

New Zealand Building Code Handbook Third Edition

Prepared by the Department of Building and Housing

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

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



Department of Building and Housing PO Box 10-729, Wellington. Telephone 0800 242 243 Fax 04 494 0290

Email: info@dbh.govt.nz



Sales enquiries should be directed to: Customer Services, Victoria University Book Centre PO Box 12-337, Wellington, New Zealand Telephone 0800 370 370, (04) 463 5511 Fax (04) 463 5510

Email: dbh@vicbooks.co.nz www.vicbooks.co.nz

ISBN 0-477-01606-5

© Department of Building and Housing 2007

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

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



Handbook: Document History					
	Date	Alterations			
First published	July 1992				
Third edition	25 May 2007				
Note: Page numbers rela	ate to the document at the time of	Amendment and may not match page numbers in current document.			

Document Status

The most recent version of this document, as detailed in the Document History, is approved by the Chief Executive of the Department of Building and Housing. It is effective from 25 May 2007 and supersedes all previous versions of this document.

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



Preface

1.0 INTRODUCTION

- **1.1** This preface provides an introduction to building controls in New Zealand. This section shows the relationship between the New Zealand Building Code (the Building Code) and various other Provisions that ensure buildings in New Zealand are safe and healthy to use.
- **1.2** The preface provides a convenient user reference. However, legal interpretation must be based on the actual wording of the Building Act 2004 (the Building Act), and amendments and respective Building Regulations.

2.0 BUILDING CONTROL FRAMEWORK

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

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

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

BUILDING ACT 2004

BUILDING REGULATIONS

THE NEW ZEALAND BUILDING CODE

DBJECTIVE FUNCTIONAL REQUIREMENT PERFORMANCE



2.1 The Building Act 2004

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

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

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

2.1.1 Purpose

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

This means:

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

The purpose of the Building Act is:

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

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

2.1.2 Principles

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

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

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

The following is a summary of the Building Act principles.

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



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

2.1.3 Application

The Building Act applies to:

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

The Building Act does not cover:

- planning and resource management
- occupational safety and health.

2.1.4 Structure

The Building Act has five parts.

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

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

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

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

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



2.2 Building Regulations

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

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

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

- Building (Fee for Determinations)
 Regulations 2005
- 5. Building Levy Order 2005
- 6. Building (Accreditation of Building Consent Authorities) Regulations 2006
- 7. Building (Consent Authority Accreditation Fees) Regulations 2007

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

2.3 The New Zealand Building Code

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

2.3.1 Content

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

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

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

The Building Code is currently under review. Any changes to the current Building Code, and its supporting Compliance Documents, will take place from 2008 onwards. This Building Code Handbook will be updated once the review is complete.



2.3.2 Structure

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

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

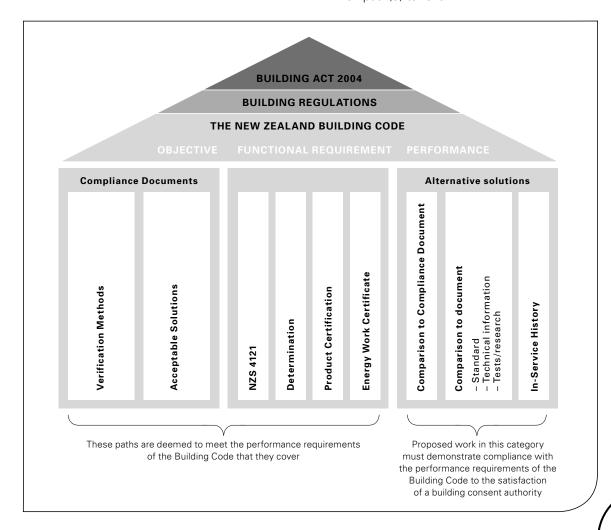
3.0 COMPLIANCE PATHS

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

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

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

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





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

3.1 Compliance Documents

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

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

There is one Compliance Document for each of the 35 technical clauses in the Building Code. Each Compliance Document contains at least a Verification Method or an Acceptable Solution, and usually has both. However, some Compliance Documents have more than one Verification Method or Acceptable Solution. For example, the Compliance Document for Clause B1 of the Building Code has two Verification Methods and three Acceptable Solutions.

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

- The Acceptable Solution for Clause E2
 External Moisture is known as E2/AS1.
- The Acceptable Solution for Clause G4 Ventilation is known as G4/AS1.
- The Acceptable Solution for Clause G1
 Personal Hygiene is known as G1/AS1.

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 (nondestructive tests, such as pipe pressure tests, are also included).

3.1.2 Acceptable Solutions

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

3.2 Product certification

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

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

3.3 Energy work certificate

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

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



3.4 New Zealand Standard NZS 4121

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

3.5 Determinations

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

A range of matters can be determined, including:

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

3.6 Alternative solutions

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

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

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

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

3.7 Producer statements

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

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



4.0 THE PARTIES AND THEIR RESPONSIBILITIES

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

4.1 The Department of Building and Housing (the Department)

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

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

4.2 Territorial authorities

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

They are responsible for:

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

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

4.3 Building consent authorities

Building consent authorities are responsible for:

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



4.4 Regional authorities

Regional authorities are responsible for:

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

4.5 Building owners

Building owners are responsible for:

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

- ensuring any specified systems in their building are performing and will continue to perform to the performance standards
- supplying the annual building warrant of fitness, if applicable
- notifying the territorial authority if a change of use, extension of life, or subdivision is proposed
- paying any fees as required by the Building Act.

4.6 Licensed building practitioners (LBPs)

Building designers and constructors are the owner's agents, so their role is not covered in the legislation. However, the Building Act does provide for a system of licensing building practitioners to improve control of and encourage better practices in building design and construction.

Licensed building practitioners are responsible for:

- carrying out or supervising restricted building work (from 30 November 2009)
- notifying building consent authorities of breaches of building consents (from 30 November 2009)
- issuing Form 12A certificates certifying the inspection, maintenance and reporting procedures stated in the compliance schedule have been fully complied with for the previous 12 months
- recommending the compliance schedule be amended to ensure the stated specified systems are performing, and will continue to perform, to the applicable performance standards.

Note: The LBP's role in regards to compliance schedules will continue to be carried out by independent qualified persons (IQPs) until November 2009. At the time of publication, licence classes for compliance schedule work are under development.



4.7 Past building control parties

4.7.1 The Building Industry Authority

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

4.7.2 Building certifier

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

5.0 BUILDING COMPLIANCE PROVISIONS

5.1 Project information memoranda (sections 31 to 39)

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

A PIM is a legal document and may have a notice attached to it requiring the owner to obtain other approvals or consents required by other legislation, such as the Resource Management Act 1991, prior to any work commencing on the project. For example, a PIM might include the fact that the height of a building may contravene a rule in the District Plan, meaning that before work commences, a separate resource consent is required from the territorial authority planning unit.

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

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

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

5.2 Building consents (sections 40 to 52)

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

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



5.2.1 Alterations (Section 112)

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

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

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

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

5.2.2 Change of use (sections 114 and 115)

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

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

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

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

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

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

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

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

5.2.3 Extension of life (sections 114 and 116)

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

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



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

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

5.2.4 Subdivision (sections 114 and 116A)

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

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

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

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

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

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

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

5.3 Code compliance certificate (sections 91 to 95)

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

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

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

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

5.4 Certificates of acceptance (sections 96 to 99)

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



A certificate of acceptance can be obtained in situations where:

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

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

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

5.5 Notices to fix (sections 163 to 168)

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

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

Some examples of where notices could be issued include:

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

5.6 Compliance schedules (sections 100 to 107)

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

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

5.7 Building warrants of fitness (sections 108 to 111)

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



5.8 Certificates for public use (section 363A)

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

5.9 Building certificate

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



Contents

	Р	age			Page
Α	General Provisions	19	G	Services and Facilities	63
A1	Classified uses	19	G1	Personal hygiene	63
A2	Interpretation	21	G2	Laundering	65
В	Stability	23	G3	Food preparation and prevention	66
B1	Structure	23		of contamination	
В2	Durability	26	G4	Ventilation	69
С	Fire Safety	29	G5	Interior environment	71
C1	Outbreak of fire	29	G6	Airborne and impact sound	73
C2	Means of escape	30	G7	Natural light	74
С3	Spread of fire	32	G8	Artificial light	75
C4	Structural stability during fire	35	G9	Electricity	76
D	Access	37	G10	Piped services	78
D1	Access routes	37	G11	Gas as an energy source	80
D2	Mechanical installations for access	42	G12	Water supplies	82
Ε	Moisture	45	G13	Foul water	84
E1	Surface water	45	G14	Industrial liquid waste	86
E2	External moisture	47	G15	Solid waste	88
E3	Internal moisture	48	Н	Energy Efficiency	90
F	Safety of Users	51	H1	Energy efficiency	90
F1	Hazardous agents on site	51			
F2	Hazardous building materials	52			
F3	Hazardous substances and processes	53			
F4	Safety from falling	55			
F5	Construction and demolition hazards	57			
F6	Lighting for emergency	59			
F7	Warning systems	60			
F8	Signs	61			

ARCHIVED



A General Provisions

A1 Classified Uses

FIRST SCHEDULE-continued

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).

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 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.



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.

ARCHIVED



B Stability

B1 Structure

16

Building Regulations 1992

1992/150

FIRST SCHEDULE—continued

Clause B1-STRUCTURE

Provisions

Provision

OBJECTIVE B1.1 The objective of this

- **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
- **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,



1992/150

Building Regulations 1992

17

FIRST SCHEDULE—continued

Provisions

- (d) Earth pressure,
- (e) Water and other liquids,
- (f) Earthquake,
- (g) Snow,
- (h) Wind,
- (i) Fire,
- (j) Impact,
- (k) Explosion,
- (l) Reversing or fluctuating effects,
- (m) Differential movement,
- (n) Vegetation,
- (o) Adverse effects due to insufficient separation from other *buildings*,
- (p) Influence of equipment, services, non-structural elements and contents,
- (q) Time dependent effects including creep and shrinkage, and
- (r) Removal of support.
- **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:

18

Building Regulations 1992

1992/150

FIRST SCHEDULE—continued

Provisions

- (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,
- (c) Ground loss and slumping.



Clause B2-DURABILITY

Provisions

OBJECTIVE

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

FUNCTIONAL REQUIREMENT

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

PERFORMANCE

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

- (a) The life of the building, being not less than 50 years, if:
 - (i) Those building elements (including floors, walls, and fixings) provide structural stability to the building, or
 - (ii) Those *building elements* are difficult to access or replace, or
 - (iii) Failure of those building elements to comply with the building code would go undetected during both normal use and maintenance of the building.
- (b) 15 years if:
 - (i) Those building elements (including the building envelope, exposed plumbing in the subfloor space, and in-built chimneys and flues) are moderately difficult to access or replace, or

Limits on application

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



Provisions

- (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.
- (c) 5 years if:
 - (i) The building elements
 (including services, linings, renewable protective coatings, and fixtures) are easy to access and replace, and
 - (ii) Failure of those building elements to comply with the building code would be easily detected during normal use of the building.
- **B2.3.2** Individual *building elements* which are components of a *building* system and are difficult to access or replace must either:
- (a) All have the same durability, or
- (b) Be installed in a manner that permits the replacement of building elements of lesser durability without removing building elements that have greater durability and are not specifically designed for removal and replacement.

ARCHIVED



C Fire Safety

C1 Outbreak of Fire

1992/150

Building Regulations 1992

21

FIRST SCHEDULE—continued

Clause C1—OUTBREAK OF FIRE

Provisions

OBJECTIVE

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

FUNCTIONAL REQUIREMENT

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

PERFORMANCE

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

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



Clause C2-MEANS OF ESCAPE

Provisions

OBJECTIVE

C2.1 The objective of this provision is to:

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

FUNCTIONAL REQUIREMENT

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

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

PERFORMANCE

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

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

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

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

C2.3.3 Escape routes shall be:

(a) Of *adequate* size for the number of occupants,



Provisions

(b) Free of obstruction in the direction of escape,

- (e) Of length appropriate to the mobility of the people using them,
- (d) Resistant to the spread of *fire* as required by Clause C3 "Spread of Fire",
- (e) Easy to find as required by Clause F8 "Signs",
- (f) Provided with *adequate* illumination as required by Clause F6 "Lighting for Emergency", and
- (g) Easy and safe to use as required by Clause D1.3.3 "Access Routes".

Limits on application

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



Clause C3-SPREAD OF FIRE

Provisions

OBJECTIVE

C3.1 The objective of this provision is to:

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

FUNCTIONAL REQUIREMENT

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

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

PERFORMANCE

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

- (a) The travel distance,
- (b) The number of occupants,

Limits on application

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



Provisions

- (c) The fire hazard, and
- (d) The active *fire safety systems* installed in the *building*.

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

- (a) Other firecells,
- (b) Spaces intended for sleeping, and
- (c) Household units within the same building or adjacent buildings.
- (d) Other property.

C3.3.3 *Fire separations* shall:

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

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

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

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

- (a) Unlikely to reach a safe place in *adequate* time because of the number of storeys in the *building*,
- (b) Required to remain within the building without proceeding directly to a final exit, or where the evacuation time is excessive,

Limits on application

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

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



Provisions

- (c) Unlikely to reach a safe place due to confinement under institutional care because of mental or physical disability, illness or legal detention, and the evacuation time is excessive, or
- (d) At high risk due to the *fire* load and *fire* hazard within the building.
- C3.3.7 Air conditioning and mechanical ventilation systems shall be constructed to avoid circulation of smoke and *fire* between *firecells*.
- C3.3.8 Where an automatic smoke control system is installed, it shall be constructed to:
- (a) Avoid the spread of *fire* and smoke between *firecells*, and
- (b) Protect *escape routes* from smoke until the occupants have reached a *safe place*.
- **C3.3.9** The *fire safety systems* installed shall facilitate the specific needs of fire service personnel to:
- (a) Carry out rescue operations, and
- (b) Control the spread of fire.
- **C3.3.10** Environmental protection systems shall ensure a low probability of *hazardous substances* being released to:
- (a) Soils, vegetation or natural waters.
- (b) The atmosphere, and
- (c) Sewers or public drains.

Limits on application

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



Structural Stability During Fire

1992/150

Building Regulations 1992

27

FIRST SCHEDULE—continued

Clause C4—STRUCTURAL STABILITY DURING FIRE

Provisions

Limits on application

OBJECTIVE

C4.1 The objective of this provision is to:

- (a) Safeguard people from injury due to loss of structural stability during fire, and
- (b) Protect household units and other property from damage due to structural instability caused by fire.

FUNCTIONAL REQUIREMENT

C4.2 Buildings shall be constructed to maintain structural stability during fire to:

- (a) Allow people adequate time to evacuate safely,
- (b) Allow fire service personnel adequate time to undertake rescue and firefighting operations, and
- (c) Avoid collapse and consequential damage to adjacent household units or other property.

PERFORMANCE

C4.3.1 Structural elements of buildings shall have fire resistance appropriate to the function of the elements, the fire load, the fire intensity, the fire hazard, the height of the buildings and the fire control facilities external to and within them.

C4.3.2 Structural elements shall have a fire resistance of no less than that of any element to which they provide support within the same firecell.

C4.3.3 Collapse of elements having lesser fire resistance shall not cause the consequential collapse of elements required to have a higher fire resistance.

ARCHIVED

D Access

D1 Access Routes

28

Building Regulations 1992

1992/150

FIRST SCHEDULE-continued

Clause D1-ACCESS ROUTES

Provisions

1101101

D1.1 The objective of this provision is:

OBJECTIVE

- (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

D1.21 *Buildings* shall be provided with reasonable and adequate access to enable safe and easy movement of people.

D1.22 Where a *building* is provided with loading or parking spaces, they shall be constructed to permit safe and easy unloading and movement of vehicles, and to avoid conflict between vehicles and pedestrians.

PERFORMANCE

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

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

Limits on application

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

Note

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

NOTE:

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



1992/150

Building Regulations 1992

29

FIRST SCHEDULE—continued

Provisions

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".

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,

Limits on application

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

30

Building Regulations 1992

1992/150

FIRST SCHEDULE—continued

Provisions

- (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",
- 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.
- **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,

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.



1992/150

Building Regulations 1992

31

FIRST SCHEDULE—continued

Provisions

- (c) Include a lift complying with Clause D2 "Mechanical Installations for Access" to upper floors where:
 - (i) buildings are four or more storeys high,
 - 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

32

Building Regulations 1992

1992/150

FIRST SCHEDULE—continued

Provisions

- (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.
- **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.



