the building work—  
(a) is performed competently; and  
(b) complies with the building consent under which it is carried out. | BA04 |
<p>| <strong>Support span</strong> A clear distance along a member between supports, measured in plan (horizontally). | Simple House |
| <strong>Surface finish</strong> The combination of a surface coating and substrate material on surfaces of building elements exposed to view. It can be an applied decorative coating or the uncoated building element itself. For interior surfaces the requirements are evaluated in terms of a Group Number. For exterior surfaces the requirements are evaluated in terms of rate of heat release as determined by Appendix C, Paragraph C6.1 of Acceptable Solutions C/AS6–C/AS7. | AS/VM C |
| <strong>Surface spread of flame</strong> Flame spread away from the source of ignition across the surface of a liquid or a solid. | AS/VM C |
| <strong>Surface water</strong> 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 drain, stream, river, lake or sea. | Code |
| <strong>T</strong> | |
| <strong>Tailing dam</strong> Dam constructed to retain tailings or other waste materials from mining or industrial operations. | DG |
| <strong>Tailpipe</strong> A device placed at the low point of a gas piping system to collect condensate, and from which the condensate may be removed. | AS/VM G10 |</p>
<table>
<thead>
<tr>
<th>Definition</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Territorial authority (TA)</strong> means a city council or district council named in Part 2 of Schedule 2 of the Local Government Act 2002; and—</td>
<td>BA04</td>
</tr>
<tr>
<td>(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</td>
<td></td>
</tr>
<tr>
<td>(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.</td>
<td></td>
</tr>
<tr>
<td><strong>Territorial authority</strong> 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.</td>
<td>Simple House</td>
</tr>
<tr>
<td><strong>Theatre</strong> 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.</td>
<td>AS/VM C, F4 (Sep 07)</td>
</tr>
<tr>
<td><strong>Thermal resistance</strong> 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.</td>
<td>Code</td>
</tr>
<tr>
<td><strong>Threshold</strong> A sill to an external door, or the floor under an internal door.</td>
<td>AS/VM D1</td>
</tr>
<tr>
<td><strong>Tile batten</strong> See purlin.</td>
<td>Simple House</td>
</tr>
<tr>
<td><strong>Top plate</strong> A plate placed over the top end of studs.</td>
<td>Simple House</td>
</tr>
<tr>
<td><strong>Total thermal resistance</strong> 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.)</td>
<td>AS/VM E3, G5</td>
</tr>
<tr>
<td><strong>Total wall area</strong>, in relation to a building, means the sum (expressed in square metres) of the following:</td>
<td>Code</td>
</tr>
<tr>
<td>(a) the wall area of the building; and</td>
<td>Simple House</td>
</tr>
<tr>
<td>(b) the area (expressed in square metres) of all vertical glazing in external walls of the building.</td>
<td></td>
</tr>
<tr>
<td><strong>Town gas</strong> A manufactured gas.</td>
<td>AS/VM G11</td>
</tr>
<tr>
<td><strong>Toxic environment</strong> An environment that contains contaminants that can contaminate the water supply in concentrations greater than those included in the New Zealand Drinking Water Standard 1995.</td>
<td>AS/VM G12</td>
</tr>
<tr>
<td><strong>Trade</strong> means any trade, business, industry, profession, occupation, activity of commerce, or undertaking relating to—</td>
<td>BA04</td>
</tr>
<tr>
<td>(a) the supply or acquisition of goods or services; or</td>
<td></td>
</tr>
<tr>
<td>(b) the acquisition of household units or any interest in land.</td>
<td></td>
</tr>
<tr>
<td>Definition</td>
<td>Source</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>-------------------------</td>
</tr>
<tr>
<td><strong>Transverse flashing</strong> A roof <em>flashing</em> that runs across the roof slope, at right angles to the roof <em>cladding</em> profile.</td>
<td>AS/VM E2</td>
</tr>
<tr>
<td><strong>Trap</strong> A chamber which is installed in the <em>drain</em> and incorporates features to intercept and retain floatable debris.</td>
<td>AS/VM E1</td>
</tr>
<tr>
<td><strong>Trapezoidal</strong> A type of profiled metal <em>cladding</em> with symmetrical or asymmetrical crests, with troughs between the crests.</td>
<td>AS/VM E2</td>
</tr>
<tr>
<td><strong>Travel distance</strong> Distance that is necessary for a person to travel from any point within a built environment to the nearest exit, taking into account the layout of walls, partitions and fittings.</td>
<td>AS/VM C (C/VM2)</td>
</tr>
<tr>
<td><strong>Travel distance</strong> The length of the <em>escape route</em> as a whole or the individual lengths of its parts, namely:</td>
<td>AS/VM C (C/AS1–C/AS6)</td>
</tr>
<tr>
<td>a) <em>open paths</em> and</td>
<td></td>
</tr>
<tr>
<td>b) <em>safe paths</em>.</td>
<td></td>
</tr>
<tr>
<td><strong>Trickle ventilator</strong> A controllable ventilation opening through the external envelope to the outside to provide background ventilation.</td>
<td>AS/VM G4</td>
</tr>
<tr>
<td><strong>Trimmer</strong> A member supporting the wall <em>framing</em> beneath, or over an opening in a <em>non-loadbearing</em> wall and carrying wind loads to the <em>trimmer studs</em>.</td>
<td>Simple House</td>
</tr>
<tr>
<td><strong>Trimmer stud</strong> A <em>stud</em> located on the side of an opening.</td>
<td>Simple House</td>
</tr>
<tr>
<td><strong>Trough profile</strong> A type of profiled metal <em>cladding</em> comprising vertical ribs with flat, or lightly profiled pans between the ribs. Also known as ribbed, secret fixed or tray <em>profile</em>.</td>
<td>AS/VM E2</td>
</tr>
<tr>
<td><strong>U</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Underlay</strong> The material used behind a <em>roof</em> or <em>wall</em> <em>cladding</em>. Refer <em>Wall underlay</em> and <em>Roof underlay</em>.</td>
<td>AS/VM E2</td>
</tr>
<tr>
<td><strong>Unisex facilities</strong> Facilities available for use by either sex.</td>
<td>AS/VM G1</td>
</tr>
<tr>
<td><strong>COMMENT:</strong> <em>Unisex facilities</em> may also be described as both gender facilities.</td>
<td></td>
</tr>
<tr>
<td><strong>Unitary authority</strong> has the meaning given to it by section 5(1) of the Local Government Act 2002.</td>
<td>BA04/LGA</td>
</tr>
<tr>
<td>Section 5(1) states: &quot;<strong>unitary authority</strong>&quot; 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&quot;</td>
<td></td>
</tr>
<tr>
<td><strong>Universal access</strong> Where elements and spaces are accessible to and usable by people of all ages and abilities to the greatest extent possible.</td>
<td>Simple House</td>
</tr>
</tbody>
</table>