D2 Mechanical Installations for Access

FIRST SCHEDULE-continued

Clause D2-MECHANICAL INSTALLATIONS FOR ACCESS

Provisions

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,

Limits on application

Objective D2.1(c) shall apply only to those *buildings* to which Section 47A of the Act applies.

Note

NOTE:

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



Provisions

- (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.

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

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

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

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

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

Limits on application

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



Provisions

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

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.

E Moisture

E1 Surface Water

FIRST SCHEDULE-continued

Clause E1-SURFACE WATER

Provisions

OBJECTIVE

E1.1 The objective of this provision is to:

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

FUNCTIONAL REQUIREMENT

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

PERFORMANCE

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

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

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

- (a) Convey *surface water* to an appropriate *outfall* using gravity flow where possible,
- (b) Avoid the likelihood of blockages,
- (c) Avoid the likelihood of leakage, penetration by roots, or the entry of ground water where pipes or lined channels are used,

Limits on application

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



Provisions

- (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.

E2 External Moisture

38

Building Regulations 1992

1992/150

FIRST SCHEDULE—continued

Clause E2—EXTERNAL MOISTURE

Provisions

OBJECTIVE

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

FUNCTIONAL REQUIREMENT

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

PERFORMANCE

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

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

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

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

E2.3.5 Concealed spaces and cavities in buildings shall be constructed in a way which prevents external moisture being transferred and causing condensation and the degradation of building elements.

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

Limits on application

Requirement E2.2 shall not apply to buildings in which moisture from outside would result in effects which are no more harmful than those likely to arise indoors during normal use.



E3 Internal Moisture

FIRST SCHEDULE-continued

Clause E3-INTERNAL MOISTURE

Provisions

OBJECTIVE

E3.1 The objective of this provision is to-

- (a) Safeguard people against illness, injury, or loss of *amenity* that could result from the 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* being 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.

Limits on application

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



Provisions

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.

ARCHIVED



F Safety of Users

F1 Hazardous Agents on Site

1992/150

Building Regulations 1992

41

FIRST SCHEDULE—continued

Clause F1—HAZARDOUS AGENTS ON SITE

Provisions

Limits on application

OBJECTIVE

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

FUNCTIONAL REQUIREMENT

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

PERFORMANCE

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

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

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



Hazardous Building Materials

42

Building Regulations 1992

1992/150

FIRST SCHEDULE—continued

Clause F2—HAZARDOUS BUILDING MATERIALS

Provisions

OBJECTIVE

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

FUNCTIONAL REQUIREMENT

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

PERFORMANCE

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

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

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

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

Limits on application

Performance F2.3.2 does not apply to Housing



F3 Hazardous Substances and Processes

1992/150

Building Regulations 1992

43

FIRST SCHEDULE—continued

Clause F3—HAZARDOUS SUBSTANCES AND PROCESSES

Provisions

Limits on application

OBJECTIVE

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

FUNCTIONAL REQUIREMENT

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

PERFORMANCE

- F3.3 Spaces in buildings where hazardous substances are stored, handled or used, or where hazardous processes are undertaken, shall be located and constructed to protect people, and other property, under both normal and reasonably foreseeable abnormal conditions, and shall be provided with:
- (a) Means of restricting unauthorised access,
- (b) Means of preventing hazardous substances, or other materials unacceptable to the network utility operator, from entering sewers or public drains,
- (c) Means of allowing the harmless release of pressure where there is a significant risk of explosion occurring,
- (d) Protected ignition sources where flammable or explosive goods are stored,
- (e) Means of rendering harmless by ventilation, containment, dilution, or chemical or biological action, any radioactive, toxic or flammable vapours, gases or materials which may escape from pipes, vessels or containers,

44



Building Regulations 1992

1992/150

FIRST SCHEDULE—continued

Provisions

- (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".

F4 Safety from Falling

FIRST SCHEDULE-continued

Clause F4-SAFETY FROM FALLING

Provisions

OBJECTIVE

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

FUNCTIONAL REQUIREMENT

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

PERFORMANCE

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

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

F4.3.3 Swimming pools have 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

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.



Provisions

- (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.

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

- (a) All gates and doors fitted with latching devices not readily operated by children, and constructed to automatically close and latch when released from any stationary position 150 mm or more from the closed and secured position, but excluding sliding and sliding-folding doors that give access to the immediate pool surround from a building that forms part of the barrier, and
- (b) No permanent objects on the outside of the barrier that could provide a climbing step.

Limits on application

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



F5 Construction and Demolition Hazards

FIRST SCHEDULE-continued

Clause F5-CONSTRUCTION AND DEMOLITION HAZARDS

Provisions

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 openings 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,



Provisions

- (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.

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

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

F6 Lighting for Emergency

FIRST SCHEDULE-continued Clause F6-LIGHTING FOR EMERGENCY

Provisions

OBJECTIVE

F6.1 The objective of this provision is to safeguard people from injury due to inadequate lighting being available during an emergency.

FUNCTIONAL REQUIREMENT

F6.2 Buildings shall be provided with adequate lighting within all escape routes in an emergency.

PERFORMANCE

F6.3.1 An *illuminance* of 1 lux minimum shall be maintained at floor level throughout *buildings* for a period equal to 1.5 times the *evacuation time* or 30 minutes, whichever is the greater.

F6.3.2 Signs to indicate *escape* routes shall be provided as required by Clause F8 "Signs".

Limits on application

Requirement F6.2 shall not apply to Detached Dwellings, household units within Multi-unit Dwellings, Outbuildings or Ancillary buildings.

Performance F6.3.1 shall not apply to spaces infrequently inhabited such as plant rooms, storage areas and service tunnels.

F7 Warning Systems

FIRST SCHEDULE-continued

Clause F7-WARNING SYSTEMS

Provisions

OBJECTIVE

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

FUNCTIONAL REQUIREMENT

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

PERFORMANCE

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

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

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

Limits on application

Performance F7.3 does not apply to *Outbuildings* or *Ancillary buildings*.



Clause F8-SIGNS

Provisions

OBJECTIVE

F8.1 The objective of this provision is to:

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

FUNCTIONAL REQUIREMENT

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

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

PERFORMANCE

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

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

F8.3.3 Signs to facilitate escape shall:

(a) Be provided in sufficient locations to identify escape routes and guide people to a safe place, and

Limits on application

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

Note

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

NOTE:

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



Provisions

- (b) Remain visible in the event of a power failure of the main lighting supply, for the same duration as required by Clause F6 "Lighting for Emergency".
- **F8.3.4** Signs shall be provided in sufficient locations to identify *accessible routes* and facilities provided for *people with disabilities*.



G Services and Facilities

G1 Personal Hygiene

1992/150

Building Regulations 1992

53

FIRST SCHEDULE-continued

Clause G1-PERSONAL HYGIENE

Provisions

G1.1 The objective of this provision is to:

OBJECTIVE

- (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

G1.21 *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,

Limits on application

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

Note

NOTE:

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

54



Building Regulations 1992

1992/150

FIRST SCHEDULE—continued

Provisions

- (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

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



1992/150

Building Regulations 1992

55

FIRST SCHEDULE-continued

Clause G2-LAUNDERING

Provisions

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

OBJECTIVE

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

FUNCTIONAL REQUIREMENT

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

PERFORMANCE

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

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

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

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

Limits on application

Objective G2.1(b) shall apply only to those buildings to which Section 47A of the Act applies.

Note

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

Performance G2.3.4 shall apply only to camping grounds.

NOTE:

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



G3 Food Preparation and Prevention of Contamination

FIRST SCHEDULE-continued

Clause G3-FOOD PREPARATION AND PREVENTION OF CONTAMINATION

Provisions

OBJECTIVE

G3.1 The objective of this provision is to:

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

FUNCTIONAL REQUIREMENT

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

G3.2.2 Buildings used for the storage, manufacture of 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.

Limits on application

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

Note

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.

NOTE:

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



Provisions

- (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.

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

- (a) Interior linings and work surfaces shall be *impervious* and easily cleaned,
- (b) All building elements
 constructed with materials
 which are free from hazardous
 substances which could cause
 contamination to the building
 contents, and
- (c) Exposed *building elements* located and shaped to avoid the accumulation of dirt.

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

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

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

Limits on application

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.

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

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

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



Provisions

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

Limits on application

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

G4 Ventilation

FIRST SCHEDULE-continued

Clause G4-VENTILATION

Provisions

OBJECTIVE

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

FUNCTIONAL REQUIREMENT

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

PERFORMANCE

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

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

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

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



Provisions

Limits on application

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 G5-INTERIOR ENVIRONMENT

Provisions

OBJECTIVE

G5.1 The objective of this provision is to:

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

FUNCTIONAL REQUIREMENT

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

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

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

PERFORMANCE

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

Limits on application

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

Note

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

Requirement G5.2.1 (b) shall apply only to old people's homes. Requirement G5.2.1 (c) shall apply only to Communal Residential, Communal Nonresidential, and Commercial buildings.

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

NOTE:

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



Provisions

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

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

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

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

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

Limits on application

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

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

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

Performance G5.3.5 applies only to:

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



G6 Airborne and Impact Sound

1992/150

Building Regulations 1992

63

FIRST SCHEDULE—continued

Clause G6-AIRBORNE AND IMPACT SOUND

Provisions

Limits on application

OBJECTIVE

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

FUNCTIONAL REQUIREMENT

C6.2 Building elements which are common between occupancies, shall be constructed to prevent undue noise transmission from other occupancies or common spaces, to the habitable spaces of household units.

PERFORMANCE

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

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



G7 Natural Light

64

Building Regulations 1992

1992/150

FIRST SCHEDULE—continued

Clause G7—NATURAL LIGHT

Provisions

Limits on application

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% of the *standard year*.

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

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

G8 Artificial Light

1992/150

OBJECTIVE

lighting.

Building Regulations 1992

65

FIRST SCHEDULE—continued

Clause G8—ARTIFICIAL LIGHT

Provisions

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

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.

Limits on application

Requirement G8.2 shall apply to:

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

PERFORMANCE

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

Performance G8.3 shall not apply in emergencies, for which Illuminance requirements are given in Clause F6 "Lighting for Emergency".



66

Building Regulations 1992

1992/150

FIRST SCHEDULE-continued

Clause G9-ELECTRICITY

Provisions

OBJECTIVE

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

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

FUNCTIONAL REQUIREMENT

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

PERFORMANCE

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

- (a) Protect people from contact with parts of the installation which are live during normal operation, and to prevent parts of the installation or other building elements becoming live during fault conditions,
- (b) Permit the safe isolation of the installation and of electrical fittings and appliances,
- (c) Safeguard people from excessive temperatures resulting from either normal operation of electrical equipment, or from currents which could exceed the installation rating,
- (d) Safeguard people from injury which may result from electromechanical stress in electrical components caused by currents in excess of the installation rating,

Limits on application

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

Note

NOTE:

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

Building Regulations 1992

67

FIRST SCHEDULE—continued

Provisions

- (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.

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

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

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

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

Limits on application

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



68

Building Regulations 1992

1992/150

FIRST SCHEDULE—continued

Clause G10-PIPED SERVICES

Provisions

11011310

OBJECTIVE

services.

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

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.

Limits on application



Building Regulations 1992

69

FIRST SCHEDULE—continued

Provisions

Limits on application

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.



G11 Gas as an Energy Source

70

Building Regulations 1992

1992/150

FIRST SCHEDULE—continued

Clause G11—GAS AS AN ENERGY SOURCE

Provisions

OBJECTIVE

G11.1 The objective of this provision is to:

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

FUNCTIONAL REQUIREMENT

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

PERFORMANCE

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

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

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

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

Limits on application

Building Regulations 1992

71

FIRST SCHEDULE—continued

Provisions

Limits on application

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*.





Schedule

Building Amendment Regulations 2001

Schedule New clause G12 substituted in First Schedule of principal regulations

Clause G12-Water Supplies

Provisions

Objective

G12.1 The objective of this provision is to-

- (a) safeguard people from illness 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, which 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 shall be-

- (a) protected from contamination; and
- (b) installed in a manner which 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 shall 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 shall be clearly identified.

Limits on application

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

Note

NOTE:

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



Schedule

Building Amendment Regulations 2001

Provisions

Performance-continued

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

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

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

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

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

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

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

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

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

Limits on application

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

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

Clerk of the Executive Council.

NOTE:

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

Note



Building Regulations 1992

75

FIRST SCHEDULE—continued

Clause G13—FOUL WATER

Provisions

Limits on application

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, shall be provided with an adequate plumbing and drainage system to carry foul water to appropriate outfalls.

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,

76

Building Regulations 1992

1992/150

FIRST SCHEDULE—continued

Provisions

- (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,
- (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 Where no sewer is available, an adequate on-site disposal system shall be provided for foul water in the same manner as detailed in clause G14 "Industrial Liquid Waste".

Limits on application

G14 Industrial Liquid Waste

FIRST SCHEDULE-continued

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) Provides reasonable access for clearing of blockages.

G14.3.2 Facilities for the storage, treatment, and disposal of industrial liquid waste shall be constructed:

- (a) With *adequate* capacity for the volume of waste and the frequency of disposal,
- (b) With *adequate* vehicle access for collection if required,
- (c) To avoid the likelihood of contamination of any potable water supplies in compliance with Clause G12 "Water Supplies",

Limits on application



FIRST SCHEDULE-continued

Provisions

- Limits on application
- (d) To avoid the likelihood of contamination of soils, ground water and waterways except as permitted under the Resource Management Act 1991.
- (e) From materials which are impervious both to the waste for which disposal is required, and to water,
- (f) To avoid the likelihood of foul air and gases accumulating within or entering into buildings,
- (g) To avoid the likelihood of unauthorised access by people, and
- (h) To permit easy cleaning and maintenance.



FIRST SCHEDULE-continued

Clause G15-SOLID WASTE

Provisions

OBJECTIVE

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

FUNCTIONAL REQUIREMENT

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

PERFORMANCE

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

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

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

- (a) Convey the solid waste to an appropriate storage container,
- (b) Avoid the likelihood of blockage or leakage,
- (c) Permit easy cleaning and maintenance,

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.



FIRST SCHEDULE-continued

Provisions

- Limits on application
- (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".



H Energy Efficiency

H1 Energy Efficiency Provisions

r 4

Building Amendment Regulations 2000

2000/119

5 Clause H1 of code (energy efficiency provisions) replaced

The First Schedule of the principal regulations is amended by revoking clause H1, and substituting the following clause:

Clause H1—Energy efficiency provisions

Provisions

Limits on application

Objective

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

Objective H1.1 applies only when the energy is sourced from a *network utility operator* or a depletable energy resource.

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 or humidity, or both; or
- (b) providing hot water to sanitary fixtures or sanitary appliances, or both; or
- (c) providing artificial lighting

Requirement H1.2(a) does not apply to assembly service buildings, industrial buildings, outbuildings, or ancillary buildings, or to plant and equipment provided to modify temperature, humidity, or both.

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

Performance

H1.3.1 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 Buildings must be constructed to ensure that the building performance index does not exceed:

- (a) 0.13 kWh in a warm location; and
- (b) 0.12 kWh in a cool location.

Performance H1.3.2 applies only to *housing*.

4

Building Amendment Regulations 2000

r 5

Provisions

Limits on application

- **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
- (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 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 connected to storage vessels.

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.

Performance H1.3.4(b) applies only where individual storage vessels are 700 litres or less in capacity.

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

Marie Shroff, Clerk of the Executive Council.

9

ARCHIVED



Publications Referenced in Handbook and Compliance Documents

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

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

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

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

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

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

Contents	Page
Standards New Zealand	11
Standards Australia	21
British Standards Institution	19
New Zealand Publications (other than Standards)	26
Australian Publications (other than Standards)	29
Australia/New Zealand Publications (other than Standards)	29
British Publications (other than Standards)	29
International Publications	30
US Publications	31

Standards New	Zealand	Where quoted
NZS/BS 21: 1985	Specification for pipe threads for tubes and fittings where pressure-tight joints are made on the threads (metric dimensions)	G10 /AS1, G14 /VM1
NZS/BS 143,		
and BS 1256: 1990	3 Specification for malleable cast iron and cast copper alloy threaded pipe fittings Amend: 1, 2, 3	G10 /AS1, G14 /VM1
NZS 202: 1966	Specification for steel pipes and joints for hydraulic purposes	G14 /VM1
NZS 380: 1968	Specification for flameproof electric lighting fittings	F6 /AS1



		Where quoted
NZS/BS 476:- Part 20: 1987	Fire tests on building materials and structures Method for determination of the fire resistance of elements of construction (general principles) Amend: 6487	C /AS1 C /AS1
Part 21: 1987	Methods for determination of the fire resistance of loadbearing elements of construction	C /AS1
Part 22: 1987	Methods for determination of the fire resistance of non-loadbearing elements of construction	C /AS1
NZS/BS 970:-	Specification for wrought steels for mechanical and allied engineering purposes	
Part 1: 1991	General inspection and testing procedures and specific requirements for carbon, carbon manganese, alloy and stainless steels	E1 /AS1
AS/NZS 1221: 1997	7 Fire hose reels	C /AS1
AS/NZS 1260: 199	9 PVC pipes and fittings for drain, waste and vent applications	G13 /AS1/AS2
NZS/BS 1387: 198! (1990)	5 Specification for screwed and socketed steel tubes and tubulars and for plain end steel tubes suitable for welding or screwing to BS 21 pipe threads	G10/AS1, G12/AS1, G14/VM1
AS/NZS 1477: 199	9 PVC pipes and fittings for pressure applications	G12 /AS1
AS/NZS 1530:- Part 3: 1999	Methods for fire tests on building materials, components and structures Simultaneous determination of ignitability, flame	C /AS1
	propagation, heat release and smoke release	
NZS/BS 1560:-	Circular flanges for pipes, valves and fittings (class designated)	
Part 3:- Section 3.1: 1989	Steel, cast iron and copper alloy flanges Specification for steel flanges	E1/AS1, G10/AS1, G14/VM1
Section 3.2: 198	39 Specification for cast iron flanges	G10 /AS1
AS/NZS 1646: 200	0 Elastomeric seals for waterworks purposes	G13 /AS2
NZS/AS 1650: 1989	9 Hot-dipped galvanised coatings on ferrous articles	B1 /AS2/AS3
NZS/AS 1657: 1992	2 Fixed platforms, walkways, stairways and ladders – Design, construction and installation (known as the SAA Code for fixed platforms, walkways, stairways, and ladders)	D1 /AS1
AS/NZS 1664:- Part 1: 1997	Aluminium structures Limit state design Amend: 1	B1 /VM1
Part 2: 1997	Allowable stress design Amend: 1	B1 /VM1



		Where quoted
AS/NZS 1668:-	The use of ventilation and air conditioning in buildings	
Part 1: 1998	Fire and smoke control in multi-compartment buildings	C /AS1, F7 /AS1
Part 2: 1991	Mechanical ventilation for acceptable indoor-air quality	G4 /AS1
AS/NZS 1730: 199	06 Washbasins	G1 /AS1
NZS/BS 1740:-	Specification for wrought steel pipe fittings (screwed BS 21 – R series thread) 990) Metric units	G10 /AS1, G14 /VM1
1 dit 1. 1371 (1	Amend: 1, 2, 3	GIO/ASI, GIA/VIVII
AS/NZS 1748:	Mechanically strong graded timber	B1 /VM1
NZS 1900: Ch 11: 1985	Model building bylaw Special structures	
Division 11.2	Farm buildings Amend: 1	B1 /VM1
AS/NZS 1905:-	Components for the protection of openings in fire-resistant walls	
Part 1: 1997	Fire-resistant doorsets	C /AS1, HB /SS 15
AS/NZS 2023: 199	5 Baths for ablutionary purposes	G1 /AS1
NZS/AS 2033: 198	0 Installation of polyethylene pipe systems	E1/AS1, G14/VM1
AS/NZS 2243:1 20	05 Safety in laboratories – Planning and operational aspects	HB /SS 11
AS/NZS 2243:8 20	106 Safety in laboratories – Fume cupboards	HB /SS 11
AS/NZS 2269: 200	14 Plywood – Structural	E2 /AS1
AS/NZS 2280: 199	9 Ductile iron pressure pipes and fittings	G13 /AS2
AS/NZS 2293:- Part 1: 1995 Part 2: 1995 Part 3: 1995	Emergency evacuation lighting for buildings System design, installation and operation Inspection and maintenance Emergency luminaires and exit signs	F6 /AS1 F6 /AS1, HB /SS 4 F6/ AS1
NZS/BS 2494: 199	90 Specification for elastomeric seals for joints in pipework and pipelines	E1/AS1, G13/AS1/AS2, G14/VM1
AS/NZS 2642:- Part 1: 1994 Part 2: 1994	Polybutylene pipe systems Polybutylene (PB) pipe extrusion compounds Polybutylene (PB) pipe for hot and cold water applications	G12 /AS1 G12 /AS1
Part 3: 1994	Mechanical jointing fittings for use with polybutylene (PB) pipes for hot and cold water applications Amend: 1	G12 /AS1



		Where quoted
NZS/BS 2654: 198	9 Specification for manufacture of vertical steel welded non-refrigerated storage tanks with butt-welded shells for the petroleum industry	G14 /VM1
	7 Prefinished/prepainted sheet metal products for interior/exterior building applications - Performance requirements	E2 /AS1
AS/NZS 2845:- Part 1: 1998	Water supply Materials, design and performance requirements	G12 /AS1
AS/NZS 2904: 199	5 Damp-proof courses and flashings	E2 /AS1
AS/NZS 2908: Part 2: 2000	Cellulose-cement products Flat sheet	E2 /AS1
AS/NZS 2918: 200	1 Domestic solid fuel burning appliances – installation	C /AS1
NZS/BS 2971: 199	1 Specification for Class II arc welding of carbon steel pipework for carrying fluids	G10/AS1, G14/VM1
NZS 3101:- Part 1: 1995	Concrete structures standard The design of concrete structures Amend: 1, 2, 3	B2 /AS1 B1 /VM1
NZS 3106: 1986	Code of practice for concrete structures for the storage of liquids Amend: 1, 2	G14 /VM1 B1 /VM1
NZS 3107: 1978	Specification for precast concrete drainage and pressure pipes	B1 /VM1, E1 /AS1, G13 /AS2, G14 /VM1
NZS 3109: 1997	Specification for concrete construction Amend: 2	B1 /AS3
NZS 3112:- Part 2: 1986	Methods of test for concrete Tests relating to the determination of strength of concrete Amend: 1	B1/AS3
NZS 3114: 1987	Specification for concrete surface finishes Amend: 1	D1 /AS1, G15 /AS1
NZS 3116: 1991	Interlocking concrete block paving	D1 /AS1
NZS 3124: 1987	Specification for concrete construction for minor works	E1 /AS1
NZS 3302: 1983	Specification for ceramic pipes, fittings and joints	E1/AS1, G14/VM1
NZS 3331: 1972	Specification for quality of vitreous china sanitary appliances	G1 /AS1
NZS 3402: 1989	Steel bars for the reinforcement of concrete	B1 /AS3
NZS 3404:- Part 1: 1997	Steel structures standard Steel structures standard	B1 /VM1
NZS 3421: 1975	Specification for hard drawn mild steel wire for concrete reinforcement	B1 /AS3



		Where quoted
NZS 3422: 1975	Specification for welded fabric of drawn steel wire for concrete reinforcement	B1 /AS3
NZS 3441: 1978	Specification for hot-dipped zinc-coated steel coil and cut lengths Amend: 1, 2 (See also NZS/AS 1397: 1993)	B1 /AS2/AS3, E1 /AS1
AS/NZS 3500:- Part 1: 2003	National plumbing and drainage code Water services Amend: 1	G12 /VM1/AS1
Part 2: 2003	Sanitary plumbing and drainage Amend: 1	G13 /AS1/VM2/AS2/ AS3
Part 4: 2003	Heated water services Amend: 1	G12 /VM1/AS1
NZS 3501: 1976	Specification for copper tubes for water, gas, and sanitation Amend: 1, 2 and 3	G10 /AS1, G13 /AS1/AS2 G12 /AS1
NZS 3502: 1976	Specification for copper and copper alloy tubes for general engineering purposes	G10 /AS1
NZS 3601: 1973	Metric dimensions for timber Amend: 1, 2	B1 /AS2
NZS/BS 3601: 1987 (1993)	7 Specification for carbon steel pipes and tubes with specified room temperature properties for pressure purposes Amend: 1, 2	G10 /AS1, G14 /VM1
NZS 3602:-		E2 /AS1
Part 1: 1995 Part 1: 2003	Timber and wood-based products for use in building Timber and wood-based products for use in building	B2 /AS1 B2 /AS1
NZS 3603: 1993	Timber structures standard Amend: 1, 2	B1 /VM1/VM4
NZS 3604: 1999	Timber framed buildings Amend: 1	B1/AS1/AS2/AS3, B2/AS1, E1/AS1, E2/VM1/AS1, G13/AS2
NZS 3605: 1992	Specification for timber piles and poles for use in building	B1 /VM4
NZS 3617: 1979	Specification for profiles of weatherboards, fascia boards, and flooring	E2 /AS1
NZS 3631: 1988	New Zealand timber grading rules	B1 /AS2
NZMP 3640: 1992	Specification of the minimum requirements of the NZ Timber Preservation Council Inc. Amend: 1	B1 /AS2/VM4
AS/NZS 3661:- Part 1: 1993 Part 2: 1994	Slip resistance of pedestrian surfaces Requirements Guide to the reduction of slip hazards	D1 /VM1/AS1 D1 /AS1



		Where quoted
AS/NZS 3622: 200	4 Verification of timber properties	B1 /VM1
AS/NZS 3666:-	Air-handling and water systems of buildings – Microbial Control	
Part 1: 2002 D	Design, installation and commissioning	HB /SS 9
Part 2: 2002 C	peration and maintenance	G4 /AS1, HB /SS 9
Part 3: 2000 P	erformance-based maintenance of cooling water systems	G4 /AS1, HB /SS 9
NZS/AS 3725: 198	9 Loads on buried concrete pipes	B1 /VM1
	8 Method of test for heat and smoke release rates for materials and products using an oxygen consumption calorimeter	C /AS1
AS/NZS 3896: 199	8 Waters – Examination for legionellae including Legionella pneumophila Amend: 1	HB /SS 9
AS/NZS 4020: 200	2 Testing of products for use in contact with drinking water	E2 /AS1
NZS 4121: 2001	Design for access and mobility – Buildings and associated facilities	D1 /AS1, G1 /AS1, G5 /AS1
AS/NZS 4130: 199	77 Polyethylene (PE) pipe for pressure applications	G12 /AS1, G13 /AS2
AS/NZS 4200: Part 1: 1994	Pliable building membranes and underlays – Materials	E2 /AS1
AS/NZS 4201: Part 3: 1994	Pliable building membranes and unerlays – Methods of test Pliable building membranes and underlays:	E2 /AS1
Part 4: 1994 Part 6: 1994	Methods of test: Shrinkage Resistance to water penetration Surface water absorbency	
NZS 4203: 1984	Code of practice for general structural design and design loadings for buildings Amend: 1	B1 /VM1, G10 /AS1
NZS 4203: 1992	Code of practice for general structural design and design loadings for buildings Corrigendum: 1	B1 /VM1/VM4, C /AS1, E2 /VM1/AS1
NZS 4206: 1992	Concrete interlocking roofing tiles	E2 /AS1
NZS 4210: 1989	Code of practice for masonry construction: materials and workmanship Amend: 1, 2	B1/AS3
NZS 4211: 1985	Specification for performance of windows Amend: 1, 2, 3	B1 /VM1, E2 /VM1/AS1
NZS 4214: 1977	Methods of determining the total thermal resistance of parts of buildings	E3 /AS1, G5 /AS1, H1 /VM1/AS1



		Where quoted
NZS 4217:- Part 1: 1980 Part 2: 1980	Pressed metal tile roofs Specification for roofing tiles and their accessories Code of practice for preparation of the structure and the laying and fixing of metal roofing tiles	E2 /AS1 E2 /AS1
NZS 4218: 1996	Energy efficiency – housing and small building envelope	H1 /VM1/AS1
NZS 4219: 1983	Specification for seismic resistance of engineering systems in buildings Amend: 1, 2	B1/VM1, G10/AS1, G14/VM1
NZS 4223:- Part 1: 1985	Code of practice for glazing in buildings The selection and installation of glass in buildings Amend: 1, 2	B1 /AS1
Part 2: 1985	The selection and installation of manufactured sealed insulating glass units Amend: 1, 2	B1 /AS1
Part 3: 1999	Human impact safety requirements	B1 /AS1, F2 /AS1
NZS 4229: 1999	Concrete masonry buildings not requiring specific engineering design Amend: 1	B1 /AS1/AS3, E1 /AS1, G13 /AS2
NZS 4230:-	Code of practice for the design of masonry structures	
Part 1: 1990	Structures Amend: 1, 2	B1 /VM1
Part 2: 1990	Commentary Amend: 1, 2	B1 /VM1
NZS 4231: 1985	Specification for self-luminous exit signs Amend: A	F8 /AS1
NZS 4232:- Part 2: 1988	Performance criteria for fire resisting enclosures Fire resisting glazing systems	HB /SS 15 C/ AS1
NZS HB 4236: 200	02 Masonary veneer wall cladding	E2 /AS1
NZS 4239: 1993	Automatic sliding door assemblies Amend: A	HB /SS 3
NZS 4243: 1996	Energy efficiency – large buildings	H1 /VM1/AS1
NZS 4251:- Part 1: 1998	Solid plastering Cement plaster for walls, ceilings and soffits	B1 /AS1, B2 /AS1, E2 /AS1
AS/NZS 4256: Part 2: 1994	Plastic roof and wall cladding materials Unplasticized polyvinyl chloride (uPVC) building sheets	E2 /AS1
AS/NZS 4284: 199	95 Testing of building facades	E2 /VM1



		Where quoted
NZS 4297: 1998	Engineering design for earth buildings	B1 /VM1, B2 /AS1
NZS 4299: 1998	Earth buildings not requiring specific design Amend: 1	B1 /AS1, B2 /AS1
NZS 4303: 1990	Ventilation for acceptable indoor air quality	G4 /AS1
NZS 4304: 1990	Health care waste management	G15 /AS1
NZS 4305: 1996	Energy efficiency – domestic type hot water systems	H1 /AS1
NZS 4332: 1997	Non-domestic passenger and goods lifts	D2 /AS1, F6 /AS1, HB /SS 8
AS/NZS 4401(Int):	1999 High density polyethylene (PE-HD) pipes and fittings for soil and waste discharge (low and high temperature) systems inside buildings	G13 /AS1
NZS 4402:- Part 2:-	Methods of testing soils for civil engineering purposes Soil classification tests	B1 /VM1
Test 2.2: 1986	Determination of the liquid limit	B1 /Defs
Test 2.6: 1986 Part 4:-	Determination of the linear shrinkage Soil compaction tests	B1 /Defs
	8 Related densities	B1 /VM4
NZS 4431: 1989	Code of practice for earth fill for residential development Amend: 1	B1 /VM1
NZS 4442: 1988	Welded steel pipes and fittings for water, sewage and medium pressure gas	E1 /AS1, G13 /AS2, G14 /VM1
NZS 4452: 1986	Code of practice for the construction of underground pipe sewers and drains	G14 /VM1
	Amend: 1	B1 /AS1, E1 /AS1
NZS 4503: 1993	The distribution, installation and maintenance of hand operated fire fighting equipment for use in buildings	C /AS1
NZS/BS 4504:-	Circular flanges for pipes, valves and fittings (PN designated)	
Part 3:- Section 3.2: 198	Steel, cast iron and copper alloy flanges 9 Specification for cast iron flanges	G10 /AS1, G14 /VM1
NZS 4510: 1998	Fire hydrant systems for buildings	C /AS1, HB /SS 6
NZS 4512: 2003	Fire alarm systems in buildings	C /AS1, HB /SS 2, HB /SS 15, F7 /AS1
NZS 4515: 2003	Fire sprinkler systems for residential occupancies	C /AS1, HB /SS 1, F7 /AS1
AS/NZS 4534: 199	8 Zinc and zinc/aluminium-alloy coatings on steel wire	E2 /AS1



		Where quoted
NZS 4541: 2003	Automatic fire sprinkler systems	C /AS1, F7 /AS1 HB /SS 1
AS/NZS 4600: 199	6 Cold-formed steel structures	B1 /VM1
NZS 4602: 1988	Low pressure copper thermal storage electric water heaters Amend: 1	G12 /AS1
NZS 4603: 1985	Installation of low pressure thermal storage electric water heaters with copper cylinders (open vented systems) Amend: 1	G12 /AS1
NZS 4606:- Part 1: 1989	Storage water heaters General requirements Amend: 1, 2, 3	G12 /AS1
Part 2: 1989	Specific requirements for water heaters with single shells Amend: A	G12 /AS1
Part 3: 1992	Specific requirements for water heaters with composite shells Amend: A	G12 /AS1
NZS 4607: 1989	Installation of thermal storage electric water heaters: valve vented systems	G12 /AS1
NZS 4608: 1992	Control valves for hot water systems	G12 /AS1
NZS 4613: 1986	Domestic solar water heaters	G12 /AS1
NZS 4617: 1989	Tempering (3-port mixing) valves	G12 /AS1
AS/NZS 4680: 199	9 Hot-dip galvanized (zinc) coatings on fabricated ferrous articles	E2 /AS1
AS/NZS 4858: 200	4 Wet area membranes	E2 /AS1
NZS/BS 5252: 197	6 Framework for colour co-ordination for building purposes Amend: 1	F8/ AS1
NZS 5261: 1996	The installation of gas burning appliances and equipment	G4 /AS1
NZS 5261: 2003	Gas installation Amend: 1	C /AS1, G10 /VM1/ AS1, G11 /AS1
NZS 5433: 1988	Code of practice for transportation of hazardous substances on land	F3 /AS1
NZS/BS 5500: 199	1 Specification for unfired fusion welded pressure vessels	G14 /VM1