**Amend 12**
**Oct 2011**

**Amend 11**
**Sep 2010**
Definitions

**Unprotected area** In relation to an *external wall* of a *building*, this means:

a) Any part of the *external wall* which is not *fire* rated or has less than the required *FRR*, and

b) Any part of the *external wall* which has combustible material more than 1.0 mm thick attached or applied to its external face, whether for cladding or any other purpose.

**COMMENT:**
*Unprotected area* includes non-*fire* rated windows, doors, or other openings, and non-*fire* rated *external wall construction*.

**uPVC flashings** uPVC *flashings* shall be a minimum of 0.75 mm thick and:

(a) comply with the requirements of the following Clauses of AS/NZS 4256: Part 2:

   i) 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.

**V**

**Valley board** A board laid to support a *valley gutter*.

**Valley gutter** A gutter running down the valley formed by the intersection of two pitched roof surfaces.

**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.

**Vapour barrier** Sheet material or coating having a low water-vapour transmission, and used to minimise water-vapour penetration in *buildings*.

(Upstream barriers are sometimes referred to as *damp-proof membranes*.)

**Vent line** A pipe or tube which conveys gas to a safe place outside the *building* from a gas pressure *regulator* relief valve.

**Vent pipe** A pipe for the purpose of protecting *water seals* that at its upper end is either open to the atmosphere or fitted with an *air admittance valve* and that at its lower end is connected to a *discharge pipe*.

**Verification Method** means a method by which compliance with the *Building Code* may be verified.

**Visibility** Maximum distance at which an object of defined size, brightness and contrast can be seen and recognised.

**VSG** Visual stress graded, refers to verified timber that is initially sorted visually in accordance with NZS 3603. See also *MSG*. 
**Wall** refer External wall.

Wall area, in relation to a building, means the area (expressed in square metres) of internally-exposed external walls, including any door openings, of the building.

**Wall bracing element** A section of wall that performs a bracing function.

**Wall underlay** An absorbent synthetic wrap used as part of the wall cladding system to assist the control of moisture by ensuring moisture which may occasionally penetrate the wall cladding is directed back to the exterior of the building.

The wall underlay shall have the properties in Table 23 of the Acceptable Solution 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 wall cladding system to assist the control of moisture by ensuring moisture which occasionally penetrates the wall cladding is directed back to the exterior of the building.

**Waste pipe** A discharge pipe that conveys the discharge from waste water fixtures to a gully trap.

**Waste water fixture** A sanitary fixture or sanitary appliance used to receive wastes, and which is not a soil fixture.

**Water heater** A device for heating water.

**Water main** A water supply pipe that is under the control, or maintained by a network utility operator.

**Waterproof and waterproofing** The complete and total resistance of a building element to the ingress of any moisture.

**Water seal** The depth of water that can be retained in a water trap.

**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.

**Water tank (vessel)** A covered fixed container for storing hot or cold water.

**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.
**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*.

**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.

**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.

**Wetwall** The exterior *cladding* on a wall with a *drained cavity*.

**Wharenui** A communal meeting house having a large open floor area used for both assembly and sleeping in the traditional Maori manner.

**Wind zone** Categorisation of wind force experienced on a particular site as determined in NZS 3604, Section 5.

**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

**Working day** means any day except—
(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.

**Yield** Mass of a combustion product generated during combustion divided by the mass loss of the test specimen.
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(Revised by Amendment 13)

This is a complete index for the New Zealand Building Code, Acceptable Solutions and Verification Methods

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(50 year return period)  
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