		Where quoted
NZS/BS 5556: 197	78 Specification for general requirements for dimensions and pressure ratings for pipe of thermoplastics materials (metric series)	G14 /VM1
NZS 5807:-	Code of practice for industrial identification by colour, wording or other coding	
Part 2: 1980	Identification of contents of piping, conduit and ducts Amend: 1, 2	G10 /AS1 G12 /AS1
NZS 6104: 1981	Specification for emergency electricity supply in buildings	C /AS1, F6 /AS1 HB /SS 4, SS 14
NZS 6214: 1988	Thermostats and thermal cutouts for domestic thermal storage electric water heaters (alternating current only)	G12 /AS1
NZS 6335: 1993	Safety of household and similar electrical appliances. Particular requirements for instantaneous water heaters Amend: 1, 2	G12 /AS1
NZS 6401: 1973	Specification for PVC-insulated cables for electric power and lighting	G12 /AS1
NZS 6703: 1984	Code of practice for interior lighting design	F6/VM1, G7/AS1/VM1, G8/VM1
NZS 6742: 1971	Code of practice for emergency lighting in buildings	F6 /AS1, F8 /AS1, HB /SS 4
NZS/BS 6920:-	Suitability of non-metallic products for use in contact with water intended for human consumption with regard to their effect on the quality of the water	
Part 1: 1990 Part 2: 1990 Part 3: 1990	Specification Methods of tests High temperature tests	G12 /AS1 G12 /AS1 G12 /AS1
NZS 7401: 1985	Specification for solid fuel burning domestic appliances Amend: 1	B1/AS3
NZS 7421: 1990	Specification for installation of solid fuel burning domestic appliances	B1/AS3
NZS 7601: 1978	Specification for polyethylene pipe (Type 3) for cold water services	G12 /AS1, G14 /VM1
NZS 7602: 1977	Specification for polyethylene pipe (Type 5) for cold water services	G14 /VM1
	Amend: 1	G12 /AS1



		Where quoted
NZS 7604: 1981	Specification for high density polyethylene drain and sewer pipe and fittings	E1 /AS1, G14 /VM1
NZS 7609:-	Acrylonitrile butadiene styrene (ABS) pipes and fittings for pressure applications	
Part 1: 1990	Pipes Amend: A	E1/AS1, G14/VM1
Part 2: 1990	Solvent cement fittings Amend: A	E1 /AS1, G14 /VM1
NZS 7610: 1991	Blue polyethylene pipes up to nominal size 63 for below ground use for potable water	G14 /VM1
	Amend: 1, 2, A	G12 /AS1
NZS 7641: 1978	Specification for unplasticized PVC waste and ventilating pipe, fittings and accessories 32 mm, 40 mm and 50 mm	G14 /VM1
NZS 7642: 1971	Specification for unplasticized PVC soil and ventilating pipe, fittings and accessories Amend: A, 1, 1A, 2, 2A	E1/AS1, G14/VM1
NZS 7643: 1979	Code of practice for the installation of unplasticized PVC pipe systems Amend: 1	B1/AS1, E1/AS1, G12/AS1, G13/AS1/AS2/AS3, G14/VM1
NZS 7646: 1978	Specification for polyethylene pipes and fittings for gas reticulation	G10 /AS1
NZS 7648: 1987	Unplasticized PVC pipe and fittings for pressure applications	G14 /VM1
NZS 7649: 1988	Unplasticized PVC sewer and drain pipe and fittings	E1/AS1, G14/VM1
NZS 7652: 1976	Specification for plastics waste traps	G14 /VM1



Standards Aust	ralia	Where quoted
AS D26: 1972	Tube fittings with Dryseal American standard taper pipe and unified threads for automotive and industrial use	G10 /AS1
AS 1088.4: 1987	Hearing aids – magnetic field strength in audio- frequency induction loops for hearing aid purposes	HB /SS 12
AS 1159: 1988	Polyethylene pipes for pressure applications	G14 /VM1
AS 1167:- Part 1: 1993	Welding and brazing – Filler metals Filler metal for brazing and braze welding	G10 /AS1
AS 1214: 1983	Hot-dip galvanised coatings on threaded fasteners (ISO metric coarse thread series)	B1 /AS2
AS 1229: 1989	Laundry troughs	G2 /AS1
AS 1254: 1991	Unplasticised PVC (uPVC) pipes and fittings for storm and surface water applications	E1 /AS1
AS 1273: 1991	Unplasticized PVC (uPVC) downpipe and fittings for rainwater	E1 /AS1
AS 1308: 1987	Electric water heaters – Thermostats and thermal cut-outs <i>Amend:</i> 1	G12 /AS1
AS 1357:- Part 1: 1993 Part 2: 1998	Water valves for use with unvented water heaters Protection valves Amend: 1 Control valves	G12 /AS1 G12 /AS1
AS 1366:- Part 1: 1992	Rigid cellular plastics sheets for thermal insulation Rigid cellular polyurethane (RC/PUR) Amend: 1	C /AS1
Part 2: 1992 Part 3: 1992	Rigid cellular polyisocyanurate (RC/PIR) Rigid cellular polystyrene – moulded (RC/PS-M) Amend: 1	C /AS1 C /AS1, E2 /AS1
Part 4: 1989	Rigid cellular polystyrene – extruded (RC/PS-E)	C /AS1, E2 /AS1
AS 1397: 2001	Steel sheet and strip – Hot-dip zinc-coated or aluminium/zinc-coated	E2 /AS1
AS 1432: 1990	Copper tubes for plumbing, gasfitting and drainage applications	G10 /AS1
AS 1449: 1994	Wrought alloy steels – Stainless and heat-resisting steel plate, sheet and strip Amend: 1	G1 /AS1
AS 1460:- Part 1: 1989 Part 2: 1989	Fittings for use with polyethylene pipes Mechanical jointing fittings Electrofusion fittings	G12 /AS1, G14 /VM1 G12 /AS1, G14 /VM1



		Where quoted
AS 1530:-	Methods for fire tests on building materials,	
Part 1: 1994 Part 2: 1993 Part 4: 1997	components and structures Combustibility test for materials Test for flammability of materials Fire-resistance tests of elements of building construction	C /AS1, F3 /Defs C /AS1 C /AS1
AS 1566: 1997	Cooper and copper alloys – Rolled flat products	E2 /AS1
AS 1579: 1993	Arc welded steel pipes and fittings for water and waste water	G13 /AS2
AS 1589: 1994	Copper and copper alloy waste fittings	G13 /AS1
AS 1668:-	The use of mechanical ventilation and air-conditioning in buildings	G4 /AS1
Part 2: 2002	Ventilation design for indoor-air containment control	G4 /AS1
AS 1670:- Part 6: 1997	Fire detection, warning, control and intercom systems – System design, installation and commissioning Smoke alarms	F7 /AS1
AS 1691: 1985	Domestic oil-fired appliances – installation	C/ AS1
AS 1727: 1975	Tank containers (international sizes)	G14 /VM1
	7 Aluminium and aluminium alloys – Flat sheet, coiled sheet and plate	E2 /AS1
AS 1741: 1991	Vitrified clay pipes and fittings with flexible joints – Sewerage quality	E1 /AS1
AS 1768: 1991	Lightning protection (incorporating Amdt 1)	F3 /AS1
AS 1804: 1976	Soft lead sheet and strip	E2 /AS1
AS 1851: 2005	Maintenance of fire protection equipment	HB /SS 1, SS 2, SS 5, SS 9, SS 13, SS 15
AS 2032: 1997	Installation of uPVC pipe systems	G13 /AS2/AS3
AS 2049: 2002	Roof tiles	E2 /AS1
AS 2050: 2002	Installation of roof tiles	E2 /VM1
AS 2159: 1995	Rules for the design and installation of piling Amend: 1	B1 /VM4
AS 2220:- Part 1: 1989	Emergency warning and intercommunication systems in buildings Equipment design and manufacture	C /AS1
Part 2: 1989	System design, installation and commissioning	C /AS1
AS 2280: 1991	Ductile iron pressure pipes and fittings	E1 /AS1
AS 2712: 1993	Solar water heaters – Design and construction	G12 /AS1
AS 2845:-	Water supply – Mechanical backflow prevention devices	
Part 3: 1993	Field testing and maintenance	G12 /AS1, HB /SS 7



		Where quoted
AS 2887: 1993	Plastic waste fittings	G13 /AS1
AS 2890:- Part 1: 1993 Part 2: 1989	Off-street parking Car parking facilities Commercial vehicle facilities	D1 /AS1 D1 /AS1
AS 3147: 1992	Approval and test specification – Electric cables – Thermoplastic insulated for working voltages up to and including 0.6/1kV Amend: 1, 2, 3	G12 /AS1
AS 3518:-	Acrylonitrile butadiene styrene (ABS) pipes and fittings for pressure applications	•
Part 1: 1988 Part 2: 1988	Pipes Solvent cement fittings	G13 /AS2 G13 /AS2
AS 3566 Part 2: 2002	Self-drilling screws for the building and construction industries Corrosion resistance	E2 /AS1
AS 3571: 1989	Glass filament reinforced thermosetting plastics (GRP) pipes: Polyester based: Water supply, sewerage and drainage applications	G13/ AS2
AS 3588: 1989	Shower bases and shower modules	G1 /AS1
AS 3688: 1994	Water supply – Copper and copper alloy compression and capillary fittings and threaded end connectors	G10 /AS1
AS 3706:- Part 1: 1990	Geotextiles – Methods of test General requirements, sampling, conditioning, basic physical properties and statistical analysis	E1 /VM1
AS 3730	Guide to the properties of paints for buildings	E2 /AS1
AS 3786: 1993	Smoke alarms Amends: 1, 2, 3	F7 /AS1
AS 4020: 2005	Testing of products for use in contact with drinking water	G12 /AS1
AS 4046 Part 9: 2002	Methods of testing roof tiles Determination of dynamic weather resistance	
AS 4072:-	Components for the protection of openings in fire-resistant separating elements	C /AS1
Part 1: 1992	Service penetrations and control joints	C /AS1
AS 4085: 1992	Automatic sliding door assemblies	HB/SS 3
AS 4178: 1994	Electromagnetic door holders	HB/SS 3
AS 4139: 1993	Fibre reinforced concrete pipes and fittings	G13 /AS2
AS 4276:- Part 3.1: 1995	Water plate microbiology – Pour plate method using plate count agar	HB /SS 9
AS 4290: 2000	Design and installation of revolving doors	HB /SS 3



British Standard	Is Institution	Where quoted
BS 10: 1962	Specification for flanges and bolting for pipes, valves and fittings	G10 /AS1
BSDD 175: 1988	Code of practice for the identification of potentially contaminated land and its investigation	F1 /VM1
BS 437: 1978	Specification for cast iron spigot and socket drain pipes and fittings Amend: 5877	G13 /AS2
BS 585:- Part 1: 1989	Wood stairs Specification for stairs with closed risers for domestic use, including straight and winder flights and quarter or half landings	D1 /AS1
BS EN 988: 1997	Zinc and zinc alloys. Specification for rolled flat products for building	E2 /AS1
BS 1470: 1987	Specification for wrought aluminium and aluminium alloys for general engineering purposes: plate, sheet and strip Amend: 6032	E1 /AS1
BS 1600: 1992	Specification for dimensions of steel pipe for the petroleum industry	G14 /VM1
BS 1640:-	Specification for steel butt-welding pipe fittings	
Part 3: 1968	for the petroleum industry Wrought carbon and ferritic alloy steel fittings. Metric units Amend: 905	G10 /AS1, G14 /VM1
Part 4: 1968	Wrought and cast austenitic chromium-nickel steel fittings. Metric units	G10 /AS1, G14 /VM1
BS 1723:-	Brazing Constitution for the size	010/001
Part 1: 1986	Specification for brazing	G10 /AS1
BS 1845: 1984 BS 1965:-	Specification for filler metals for brazing Specification for butt-welding pipe fittings for	G10 /AS1 G14 /VM1
20 .000.	pressure purposes	C1 1,
Part 1: 1963	Carbon steel Amend: 5474, 4169	G14 /√M1
BS 2594: 1975	Specification for carbon steel welded horizontal cylindrical storage tanks	G14 /VM1
BS 2598:-	Glass plant, pipeline and fittings	
Part 1: 1980	Specification for properties of borosilicate glass 3.3	G14/VM1
Part 2: 1980 Part 3: 1980	Specification for testing, handling and use Specification for pipeline and fittings of nominal bore	G14 /VM1 G14 /VM1
1 411 5. 1550	15 to 150 mm: compatibility and interchangeability	31 -7/ ₹1₹11
Part 4: 1980	Specification for glass plant components	G14 /VM1



		Where quoted
BS 2640: 1982	Specification for Class II oxy-acetylene welding of carbon steel pipework for carrying fluids	G10 /AS1, G14 /VM1
BS 2870: 1980	Specification for rolled copper and copper alloys: sheet, strip and foil	E1 /AS1
BS 3799: 1974 (1994)	Specification for steel pipe fittings, screwed and socket-welding for the petroleum industry	G10 /AS1, G14/ VM1
BS 4741: 1971	Specification for vertical cylindrical welded steel storage tanks for low-temperature service: single wall tanks for temperatures down to -50°C	G14 /VM1
BS 4790: 1996	Method for determination of the effects of a small source of ignition on textile floor coverings (hot metal nut method)	C /AS1
BS 4991: 1974	Specification for propylene copolymer pressure pipe	G14 /VM1
BS 4994: 1987	Specification for design and construction of vessels and tanks in reinforced plastics	G14 /VM1
BS 5287: 1996	Specification for assessment and labelling of textile floor coverings tested to BS 4790	C /AS1
BS 5378:- Part 1: 1980	Safety signs and colours Specification for colour and design	F8 /AS1
BS 5395:- Part 2: 1984	Stairs, ladders and walkways Code of practice for the design of helical and spiral stairs	D1 /AS1
BS 5446:-	Components of automatic fire alarm systems for residential premises	
Part 1: 1990	Specification for self-contained smoke alarms and point-type smoke detectors Amends: 6863, 7648, 9628	F7 /AS1
BS 5572: 1978	Code of practice for sanitary pipework	G13 /VM1
BS 6037:-	Code of practice for the Planning, design, installation and use of permanently installed access equipment	
Part 1: 2003 Part 2: 2004	Suspended access equipment Travelling ladders and gantries	HB /SS 10 HB /SS 10
BS 6283:- Part 1: 1991	Safety devices for use with hot water systems Specification for expansion valves for pressures up to and including 10 bar	G12 /AS1
Part 3: 1991	Specification for combined temperature and pressure relief valves for pressures up to and including 10 bar	G12 /AS1
Part 4: 1991	Specification for drop-tight pressure reducing valves of nominal size up to and including DN 54 for supply for pressures up to and including 12 bar	G12 /AS1



		Where quoted
BS 6374:-	Lining of equipment with polymeric materials for the process industries	
Part 1: 1985	Specification for lining with sheet thermoplastics	G14 /VM1
Part 2: 1984	Specification for lining with non-sheet applied thermoplastics	G14 /VM1
Part 3: 1984	Specification for lining with stoved thermosetting resins	G14 /VM1
Part 4: 1984	Specification for lining with cold curing thermosetting resins	G14 /VM1
Part 5: 1985	Specification for lining with rubbers	G14 /VM1
BS 6464: 1984	Specification for reinforced plastics pipes, fittings and joints for process plants	G14 /VM1
BS 6538: 1987 Part 3: 1987	Air permeanence of paper and board Method for determination of air permeanence using the Garley apparatus	E2 /AS1
BS 6561: 1985	Specification for zinc alloy sheet and strip for building	E1 /AS1
BS 6925: 1988	Specification for mastic asphalt for building and civil engineering (limestone aggregate)	E2 /AS1
BS 7159: 1989	Code of practice for design and construction of glass-reinforced plastics (GRP) piping systems for individual plants or sites	G14 /VM1
BS 8004: 1986	Code of practice for foundations	B1 /VM4



New Zealand Pu	blications	Where quoted
Building Research	h Association of New Zealand	
BRANZ Bulletin 33	80: 1995 Thin flooring materials – 2. Preparation and laying. Appendix 1	E2 /AS1
BRANZ Bulletin 41	1: 2001 Recommended timber cladding profiles	E2 /AS1
BRANZ EM 4: 200	95 Evaluation method for jointing systems for flush finished fibre cement sheet	E2 /AS1
BRANZ EM 5: 200	5 Evaluation method for adhesives and seam tapes for butyl and EPDM rubber membranes	E2 /AS1
BRANZ House Ins	ulation Guide: 1995	E3 /AS1, H1 /VM1/AS
BRANZ Paper C1:	1978 A construction guide to home insulation (second edition)	E3 /AS1
BRANZ Technical I	paper P36: 1983 Food processing floors, a guide to design, materials and construction. W.R. Sharman	G3/ AS1
ALF Manual: 1990	Annual loss factor design manual. An aid to thermal design of buildings. M.R. Bassett, R.C. Bishop and I.S. van der Werff	H1 /VM1/Defs
Government Dep	artments and Agencies	
Department of La	abour	
Workplace exposu New Zealand: 19	re standards and biological indices for	F1 /VM1, G4 /VM1
Ministry of Agric	ulture and Fisheries	
MQ 1: 1988 Qual	approvals manual	G3/ AS1
Ministry of Econo	omic Development	
NZECP 34: 2001	Electrical safety distances	G9 /VM1
NZECP 36: 1993	Harmonic levels	G9 /VM1
NZECP 51: 2004	Homeowner/occupier's electrical wiring work in domestic installations	G9 /AS1
NZECP 54: 2001	Installation of recessed luminaires and auxiliary equipment	C /AS1, G9 /AS1



	Where quoted
Ministry of Transport	
Power Lift Rules: 1989	D2 /AS2, HB /SS 8
Rules for power lifts not exceeding 750 watts (one horsepower): 1985	D2 /AS2, HB /SS 8
New Zealand Forest Research Institute	
Measurement of moisture content of assembled timber framing: 1993	E2 /AS1
New Zealand Meteorological Service	
Average degree-day tables – selected NZ stations. (Miscellaneous publication 159, 1978)	H1/Defs
COMMENT:	
This publication is no longer available, but the relevant information is summarised in the Degree-days data sheets of the BRANZ ALF Manual.	
Transit NZ	
Bridge manual: Design and evaluation: 1994 Amend: 1	B1 /VM1
New Zealand Legislation	
Fencing of Swimming Pools Act 1987	F4 /AS1
Fire Safety and Evacuation of Buildings Regulations 1992	C /AS1
Gas Regulations 1993	G12 /AS1
Hazardous Substances and New Organisms Act 1996	F3 /VM1
Hazardous Substances (Classification) Regulations 2001	F3 /VM1
Hazardous Substances (Classes 1 to 5 Controls) Regulations 2001	F3 /VM1
Hazardous Substances (Dangerous Goods and Scheduled Toxic Substances) Transfer Notice 2004	F3 /VM1
Hazardous Substances (Emergency Management) Regulations 2001	F3 /VM1
Health & Safety in Employment Act 1992	HB/SS 9
Resource Management Act 1991	E1 /VM1
New Zealand Geomechanics Society	
Guidelines for the field descriptions of soils and rocks in engineering use. Nov 1988	B1 /VM1
New Zealand Concrete Masonry Manual: 1999 Cement and Concrete Association of New Zealand	E2 /AS1
New Zealand Metal Roof and Wall Cladding Code of Practice: 2003 New Zealand Metal Roofing Manufacturers Inc	E2 /AS1



Australian Publications	Where quoted
Building Control Commission, State of Victoria, Australia	O/AC1
Smoke management in large spaces in buildings: 1998 Milke and Klote	C /AS1
Australia/NZ Publications	
Australian and New Zealand Environment and Conservation Council	
Guidelines for assessment and management of contaminated sites: 1992	F1 /VM1
British Publications	
Building Research Establishment (UK)	
BRE Defect action sheet DAS 131: May 1989 External walls: Combustible external plastics insulation: Horizontal fire barriers	C /AS1
BRE Report 135: 1988 Fire performance of external thermal insulation for walls in multi-storey buildings. Rogowski B.F., Ramaprasad R., Southern J.R.	C /AS1
BRE Report 186: 1990 Design principles for smoke ventilation in enclosed shopping centres. Morgan and Gardner	C /AS1
BRE Report 258: 1992 Design approaches for smoke control in atrium buildings. Hansell and Morgan	C /AS1
Chartered Institution of Building Services Engineers, London	
CIBSE Code Series A: 1996	G4 /VM1

Air distribution systems



		Where quoted
International Pul	blications	
EIFS Industry Me	mbers Association	
EIMA 101.91: 199	2 Standard Guide for resin of resin coated glass fibre mesh in exterior insulation and finish systems (EIFS), Class PB.	E2 /AS1
The European Co	mmittee for Standardisation	
EN 81:-	Safety rules for the construction and installation of lifts	DOVACA LIDVOC O
Part 1: 1998 Part 2: 1998	Electric lifts Hydraulic lifts	D2 /AS1, HB /SS 8 D2 /AS1, HB /SS 8
EN 115: 1983	Safety rules for the construction of escalators and passenger conveyors	D2 /AS3, HB /SS 8
EN 12380: 1999	Air admittance valves for drainage systems – Requirements and test methods	G13 /AS1
Eurocode DD ENV Eurocode 1: Part 2.2:	Basis of design actions on structures	C /AS1
Part 2.2.	Actions on structures exposed to fire	C/AST
International Sta	ndards Organisation, Geneva	
ICBO Evaluation S	ervices Inc AC148: Acceptance criteria for flashing materials	E2 /AS1
ISO 140/VII: 1978	Field measurements of impact sound insulation of floors	G6 /VM1
ISO 834: 1975	Fire resistance tests – elements of building construction	C /AS1
ISO 3008: 1976	Fire resistance tests – door and shutter assemblies	C /AS1
ISO 3009: 1976	Fire resistance tests – glazed elements	C /AS1
ISO 9223: 1992	Corrosion of metals and alloys; corrosivity of atmospheres; classification	E2 /AS1
ISO 11600: 2002	Building Construction – Jointing products Classification and requirements for sealants	E2 /AS1
ISO/TS 15510: 200	03 Stainless steels – chemical composition	E2 /AS1
Underwriters Lab	poratories Inc	
UL 217: 1997	Single and multiple station smoke alarms	F7 /AS1
Underwriters' Lal	boratories of Canada	
CAN/ULC S531: 1995 Smoke alarms		F7 /AS1



World Health Organisation/Food and Agriculture Organisation

Environmental Health Criteria 70

"Environment health criteria" for various chemicals

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

Geneva: 1989

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

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

Geneva: 1987

Where quoted

F1/VM1

F1/VM1

F1/VM1

F1/VM1



United States of	America Publications	Where quoted
	America Fublications	
American Iron an	d Steel Institute	
Fire-safe structura	l steel – a design guide: 1983	C /AS1
American Nation	al Standards Institute and	
American Society	y of Mechanical Engineers	
ANSI/ASME B16.1	: 1989 Cast iron pipe flanges and flanged fittings, Class 25, 125, 250 and 800	G10 /AS1
ANSI/ASME B16.3	8: 1985 Malleable-iron threaded fittings, Classes 150 and 300	G10 /AS1, G14 /VM1
ANSI/ASME B16.5	5: 1988 Pipe flanges and flanged fittings, steel-nickel alloy and other special alloys	G10 /AS1, G14 /VM1
ANSI/ASME B16.9	9: 1990 Factory-made wrought steel butt-welding fittings	G10 /AS1, G14 /VM1
ANSI/ASME B31.3	3: 1990 Chemical plant and petroleum refinery piping	G14 /VM1
ANSI B2.1: 1968	Screwing and socketing	G14 /VM1
ANSI B16.11: 198	0 Forged steel fittings, socket-welding and threaded	G10 /AS1, G14 /VM1
ASME Boiler and	pressure vessel code-VIII pressure vessels	G14 /VM1
American Petrole	eum Institute	
API SPEC 5L: 199	1 Specification for line pipe	G10 /AS1, G14 /VM1
API STD 620: 199	Design and construction of large, welded, low-pressure storage tanks	G14 /VM1
API STD 650: 198	8 Welded steel tanks for oil storage	G14 /VM1
API STD 1104: 19	88 Welding of pipelines and related facilities	G10 /AS1, G14 /VM1
	y of Heating, Refrigeration and Air pineers (ASHRAE)	
Design of smoke	management systems. Klote and Milke 1992	C /AS1
American Society	y of Sanitary Engineers	
ASSE 1050: 1991	Performance requirements for air admittance valves for plumbing DWV systems stack type devices	G13 /AS1
ASSE 1051: 1992	Performance requirements for air admittance valves for plumbing drainage systems	G13 /AS1
American Society	y for Testing and Materials	
ASTM A 53 – 90a	Specification for pipe, steel, black and hot-dipped, zinc-coated welded and seamless	G10 /AS1, G14 /VM1



	Where quoted
ASTM A 106 – 91a Specification for seamless carbon steel pipe for high temperature service	G10 /AS1
ASTM C 236: 1987 Standard test method for steady state thermal performance of building assemblies by means of a guarded hot box	E3 /AS1
ASTM D 1143: 1981 Test method for piles under static axial compressive load	B1 /VM4
ASTM C 1330: 2002 Standard Specification for Cylindrical Sealant Backing for use with Cold Liquid Applied Sealants	E2 /AS1
ASTM C 1549: 2002 Standard Test Method for Determination of Solar Reflectance Near Ambient Temperature Using a Portable Solar Reflectometer	E2 /AS1
ASTM D 1667: 1997 Standard Test Specification for Flexible Cellular Materials – Vinyl Chloride Polymers and Capolymers (Closed-cell foam)	E2 /AS1
ASTM D 2240: 2003 Standard Test method for Rubber Property	E2 /AS1
ASTM D 6134: 1997 Standard Specification for Vulcanised Rubber Sheets Used in Waterproofing Systems	
ASTM E 96: 1992 Standard test methods for water vapour transmission of materials	E2 /AS1
ASTM E 336: 1990 Method for measurement of airborne sound insulation in buildings	G6 /VM1
ASTM E 413: 1987 Classification for rating sound insulation	G6 /VM1
ASTM E 492: 1990 Test method for laboratory measurement of impact sound transmission through floor-ceiling assemblies using a tapping machine	G6 /√M1
ASTM E 903: 1996 Standard Test Method for Solar Absorbance, Reflectance, and Transmittance of Materials Using Integrating Spheres	E2 /AS1
ASTM E 989: 1989 Classification for determination of impact insulation class (IIC)	G6 /VM1
ASTM E 2098: 2000 Standard Test Method for Determining Tensile Breaking Strength of Glass Fibre Reinforcing Mesh for Use in Class PB Exterior Insulation and Finish Systems (EIFS), after Exposure to a Sodium Hydroxide Solution	E2 /AS1
ASTM E 2134: 2001 Standard Test Method for Evaluation the Tensile- Adhesion Performance of an Exterior Insulation amd Finish System (EIFS)	E2 /AS1



		Where quoted
ASTM G 154: 200	O Standard Practice for Operating Fluorescent Light Apparatus for UV Exposure of Nonmetallic Materials	E2 /AS1
ASTM G 155: 200	O Standard Practice for Operating Xenon Arc Light Apparatus for UV Exposure of Nonmetallic Materials	E2 /AS1
International Cor	nference of Building Officials, America	
Uniform Building	Code Standard 4.1: 1997 Proscenium fire safety curtains	C/AS1
Uniform Building	Code Standard 26-2: 1997 Test method for the evaluation of thermal barriers	C /AS1
National Fire Pro	tection Association of America	
NFPA 92B: 1995	Guide for smoke management systems in malls, atria and large areas	C /AS1, F6 /AS1
NFPA 285: 1998	Standard method of test for the evaluation of flammability characteristics of exterior non load bearing wall assemblies containing components using the intermediate scale, multi-storey test apparatus	C /AS1
United States En	vironmental Protection Agency (EPA)	
USEPA SW 846: 1	1986 Test methods for evaluating solid waste	F1 /VM1
EPA/540/1 - 89/00	O2: 1989 Risk assessment guidance for Superfund, Vol 1. Human health evaluation manual (Part A) Interim final. Prepared by USEPA Office of Emergency and Remedial Response	F1 /VM1
Federal Specificat	ion Standard TT-S-00230C: Elastomeric type, cold applied single component for caulking, sealing, and glazing in buildings, building areas (plazas, decks, pavements, and other structures)	E2 /AS1
Cross-connection	Control Manual: 1989	HB /SS 7
United States Pu	ıblic Health Service	
for Toxicological S	les on individual chemicals. Prepared by the Agency Substances and Disease Registry, in collaboration with ental Protection Agency	F1 /√M1
Miscellaneous Pu	ublication	
	ll's Toxicology. The basic science of poisons. 4th ed. /ork 1991. Klassen CD, Amdur MO, Doull J (Eds)	F1 /VM1

ARCHIVED



Definitions

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

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

Source Key:

Definition

BA04 Building Act 2004

BR1 Building Regulations 1992

BR2 Building (Specified Systems, Change the Use, and Earthquake-prone Buildings)

Regulations 2005

Code New Zealand Building Code

EA Electricity Act 1992 **FSA** Fire Service Act 1975

HB Handbook

HSNOA Hazardous Substances and New Organisms Act 1996

LGA Local Government Act 1974 or 2002

PGDA Plumbers, Gasfitters, and Drainlayers Act 1976

RA Railway Act 2005

RMA Resource Management Act 1991

CD-(Code clause) Compliance Document for given Code clause (eg, CD-G13)

DG Builidng Consent Authority Development Guide

Definition	Source
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 <i>Building Code</i> .	BA04
Access chamber A chamber with working space at <i>drain</i> level through which the <i>drain</i> passes either as an open channel or as a pipe incorporating an <i>inspection point</i> .	CD-E1, CD-G13
Access point A place where access may be made to a <i>drain</i> or <i>discharge pipe</i> for inspection, cleaning or maintenance; and may include a <i>cleaning eye</i> , <i>inspection point, rodding point, inspection chamber</i> or <i>access chamber</i> .	CD-G13
Access route A continuous route that permits people and goods to move between the apron or <i>construction</i> edge of the <i>building</i> to spaces within a <i>building</i> , and between spaces within a <i>building</i> .	Code

Source



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

- as a subdivision—
 - (i) approved by way of a subdivision consent granted under the Resource Management Act 1991; or
 - (ii) allowed or granted under any other Act; and
- (c) that is-
 - (i) subject to the Land Transfer Act 1952 and comprised in 1 certificate of title or for which 1 certificate of title could be issued under that Act; or



Definition Source (ii) not subject to that Act and was acquired by its owner under 1 instrument of conveyance (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 **BA04** and extend the building. Alternative solution means a solution that is compliant with the Building Code **HB** but is not part of the Compliance Document. Code **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 CD-E2 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 CD-C appliance. It may be either part of the building structure or an overlay on a combustible floor. **Appurtenant structure**, in relation to a *dam*, means a structure that is integral **BA04** to the proper functioning of the dam. CD-E2 **Apron flashing** A near flat or sloping *flashing* with a vertical upstand, used at junctions between roofs and walls. CD-F2 **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):



Definition	Source
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.	CD-G4
Authority means the Building Industry Authority that was established under the Building Act 1991.	НВ
COMMENT: The Authority was dissolved under the <i>Building Act 2004</i> and its functions and powers transferred to the Department of Building and Housing.	
В	
Backflow A flowing back or reversal of the normal direction of the flow caused by <i>back-pressure</i> and includes <i>back-siphonage</i> .	CD-C
Backflow prevention device A device that prevents backflow.	CD-C, CD-G12
Back-pressure A <i>backflow</i> condition caused by the downstream pressure becoming greater than the supply pressure.	CD-G12
Back-siphonage <i>Backflow</i> condition caused by the supply pressure becoming less than the downstream pressure.	CD-G12
Baluster A post providing the support for the top and bottom rails of a barrier.	CD-B1, CD-B2
Balustrade The infill parts of a barrier (typically between floor and top rail).	CD-B2, CD-F4
Basement Any <i>firecell</i> or part of a <i>firecell</i> below the level of the lowest <i>final exit</i> .	CD-C
COMMENT: Because <i>fire safety precautions</i> are increased with increases in <i>escape height</i> , the precautions for <i>basements</i> increase with <i>basement</i> depth. Thus a single floor <i>building</i> with one <i>basement</i> level is treated as a two floor <i>building</i> , a single floor <i>building</i> with three <i>basement</i> levels as a four floor <i>building</i> and the requirements of C/AS1 Table 4.1 shall be applied downwards as opposed to upwards for levels above ground.	
Base metal thickness (BMT) The thickness of the bare or base metal before any subsequent coating, such as galvanizing.	CD-E2
Bird's beak A double fold applied to the edge of a horizontal metal <i>flashing</i> to stiffen the edge and to assist in deflecting moisture away from the <i>cladding system</i> below. Refer also <i>Kick-out</i> and <i>Drip edge</i> .	CD-E2
COMMENT: A bird's beak is used at the bottom of a capping to deflect water away from the enclosed balustrade cladding.	
Boundary means any <i>boundary</i> which is shown on a survey plan approved by the Chief Surveyor and which is deposited in the Titles Office whether or not a new title has been issued.	CD-C
Boundary joist A joist running along the outer ends of the floor joists.	CD-B1
Branch discharge pipe A <i>discharge pipe</i> that serves one or more <i>fixture discharge pipes</i> for any one floor.	CD-G13



Definition Source

Branch vent pipe A *vent pipe* that serves two or more *fixture vent pipes*.

CD-G13

Building has the meaning given to it by sections 8 and 9 of the *Building Act 2004*. **BA04**

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; and2(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."



Definition Source

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.

HB

COMMENT:

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

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

HB

COMMENT:

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



Definition	Source
Building Code means the regulations made under section 400 of the <i>Building Act 2004</i> .	BA04
COMMENT: No regulations have yet been made under section 400 of the Building Act 2004. However, the <i>Building Code</i> 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 <i>building work</i> granted by a <i>building consent authority</i> under section 49 of the <i>Building Act 2004</i> .	BA04
Building consent accreditation body means the person referred to in section 248(2) of the <i>Building Act 2004</i> .	BA04
Building consent authority (BCA) means a <i>person</i> whose name is entered in the register referred to in section 273(1)(a) of the <i>Building Act 2004</i> .	BA04
Building element Any structural and non-structural component and assembly incorporated into or associated with a <i>building</i> . Included are <i>fixtures</i> , services, <i>drains</i> , permanent mechanical installations for access, glazing, partitions, ceilings and temporary supports.	Code
Building height The vertical distance between the floor level of the lowest <i>final exit</i> from the <i>building</i> ; and the highest occupied floor level containing or supporting any <i>purpose group</i> other than IE, IA or ID, or penthouses used to enclose <i>stairways</i> , liftshafts or machinery rooms located on or within the roof.	Code
Building levy means a levy payable under section 53 of the Building Act 2004.	BA04
Building method or product has the meaning given to it by section 20 of the <i>Building Act 2004</i> . Section 20(2)(c) states:	BA04
"(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."	
Building performance index (BPI) in relation to a <i>building</i> , means the energy from a <i>network utility operator</i> or a depletable resource (measured in kilowatthours per square metre of floor area and per <i>degree-day</i> , and calculated using the Building Research Association of New Zealand's Annual Loss Factor Design Manual 1990 or some other method that can be correlated with that manual) needed to maintain the <i>building</i> at a constant internal temperature for the period from 1 May to the close of 31 August under the following standard conditions:	Code
(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 the period being considered of 1000 kWh for the first 50 m ² of floor area and 10 kWh for every additional square metre of floor area.	
(d)No allowance for: -	
(i) carpets, or	
(ii) blinds, curtains, or drapes, on windows.	

and recesses and 0.75 for site shading).

(e) Windows to have a shading coefficient of 0.6 (made up of 0.8 for windows



Definition Source

Building work— BA04

(a) means work—

- (i) for, or in connection with, the *construction*, *alteration*, demolition, or removal of a *building*; and
- (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

(b)includes sitework; and

- (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 this Act; and
- (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**]

Building warrant of fitness (BWoF) means the warrant of fitness an *owner* of a *building* must supply to a *territorial authority* under section 108 of the *Building Act 2004.*

Building wrap A building paper, synthetic wrap or sheathing used as part of the **CD-E2** 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*.

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*.

C

Cable car— BA04

(a) means a vehicle—

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

And

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



Definition	Source
Cantilevered deck A deck where no support is provided at the outer extremities of the deck.	CD-E2
COMMENT: Cantilevered decks are often constructed by extending framing members through the cladding beyond the building face. Cantilevered decks are sometimes known as balconies.	
Capping A <i>flashing</i> formed to cover the top of an <i>enclosed balustrade</i> or <i>parapet</i> . Also known as a coping.	CD-E2
Cavity barrier A <i>construction</i> provided to close openings within a <i>concealed space</i> against the passage of <i>fire</i> , or to restrict the spread of <i>fire</i> within such spaces.	CD-C
Cavity batten A vertical packing member used to create a <i>drained cavity</i> as part of a <i>cladding system</i> .	CD-E2
Cavity spacer A short block used to provide intermittent support for fixings or pipe penetrations through a <i>drained cavity</i> , while not interrupting drainage within the cavity.	CD-E2
A <i>cavity spacer</i> is required to be set to a slight fall (5° minimum from horizontal) to allow drainage of any moisture from the top.	
Cavity wall A term used to describe a wall that incorporates a drained cavity.	CD-E2
Certificate of acceptance means a certificate issued under section 96 of the <i>Building Act 2004</i> .	BA04
Certificate for public use means a certificate issued under section 363A of the <i>Building Act 2004</i> .	НВ
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.	BR2
Check valve (or non-return valve) A valve that permits flow in one direction but prevents a return flow and is part of a <i>backflow prevention device</i> .	CD-G12
Chimney A <i>non-combustible</i> structure which encloses one or more <i>flues</i> , <i>fireplaces</i> or other heating appliances.	CD-B1, CD-C, CD-G4
Chimney back The non-combustible wall forming the back of a fireplace.	CD-B1, CD-C
Chimney base That part of a chimney which houses the fireplace.	CD-B1
Chimney breast The front <i>fireplace</i> wall <i>construction</i> above the <i>fireplace</i> opening.	CD-C
Chimney jambs The side walls of a fireplace.	CD-B1, CD-C
Cladding The exterior weather-resistant surface of a <i>building</i> .	CD-E2
COMMENT:	

Includes any supporting substrate and, if applicable, surface treatment.



Definition	Source
Cladding system The weatherproof enclosure of a <i>building</i> , including <i>building</i> wraps, claddings and their fixings, windows, doors and all penetrations, flashings, seals, joints and junctions.	CD-E2
Where required by E2/AS1, the cladding system shall include a drained cavity.	
Classified use means a classified use listed in clause A1 of the Building Code.	BR1
Cleaning eye A small <i>diameter access point</i> usually formed as part of a fitting or trap.	CD-G13
Code compliance certificate means a certificate issued by a <i>building consent</i> authority under section 95 of the <i>Building Act 2004</i> .	BA04
Combined waste pipe A discharge pipe which serves two or more waste pipes.	CD-G13
Combustible See non-combustible.	CD-B1, CD-C
Combustion appliance A slow combustion stove, a free standing metal cone fireplace, a cast iron pot belly stove, an oil burning space heater, or a vented gas burning heater.	Code
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 <i>service ramp</i> or <i>accessible</i> ramp.	CD-D1
Common stairway A <i>stairway</i> which is used, or intended to be used, by the public whether as of right or not, and is not a <i>private stairway</i> , <i>service stairway</i> or <i>accessible stairway</i> .	CD-D1
Compliance document has the meaning given to it by section 22 of the Building Act 2004.	BA04
Section 22 states:	
 "22. Compliance document for use in establishing compliance with Building Code (1) The chief executive may, by notice in the Gazette, issue a document for use in establishing compliance with the Building Code (a Compliance Document (2) A person who complies with a Compliance Document must, for the purposes of this Act, be treated as having complied with the provisions of the Building Code to which the document relates. (3) Subsection (2) is subject to any regulations referred to in section 20". 	е
Compliance schedule means a <i>compliance schedule</i> required under section 100 of the <i>Building Act 2004</i> .	BA04
Compliance schedule statement means a statement issued by a territorial	НВ

or regional authority referred to in section 105(e) of the Building Act 2004.

Definition



Source

Concealed space Any part of the space within a building that cannot be seen Code 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. Constant pressure means subjected to the sustained force of fluid forming the DG 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, **BA04** and relocate the building. **Contaminant** includes any substance (including gases, odorous compounds, **RMA** 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 CD-F8 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 CD-E2 movement. See also Expansion joint. Cool location means a location in New Zealand where the degree-day total Code is 920 or more. Cross connection Any actual or potential connection between a potable water **CD-G12** supply and a source of contamination. D Dam **BA04** (a) means an artificial barrier, and its appurtenant structures, that— (i) is constructed to hold back water or other fluid under constant pressure so as to form a reservoir; and (ii) is used for the storage, control, or diversion of water or other fluid; and

(iii) retains 3 or more metres depth, and holds 20,000 or more cubic metres

volume, of water or other fluid; and



Definition Source

(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.

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 **BA04** 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

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 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. CD-F8

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.

DG

CD-E2

CD-F8

CD-C

CD-E2

CD-B2, CD-E2



Definition	Source
Degree-day in relation to any location on any day, –	Code
(a) If a base temperature of 15°C is greater than the mean of the maximum and minimum outdoor temperatures at that location on that day, means the number of degrees Celsius by which that base temperature is greater than that mean.	
(b) If a base temperature of 15°C is not greater than the mean of the maximum and minimum outdoor temperatures at that location on that day, means zero.	
Degree-day total in relation to any location, means the sum of the <i>degree-days</i> for that location for the period of 1 May to 31 August, as derived from Average Degree-day Tables – Selected NZ Stations (Miscellaneous Publication 159, 1978 of the New Zealand Meteorological Service).	
Department means the Department of Building and Housing.	НВ
Determination means a determination made by the Chief Executive under subpart 1 of Part 3 of the <i>Building Act 2004</i> .	BA04
Developed length The total length along the centre line of a pipe including fittings and bends.	CD-G13
Diameter (or bore) The nominal internal diameter.	CD-G12, CD-G13
Direct fixed A term used to describe a wall <i>cladding</i> attached directly to the wall <i>framing</i> , without the use of a <i>drained cavity</i> .	CD-E2
Discharge pipe Any pipe that is intended to convey discharge from <i>sanitary fixtures</i> or <i>sanitary appliances</i> .	CD-G13
Discharge stack A <i>discharge pipe</i> that has one or more <i>discharge pipe</i> connections, and which is vented at one end via a <i>discharge stack vent</i> .	CD-G13
Discharge stack vent A <i>vent pipe</i> connected to the top of the <i>discharge stack</i> .	CD-G13
Discharge unit The unit of measure for the discharge (hydraulic load) in the <i>plumbing system</i> , and is based on the rate, duration and frequency of discharge from a <i>sanitary fixture</i> or <i>sanitary appliance</i> .	CD-G13
Doorset A complete assembly comprising a door leaf or leaves including any glazed or solid panels adjacent to or over the leaves within the door frame including hardware or other inbuilt features; and a door frame, if any, with its fixings to the wall and, for a sliding or tilting door, all guides and their respective fixings to the lintel, wall or sill.	CD-C, CD-F8
Dormer or dormer window A framed structure that projects from a sloping roof, and has a window at its outer end.	CD-E2
Drain A pipe normally laid below ground level including fittings and equipment and intended to convey <i>foul water</i> or <i>surface water</i> to an <i>outfall</i> .	Code



Definition	Source
Drained cavity A cavity space, immediately behind a wall <i>cladding</i> , that has vents at the base of the wall. Also known as a drained and vented cavity and referred to in E2/AS1 as a cavity. A <i>drained cavity</i> assists drying by allowing water which occasionally penetrates the wall <i>cladding system</i> to drain to the exterior of the <i>building</i> , and any remaining moisture to dry by evaporation. Where E2/AS1 requires a nominal20 mm <i>drained cavity</i> , the depth shall be between limits of 18 mm and 25 mm. For definition of masonry veneer cavity refer to SNZ HB 4236.	
Drain vent pipe Any pipe which is intended to permit the movement of air into and out of the <i>drain</i> and <i>sewer</i> .	CD-G13
Draught diverter A device, without moving parts, fitted in the <i>flue</i> of an appliance for isolating the combustion system from the effects of pressure changes in the secondary <i>flue</i> .	CD-G4, CD-C
Drip edge Fold(s) applied to the edge of a horizontal metal <i>flashing</i> to deflect moisture away from the <i>cladding system</i> below. Refer also <i>Bird's beak</i> and <i>Kick-out</i> .	CD-E2
Durable Resistant to wear and decay.	CD-B2
Dwang A short horizontal member fixed between vertical <i>framing</i> timbers. Also known as nogging.	CD-E2
E	
Early childhood centre A facility used for the education or care of children under the age of six, and required to be licensed under the Education (Early Childhood Centres) Regulations 1998.	CD-C
Eaves That part of the roof <i>construction</i> , including <i>cladding</i> , fascia and gutter, that extends beyond the exterior face of the wall.	CD-E2
EIFS (Exterior Insulation and Finish System) A polystyrene sheet-based cladding system that uses mesh reinforced polymer-modified cement-based or polymer-based plaster base coats and a protective top coating.	CD-E2
Electrical fixed appliance An electrical appliance which is fixed-wired to the <i>electrical installation</i> , or intended to remain permanently attached and form part of the <i>building</i> .	Code
Electrical installation Any <i>electrical fixed appliances</i> and components used in the reticulation of electricity, which are intended to remain permanently attached to and form part of the <i>building</i> .	Code
Electrical supply system The source of electricity external to the <i>electrical installation</i> .	Code
Electrolytic corrosion Galvanic corrosion commonly resulting from the contact of two dissimilar metals when an electrolyte such as water is present.	CD-E2
Enclosed balustrade A timber-framed barrier with <i>cladding</i> across all exposed faces.	CD-E2



Definition	Source
Enclosed deck A <i>deck</i> , whether over an interior or exterior space, that has an impermeable upper surface and is closed on the underside. May also be known as a balcony.	CD-E2
Energy work means—	BA04
(a) gasfitting; or	
(b) prescribed electrical work	
Energy work certificate means a certificate of the kind referred to in section 19(1)(e) of the <i>Building Act 2004</i> .	BA04
Envelope complexity The categorisation of the complexity of the total <i>building</i> envelope into one of four classes, depending on the particular features of the <i>building</i> as specified in E2/AS1.	CD-E2
EPDM (Ethylene Propylene Diene Monomer) A thermosetting synthetic rubber used as a resilient part of a sealing washer, or as a roof <i>membrane</i> .	CD-E2
Escape height The height between the floor level in the <i>firecell</i> being considered and the floor level of the required <i>final exit</i> which is the greatest vertical distance above or below that <i>firecell</i> .	CD-C, CD-F3 CD-F6
 COMMENT: 1. It is necessary only to use the greatest height to the exits required for the <i>firecell</i> being considered, even though the <i>building</i> may have other <i>final exits</i> at lower or higher levels. 2. Where the <i>firecell</i> contains <i>intermediate floors</i>, or upper floors within <i>household units</i> the <i>escape height</i> shall be measured from the floor having the greatest vertical separation from the <i>final exit</i>. 	
Escape route A continuous unobstructed route from any <i>occupied space</i> in a <i>building</i> to a <i>final exit</i> to enable occupants to reach a <i>safe place</i> , and shall comprise one or more of the following: <i>open paths, protected paths</i> and <i>safe paths</i> .	Code
COMMENT: Doors are not obstructions in an <i>escape route</i> provided they comply with C/AS1 Part 3 and D1/AS1.	
Essential service In the context of an <i>electrical installation</i> means emergency lighting, firemen's lifts, alarms, water pumps, sprinklers, detectors, ventilation systems and public address systems necessary for the safety of people in <i>buildings</i> .	Code
Estimated value in relation to <i>building work</i> , means the estimated aggregate of the values, determined in accordance with section 10 of the Goods and Services Tax Act 1985, of all goods and services to be supplied for the <i>building work</i> .	BA04
Evacuation time The time taken by the occupants of the <i>building</i> to evacuate the <i>building</i> to a <i>final exit</i> .	Code
Exitway All parts of an <i>escape route</i> protected by <i>fire</i> or <i>smoke separations</i> , or by distance when exposed to open air, and terminating at a <i>final exit</i> .	Code
Expansion joint A joint designed to prevent damage by accommodating movement. See also <i>Control joint</i> .	CD-E2



Definition	Source
External wall Any exterior face of a <i>building</i> within 30° of vertical, consisting of <i>primary</i> and/or <i>secondary elements</i> intended to provide protection against the outdoor environment, but which may also contain <i>unprotected areas</i> .	Code
COMMENT: A roof is an external wall if within 30° of the vertical.	
F	
Factor of safety in relation to any <i>building</i> means the ratio of resisting forces to applied forces for a given loading condition. It is generally expressed to two significant figures.	CD-B1
Falsework, in relation to building work or the maintenance of a building,—`	BA04
(a) means any temporary structure or framework used to support materials, equipment, or an assembly; and	
(b)includes steel tubes, adjustable steel props, proprietary frames, or other means used to support a permanent structure until it becomes self-supporting; but	
(c) does not include scaffolding or cranes used for support.	
Final exit The point at which an <i>escape route</i> terminates by giving direct access to a <i>safe place</i> .	Code
COMMENT: Final exits are commonly the external doors from a ground floor, but this applies only if such doors open directly onto a safe place. If a safe place can be reached only by passing down an alley, or across a bridge, then the final exit is not reached until the end of such an alley or bridge. Final exits, therefore, should be seen strictly as a point of arrival, rather than as any particular element of a building. They are determined entirely by the definition of safe place.	
Finished ground level (FGL) The level of the ground after all backfilling, landscaping and surface paving has been completed.	CD-E2

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*.

Fire The state of combustion during which flammable materials burn producing

heat, toxic gases, or smoke or flame or any combination of these.

of fire separations, external walls, roofs, and floors.

Firecell Any space including a group of contiguous spaces on the same

or different levels within a building, which is enclosed by any combination

Code

Code



Definition Source Firecell rating (F) The fire resistence rating (FRR) intended to prevent fire CD-C spread to another firecell, for sufficient time to provide for safe evacuation of occupants and protection of adjacent housing units and sleeping areas in the building of fire origin and fire fighters engaged in fire fighting and rescue operations. COMMENT: 1. The purpose of the *firecell rating* is to prevent premature collapse of elements of structure in order to protect: (a) The occupants, some of whom may have to remain in the building for some time while evacuation proceeds, particularly if the building is a large one. (b) Adjacent household units and sleeping areas in the building of fire origin. (c) Fire fighters engaged on rescue and fire fighting operations (although this is limited because property protection in the building of origin is not a matter covered by the New Zealand Building Code except as required by b) above). 2. The use of the F rating to determine the FRR of a primary or secondary element is discussed in C/AS1 Part 5. Fire damper A device with a specified FRR complete with fixings and CD-C operating mechanism for automatically closing off an airway where it passes through a fire separation. **COMMENT:** An airway may be a duct, plenum, ceiling space, roof space or similar construction used for the passage of ventilating air. Fire door A doorset, single or multi-leaf, having a specific fire resistance rating, CD-C 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. COMMENT: Requirements for fire doors are given in C/AS1 Paragraphs 6.19.1 and 6.19.8 and Appendix C, Paragraph C 8.1. **Fire hazard** means the danger of potential harm and degree of exposure **BA04** 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. Fire hazard category (FHC) The number (graded 1 to 4 in order of increasing CD-C 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. COMMENT: Fire hazard categories are identified in C/AS1 Table 2.1.

Code

theoretically or empirically, as applicable.

Fire intensity The rate release of calorific energy in watts, determined either



Definition	Source
Fire load The sum of the net calorific values of the <i>combustible</i> contents which can reasonably be expected to burn within a <i>firecell</i> , including furnishings, built-in and removable materials, and <i>building elements</i> . The calorific values shall be determined at the ambient moisture content or humidity. (The unit of measurement is MJ.)	Code
Fire load energy density (FLED) The total <i>fire load</i> divided by the <i>firecell</i> floor area. In this calculation the floor area shall include circulation and service spaces, but exclude <i>exitways</i> and <i>protected shafts</i> .	CD-C
COMMENT: The total <i>fire load</i> is converted to <i>fire load</i> energy terms in megajoules (MJ) for calculation of the $FLED$ (MJ/m ²).	
Fireplace A space formed by the <i>chimney back</i> , the <i>chimney jambs</i> , and the <i>chimney breast</i> in which fuel is burned for the purpose of heating the room into which it opens.	CD-C, CD-B1
Fire resistance rating (FRR) The term used to describe the minimum <i>fire</i> resistance required of <i>primary</i> and <i>secondary elements</i> as determined in the <i>standard test</i> for <i>fire</i> resistance, or in accordance with a specific calculation method verified by experimental data from standard <i>fire</i> resistance tests. It comprises three numbers giving the time in minutes for which each of the criteria <i>stability, integrity</i> and <i>insulation</i> are satisfied, and is presented always in that order.	CD-C
COMMENT:	
1. Examples of <i>FRRs</i> are:	
(a) 30/30/15 indicating stability 30 minutes, integrity 30 minutes, insulation 15 minutes.(b) 30/-/- indicating stability 30 minutes, but no time requirement for integrity or insulation.	
(c) -/15/15 indicating no time requirement for <i>stability</i> , but 15 minutes for <i>integrity</i> and <i>insulation</i> .	
(d) 60/30/x indicating <i>stability</i> of 60 minutes, <i>integrity</i> of 30 minutes, and a requirement for <i>insulation</i> from C/AS1 Paragraph 5.6.4.	
2. C/AS1 Part 5 gives more information on FRRs.	
Fire resisting closure A <i>fire</i> rated device or assembly for closing an opening through a <i>fire separation</i> . It shall have a <i>FRR</i> of no less than that required for the <i>fire separation</i> .	Code
COMMENT: A fire resisting closure is intended to include fire doors, fire windows or access panels. In this context the opening may be used to permit passage of people or goods, or to transmit light, but does not include an opening to permit the passage of building services.	
Fire resisting glazing Fixed or openable glazing, complete with frame and fixings, mullions, transoms and glazing beads, with a specified <i>FRR</i>	CD-C

and complying with NZS 4232: Part 2.



Definition Source COMMENT: 1. The requirement for fire resisting glazing will not be met by ordinary window glass, or safety glasses, but rather by wired glass, or by special fire resisting glass shown by test to perform adequately. The nature and design of the frames also have an effect on the performance of fire resisting glazing. 2. Openable glazing is required by NZS 4232 Part 2 to be fitted with an automatic device which, in the event of fire, will close and latch the window sash. Fire safety precautions (FSPs) The combination of all methods used CD-C, CD-F7 in a building to warn people of an emergency, provide for safe evacuation, and restrict the spread of fire, and includes both active and passive protection. COMMENT This definition has the same meaning and wording as the definition of "fire safety systems" in the Building Regulations. Fire safety systems The combination of all methods used in a building Code to warn people of an emergency, provide for safe evacuation, and restrict the spread of *fire*, and includes both active and passive protection. Fire separation Any building element which separates firecells or firecells Code and safe paths, and provides a specific fire resistance rating. Fire shutter A fire rated device, complete with fixings and operating CD-C mechanism, for automatically closing off an opening in a fire separation or protected shaft. CD-C Fire stop A material or method of construction used to restrict the spread of fire within or through fire separations, and having a FRR no less than that of the fire separation. COMMENT: Fire stops are mainly used to seal around penetrations, but can also be used to seal narrow gaps between building elements. Fixture An article intended to remain permanently attached to and form Code part of a building. **CD-G13 Fixture discharge pipe** A *discharge pipe* that is used to convey waste from a single sanitary fixture or sanitary appliance to a branch discharge pipe, a discharge stack, or directly to a drain. It does not include any pipes forming part of a sanitary appliance. **CD-G13 Fixture vent pipe (trap vent)** A *vent pipe* that is connected to a *fixture* discharge pipe or the sanitary fixture itself. CD-C Flame barrier A material or system applied or installed to protect another building element from flame contact. The protection shall be effective for no less than 10 minutes exposure in the standard test for fire resistance.

COMMENT:

- 1. The principal use of *flame barriers* is to delay ignition of *foamed plastics* materials.
- 2. Refer to Appendix C Paragraph C10.1 of C/AS1 for details of the test requirements for *flame barriers*.



Definition	Source
Flame safeguard system A system consisting of a flame detector(s) plus associated circuitry, integral components, valves and interlocks the function of which is to shut off the fuel supply to the burner(s) in the event of ignition failure or flame failure.	CD-G11
Flammability index (FI) That index number for flammability, which is determined according to the <i>standard test</i> method for flammability of thin flexible materials.	CD-C
Flashing A component, formed from a rigid or flexible <i>waterproof</i> material, that drains or deflects water back outside the <i>cladding system</i> .	CD-E2
Flexible flashing tape A flexible self-adhesive <i>waterproof</i> tape. Usually used as an accessory for <i>building wraps</i> , to seal corners and intersections.	CD-E2
Flood level rim The top edge at which water can overflow from equipment or a <i>fixture</i> .	CD-G12
Floor waste An outlet located at the low point of a graded floor or in a level floor designed to receive accidental or intentional discharges.	CD-E3, CD-G13
Floor waste pipe A pipe that receives the discharge from a <i>floor waste</i> and that discharges outside the <i>building</i> or to the <i>foul water</i> drainage or sanitary <i>plumbing system</i> .	CD-G13
Flue The passage through which the products of combustion are conveyed to the outside	CD-B1, CD-B2, CD-C, CD-G4, CD-G11
Flue liner Pipes or linings of fire clay, metal or fire brick, surrounding flues.	CD-C
Flue system A series of interconnecting <i>flue</i> pipe casings which form a safe passage <i>(flue)</i> for conveying products of combustion from within an appliance to the outside of a <i>building</i> or structure.	CD-C
Flush-finished The description of a <i>cladding</i> and joints system which relies on a protective coating applied to the face of the <i>cladding</i> to prevent the penetration of water.	CD-E2
Foamed plastics <i>Combustible</i> 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 <i>foamed plastics</i> are latex foams, polyethylene foams, polyvinyl chloride foams, expanded or extruded polystyrene foams, phenolic foams, ureaformaldehyde foams, polyurethane foams and polychloropene foams.	CD-C

COMMENT:

- 1. Foamed plastics may be rigid or flexible, but rigid foams are the most common in building products. When burnt they tend to generate high levels of heat energy (kJ/kg) and varying quantities of smoke and other toxic gases depending on the nature and volume of the particular product.
- 2. Where doubt exists as to whether a *building* material is *foamed plastics*, an opinion should be sought from a *person* or organisation with appropriate skill and experience in *fire* engineering. That opinion should be included with the *building consent* application to the *building consent authority*.



Definition	Source
Forced or induced draught appliance An appliance where all or part of the air for combustion is provided by a fan or other mechanical device which is an integral part of the combustion system.	CD-G4
Former Act means the Building Act 1991.	BA04
Foul water The discharge from any sanitary fixture or sanitary appliance.	Code
Foul water drainage system <i>Drains,</i> joints and fittings normally laid underground and used specifically for the conveyance of water from the <i>plumbing system</i> to an <i>outfall</i> .	Code
Framing Timber members to which <i>lining</i> , <i>cladding</i> , flooring, or decking is attached; or which are depended upon for supporting the structure, or for resisting forces applied to it.	CD-E2
Free outlet (push through) In the context of <i>storage water heaters</i> means a <i>water heater</i> with a tap on the cold water inlet so designed that the hot water is discharged through an open outlet.	CD-G12
Functional requirements in relation to a <i>building</i> , means those functions which a <i>building</i> is to perform for the purposes of the <i>Building Act 2004</i> .	BA04
G	
Gantry A structure covering a public way providing protection from both the side and overhead.	CD-F5
Gasfitting has the meaning given to it by section 2 of the Plumbers, Gasfitters, and Drainlayers Act 1976.	BA04/PGDA

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:]"



Definition Source

Gather That part of a *chimney* where the transition from *fireplace* to stack occurs

CD-B1

Good ground means any soil or rock capable of permanently withstanding an ultimate bearing pressure of 300 kPa (i.e. an allowable bearing pressure of 100 kPa using a *factor of safety* of 3.0), but excludes:

CD-B1

- (a) Potentially compressible ground such as topsoil, soft soils such as clay which can be moulded easily in the fingers, and uncompacted loose gravel which contains obvious voids,
- (b) Expansive soils being those that have a liquid limit of more than 50% when tested in accordance with NZS 4402 Test 2.2, and a linear shrinkage of more than 15% when tested, from the liquid limit, in accordance with NZS 4402 Test 2.6, and
- (c) Any ground which could forseeably experience movement of 25 mm or greater for any reason including one or a combination of: land instability, ground creep, subsidence, seasonal swelling and shrinking, frost heave, changing ground water level, erosion, dissolution of soil in water, and effects of tree roots.

COMMENT:

Soils (excepting those described in (a), (b) and (c) above) tested with a dynamic cone penetrometer in accordance with NZS 4402 Test 6.5.2, shall be acceptable as *good ground* for *building* foundations if penetration resistance is no less than:

- (a) 3 blows per 75 mm at depths no greater than the footing width.
- (b) 2 blows per 75 mm at depths greater than the footing width.

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

CD-G13, CD-G14

Group sleeping area A *firecell* containing communal sleeping accommodation for a specified number of people who may or may not be known to one another. Partial subdivision within the *firecell* is permitted with specific limitation including that no *occupied space* is fully enclosed and all *occupied spaces* are open and available to all occupants at any time. A *group sleeping area firecell* 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.

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

CD-C

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*.

CD-G13



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.

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/FSA/ HSNOA

Section 2 of the Fire Service Act 1975 states:

"Hazardous substance" means

- (a) Any hazardous substance as defined in section 2 of the Hazardous Substances and New Organisms Act 1996; and
- (b) Any infectious or radioactive substance that may impair human, animal, or plant" health:

Section 2 of the Hazardous Substances and New Organisms Act 1996 states:

"Hazardous substance" means, unless expressly provided otherwise by regulations, any substance—

- (a) With one or more of the following intrinsic properties:
 - (i) Explosiveness:
 - (ii) Flammability:
 - (iii) A capacity to oxidise
 - (iv) Corrosiveness:
 - (v) Toxicity (including chronic toxicity
 - (vi) Ecotoxicity, with or without bioaccumulation; or
- (b) Which on contact with air or water (other than air or water where the temperature or pressure has been artificially increased or decreased) generates a substance with any one or more of the properties specified in paragraph (a) of this definition."

Hearth The insulating floor under the *fire* and in front and at the sides of the *fireplace*.

CD-B1, CD-C

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

CD-E2

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*.

CD-E2

. -

COMMENT:

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



Definition	Source
Hoarding A structure alongside a public way providing side protection but no overhead protection.	CD-F5
Hold-open device A device which holds a <i>smoke control door</i> or <i>fire door</i> open during normal use, but is released by deactivating the device by an automatic <i>fire</i> detection system, allowing the door to close automatically under the action of a self-closing device.	CD-C, CD-F7, CD-F8
Hook An open fold applied to the edge of a metal <i>flashing</i> .	CD-E2
COMMENT: A <i>hook</i> is distinct from a <i>hem</i> , as it is open at an acute angle rather than flattened.	
Household unit	BA04
(a) means a <i>building</i> or group of <i>buildings</i> , or part of a <i>building</i> or group of <i>buildings</i> , 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.	
HVAC An abbreviation for heating, ventilating and airconditioning.	CD-C, CD-F7
T.	
Illuminance The luminous flux falling onto a unit area of surface.	Code
Impact insulation class (IIC) A single number rating derived from measured values of normalized impact sound pressure levels in accordance with Method ASTM E 492, Annex A1, Laboratory Measurement of Impact Sound Transmission Through Floor-Ceiling Assemblies Using the Tapping Machine. It provides an estimate of the impact sound insulating performance of a floor-ceiling assembly.	Code
Impervious That which does not allow the passage of moisture.	Code
Independent qualified person (IQP) means a <i>person</i> accepted by a <i>territorial authority</i> in accordance with section 438 of the <i>Building Act 2004</i> as being qualified to carry out the inspection, maintenance, and reporting procedures required for a <i>specified system</i> stated in a <i>compliance schedule</i> .	НВ
Inspection chamber A chamber with working space at ground level through which the <i>drain</i> passes either as an open channel or as a pipe incorporating an <i>inspection point</i> .	CD-E1, CD-G13
Inspection point A removable cap at <i>drain</i> level through which access may be made for cleaning and inspecting the drainage system.	CD-E1, CD-G13
Insulating material A material that has a thermal conductivity of less than 0.07 W/mK.	CD-C, CD-E3



Definition Source **Insulation** In the context of *fire* protection, the time in minutes for which Code 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. **Integrity** In the context of *fire* protection, the time in minutes for which a Code prototype specimen of a fire separation, when subjected to the standard test for fire resistance, has prevented the passage of flame or hot gases. **COMMENT:** The precise meaning of integrity depends on the type of building elements being treated and how it is defined in the standard test being used. Intended use in relation to a building,— **BA04** (a) includes any or all of the following: (i) any reasonably foreseeable occasional use that is not incompatible with the intended use: (ii) normal maintenance: (iii) activities undertaken in response to fire or any other reasonably foreseeable emergency; but (b) does not include any other maintenance and repairs or rebuilding. CD-G14 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. Intermediate floor Any upper floor within a firecell and which is not fire CD-C separated from the floor below. Upper floors within household units need not meet the specific fire safety requirements which apply to intermediate floors in all other situations. COMMENT: 1. An intermediate floor may be open to the firecell or enclosed with non-fire rated construction. If enclosed with fire rated walls another firecell is created. 2. Household units occur only in purpose groups SR and SH. Life safety provisions are governed by the limitations in permitted open path lengths.

K

Kerb ramp means a short ramp either cutting through a kerb or built up to CD-D1 the kerb.

Kick-out A single fold applied to the edge of a horizontal metal *flashing* to CD-E2 deflect moisture away from the cladding system below. Refer also Bird's beak.

COMMENT:

A kick-out is used at the bottom of a capping or other flashing to deflect water away from the cladding below.



Definition	Source
L	
Licensee A <i>person</i> holding a licence issued under the Radiation Protection Act 1965 and for the time being in force.	CD-F8
Licensed building practitioner means a building practitioner whose name is, for the time being, entered in the register established and maintained under section 298(1) of the <i>Building Act 2004</i> .	BA04
Limited area atrium A single <i>firecell</i> in which individual <i>occupied spaces</i> at different levels open onto a common enclosed space. Limitations are placed on the number of <i>intermediate floors</i> (no more than two levels), individual floor areas and permitted <i>occupant load</i> , depending on the provisions for smoke detection, smoke control and the <i>means of escape from fire</i> .	CD-C
COMMENT: Typical <i>limited area atrium buildings</i> are small shopping malls, and motel complexes with a central atrium feature open to a number of floors.	
Lining The rigid sheet covering for a wall, ceiling or other interior surface.	CD-E2
Lock-out The safety shut down condition of the control system such that re-start cannot be accomplished without manual resetting.	CD-C, CD-G11
M	
Main private stairway A <i>private stairway</i> intended to provide access to and between frequently used spaces such as living areas, kitchens and garages, and includes all exterior <i>private stairways</i> .	CD-D1
Masonry tiles Clay or concrete tile roof <i>cladding</i> .	CD-E2
Masonry veneer Clay or concrete block veneer cladding.	CD-E2
Means of escape from fire, in relation to a building that has a floor area,—	BA04
(a) means continuous unobstructed routes of travel from any part of the floor area of that <i>building</i> to a place of safety, and	
(b)includes all active and passive protection features required to warn people of <i>fire</i> and to assist in protecting people from the effects of <i>fire</i> in the course of their escape from the <i>fire</i> .	
Membrane A non-metallic material, usually synthetic, used as a fully supported roof <i>cladding</i> , <i>deck</i> surface or, in conjunction with other <i>claddings</i> , as gutters or <i>flashings</i> .	CD-E2
Minister means the Minister of the Crown who, under the authority of a warrant or with the authority of the Prime Minister, is responsible for the administration of the <i>Building Act 2004</i> .	BA04
Minor private stairway A <i>private stairway</i> not on a main thoroughfare, and intended to provide infrequent access to a single room which is not a living area or kitchen.	CD-D1



Definition	Source
Multi-unit dwelling Applies to a <i>building</i> or use which contains more than one separate household or family.	CD-C
COMMENT: For fire safety purposes each household unit is a separate firecell.	
N	
Natural draught The flow produced by the tendency of warmed gases to rise.	CD-G4
Natural hazard has the meaning given to it by section 71 of the Building Act 2004.	BA04
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."	
Network utility operator means a person who—	BA04
(a) undertakes or proposes to undertake the distribution or transmission by pipeline of natural or manufactured gas, petroleum, 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 Radiocommunication. Act 1989; or	S
(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	
Nominal pile width The least width of a pile in side view and is equal to the diameter in round piles.	CD-B1
Non-combustible Materials shall be classified as <i>non-combustible</i> or <i>combustible</i> when tested to: AS 1530 – Part 1.	CD-B1, CD-C
Non-return valve A valve that permits flow in one direction but prevents a return flow and is part of a hot or cold water system.	CD-G12
Nosing The rounded projecting edge of a stair tread.	CD-D1, CD-F4



Definition	Source
Notice to fix has the meaning given to it by section 164(2) of the <i>Building</i> Act 2004.	BA04
Section 164(2) states: "(2) A responsible authority must issue to the specified person concerned a notice (a notice to fix) requiring the person— (a) to remedy the contravention of, or to comply with, this Act or the regulations; or (b) to correct the warrant of fitness; or (c) to properly comply with the inspection, maintenance, or reporting procedures stated in the compliance schedule."	
Notional boundary The <i>boundary</i> which for <i>fire</i> safety purposes, is assumed to exist between two <i>buildings</i> on the same property under a single land title.	CD-C
COMMENT: A notional boundary may be located anywhere between the two buildings, and once chosen determines the unprotected area permitted in each building. Locating it closer to one building than the other, may be an advantage where it is planned for a rear wall without windows to face the front wall of the other building requiring windows.	
NUO system means a system owned or controlled by a <i>network utility operator</i> .	BA04
0	
Occupant load The greatest number of people likely to occupy a particular space within a <i>building</i> . It is determined by:	CD-C, CD-F6, CD-F7
(a) Multiplying the number of people per m² (occupant density) for the activity being undertaken, by the total floor area, or	
(b) For sleeping areas, counting the number of beds, or	
(c) For fixed seating areas, counting the number of seats.	
Occupied space Any space within a <i>building</i> in which a <i>person</i> will be present from time to time during the <i>intended use</i> of the <i>building</i> .	Code
Open path That part of an <i>escape route</i> (including <i>dead ends</i>) not protected by <i>fire</i> or <i>smoke separations</i> , and which terminates at a <i>final exit</i> or <i>exitway</i> .	Code
Open space includes land on which there is and will be no <i>buildings</i> and which has no roof over any part of it other than overhanging eaves.	CD-C
Open vented storage water heater A <i>water heater</i> incorporating a <i>vent pipe</i> which is permanently open to the atmosphere.	CD-G12
Other property—	BA04
(a) means any land or 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	



Definition	Source
Outdoor air Air as typically comprising by volume:	Code
(i) oxygen 20.94%	
(ii) carbon dioxide 0.03%	
(iii) nitrogen and other inert gases 79.03%.	
Outfall That part of the disposal system receiving <i>surface water</i> or <i>foul water</i> from the drainage system. For <i>foul water</i> , the <i>outfall</i> may include a <i>sewer</i> or a septic tank. For <i>surface water</i> , the <i>outfall</i> may include a natural water course, kerb and channel, or soakage system.	Code
Over-pressure protection Devices preventing the pressure in piping or appliances from exceeding a predetermined value.	CD-G11
Owner, in relation to land and any buildings on the land,—	BA04
(a) means the <i>person</i> who—	
(i) is entitled to the rack rent from the land; or	
(ii) would be so entitled if the land were let to a tenant at a rack rent; and	
(b)includes—	
(i) the owner of the fee simple of the land; and	
(ii) any <i>person</i> who has agreed in writing, whether conditionally or unconditionally, to purchase the land or any leasehold estate or interest in the land or to take a lease of the land and who is bound by the agreement because the agreement is still in force.	
P	
Parallel flashing A roof <i>flashing</i> that runs along the roof slope, parallel to the roof <i>cladding</i> profile. Also known as a longitudinal <i>flashing</i> .	CD-E2
Parapet A timber-framed wall that extends above the level of the roof <i>cladding</i> .	CD-E2
Penetration A pipe, cable or duct passing through an opening in a <i>fire separation</i> .	CD-C
Penstocks are conduits to control the flow of water in water supply, hydroelectric power and sewerage systems. Penstocks are normally equipped with a gate system and surge tank.	DG
People with disabilities People whose ability to use <i>buildings</i> is affected by mental, physical, hearing or sight impairment.	Code
Performance criteria in relation to a <i>building</i> , means those qualitative or quantitative criteria that the <i>building</i> is required to satisfy in performing its <i>functional requirement</i> .	BA04
Person includes the Crown, a corporation sole, and also a body of persons,	BA04

whether corporate or unincorporated.



Definition	Source
Person with a disability means a <i>person</i> who has an impairment or a combination of impairments that limits the extent to which the <i>person</i> can engage in the activities, pursuits, and processes of everyday life, including, without limitation, any of the following:	BA04
(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.	CD-G14
Pitch line The line joining the leading edge or <i>nosings</i> (if any) of successive stair treads within a single flight of <i>stairs</i> .	CD-F4 (Sep 07)
Plans and specifications—	BA04
(a) means the drawings, specifications, and other documents according to which a <i>building</i> is proposed to be <i>constructed</i> , <i>altered</i> , demolished, or removed; and	
(b) includes the proposed procedures for inspection during the <i>construction</i> , <i>alteration</i> , demolition, or removal of a <i>building</i> ; and	
(c) in the case of the construction or alteration of a building, also includes—	
(i) the intended use of the building; and	
(ii) the <i>specified systems</i> that the applicant for <i>building consent</i> considers will be required to be included in a <i>compliance schedule</i> required under section 100; and	
(iii) the proposed procedures for inspection and routine maintenance for the purposes of the <i>compliance schedule</i> for those <i>specified systems</i> .	
Plumbing system Pipes, joints and fittings laid above ground and used for the conveyance of <i>foul water</i> to the <i>foul water drain</i> , and includes <i>vent pipes</i> .	Code
Potable (and potable water) Water that is suitable for human consumption.	CD-G12
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.	DG
Prescribed electrical work has the meaning given to it by section 2(1) of the Electricity Act 1992.	BA04, EA
Primary element A <i>building element</i> providing the basic load bearing capacity to the structure, and which if affected by <i>fire</i> may initiate instability or premature structural collapse.	CD-B2, CD-C
COMMENT: Supposed floors in multi-storay buildings are primary elements	

Suspended floors in multi-storey buildings are primary elements.



Definition	Source
Principal user A member of the primary group for which a <i>building</i> was constructed, and therefore explicitly excludes <i>persons</i> or groups of <i>persons</i> providing care or control of that <i>principal user</i> group.	Code
Privacy The situation of being withdrawn from view.	CD-G1
Private stairway A <i>stairway</i> used, or intended to be used, by the occupants of a single <i>household unit</i> .	CD-D1
Privy A private room containing a receptacle (other than a WC) or an excavation for excreted liquid or solid human waste, and with a means of disposal or containment of the waste.	CD-G1
Producer statements are formal statements supplied by or on behalf of	НВ
(i) an applicant for a building consent, or	
(ii) by or on behalf of a person who has carried out building work.	
that can be accepted by a <i>building consent authority</i> as verification that certain work will be or has been carried out in accordance with nominated performance requirements of the <i>Building Code</i> .	
COMMENT:	
Although no longer expressly referred to in the <i>Building Act 2004</i> , these could be accepted and considered as part of the plans or specifications.	
Product certificate means a certificate issued under section 269 of the <i>Building Act 2004</i> that a <i>building consent authority</i> must accept as establishing compliance with the <i>Building Code</i> .	НВ
Product certification accreditation body means the <i>person</i> referred to in section 261(2) of the <i>Building Act 2004</i> .	BA04
Property includes land, <i>buildings</i> , and goods; but does not include incorporeal forms of <i>property</i> .	BA04
Protected path That portion of an <i>exitway</i> within a <i>firecell</i> which is protected from the effects of smoke by <i>smoke separations</i> .	Code
Protected shaft A space, other than a <i>safe path</i> , enclosed by <i>fire separations</i> or <i>external walls</i> used to house <i>building</i> services, lifts, or conveyors which pass from one <i>firecell</i> to another.	CD-C
Purlin A horizontal member laid to span across <i>rafters</i> or trusses, and to which the roof <i>cladding</i> is attached.	CD-E2
Purpose group The classification of spaces within a <i>building</i> according to the activity for which the spaces are used.	Code



Definition Source R

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

CD-E3, CD-G5, CD-H1

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

CD-E2

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

CD-C, RA

The definition of 'Railway line' in the Transport Services Licensing Act 1989 has been repealed by the Railways Act 2005. Section 4 of the Railways Act 2005 now contains the definition for "railway line".

Section 4 states

"railway line" —

- (a) means a single rail or set of rails, having a gauge of 550 mm or greater between them, laid for the purposes of transporting people or goods by rail; and
- (b) includes—
 - (i) sleepers, associated formation and ballast, tunnels, and bridges; and
 - (ii) in relation to a single rail or set of rails that are laid on a road for the purposes of 1 or more light rail vehicles,—
 - (A) any area between the rails; and
 - (B) the area that extends 500 mm outside the extremity of any light rail vehicle being used on that single rail or set of rails; and
 - (iii) a set of rails, having a gauge of less than 550 mm between them, that is designated as a railway line in regulations made under section 59(I); 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".

Reflectance The ratio of the flux reflected from a surface to the flux incident CD-G7, CD-G8 on it.

Regional authority means— **BA04**

(a) a regional council; or

(b) a unitary authority



Definition	Source
Regional council has the meaning given to it by section 5(1) of the Local Government Act 2002.	BA04
Registrar has the meaning given to it by section 282 of the Building Act 2004.	BA04
Regulations means regulations in force under the Building Act 2004.	BA04
Regulator A device which automatically regulates the pressure or volume of gas passing through it to a predetermined level.	CD-G10, CD-G11
Relevant boundary means the <i>boundary</i> of an <i>allotment</i> which is <i>other property</i> in relation to the <i>building</i> concerned and from which is measured the separation between the <i>building</i> and that <i>other property</i> . For the <i>external wall</i> of any <i>building</i> , the <i>relevant boundary</i> shall be the nearest of the following <i>boundaries</i> :	CD-C
(a) A boundary of a freehold allotment, except that where 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.	
(b) A boundary of a cross-lease or of a company lease or licence, except that where the other property is open space to which the lessee or licensee of the)

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

building concerned has an exclusive right of access and occupation or to which two or more occupiers have rights of access and occupation the *relevant*

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.

boundary is the boundary on the far side of that other property.

- 2. Boundaries within a cross-lease or company lease or licence are shown on a survey plan. In some cases the boundary is the external wall or roof of a building.
- 3. The unit title *boundaries* of principal units, accessory units, and common property are shown in the unit plan. A *boundary* is frequently an internal or *external wall*, an upper floor, or the roof of a *building*.
- 4. A wall along a boundary between two allotments is called a "party wall" when the owners of the allotments each have legal rights in respect of that wall registered by way of easements on one or both titles. An internal wall between cross-leases, company leases, or unit titles, or between one of them and common property, is not generally called a party wall but in that case also the lessees, unit title holders, or corporate body concerned each have legal rights in respect of that wall. Such a wall separates areas which are other property in relation to each other, but the wall itself is part of each property. The fire protection consequence of that legal concept is that such a wall can be regarded as a fire separation providing protection against horizontal fire spread in each direction. In other words, that wall may provide the appropriate FRR instead of each property having its own wall of that FRR.

Relief vent A *vent pipe* which is connected to a *discharge stack* below the lowest branch connection and which connects at its upper end to the *discharge stack vent* or terminates as an open vent.

CD-G13



Definition	Source
Reservoir Body of water impounded by one or more <i>dams</i> or dikes, inclusive of its shores and banks and of any facility or installation necessary for its operation.	DG
Reservoir capacity Total or gross storage capacity of the <i>reservoir</i> at full supply level.	DG
Risk matrix A table that allows the calculation of a <i>risk score</i> by the allocation and summing of scores for a range of design and location factors applying to a specific <i>building</i> design.	CD-E2
Risk score An aggregated numerical score for a proposed <i>building</i> as defined by E2/AS1. The <i>risk score</i> is determined by completion of the <i>risk matrix</i> .	CD-E2
Road has the meaning ascribed to it by section 315 of the Local Government Act 1974 and includes a public place and also includes a motorway.	CD-C/LGA
Rodding point A removable cap at ground level through which access may be made for cleaning and inspecting the drainage system.	CD-E1, CD-G13
Roof underlay An absorbent permeable building paper that absorbs or collects condensation or water that may penetrate the roof <i>cladding</i> or metal wall <i>cladding</i> .	CD-E2
Room-sealed appliance An appliance designed so that air for combustion neither enters from, nor combustion products enter into, the room in which the appliance is located.	CD-G4
S	
Saddle flashing A <i>flashing</i> used to weatherproof the junction between a horizontal and vertical surface.	CD-E2
Safe path That part of an <i>exitway</i> which is protected from the effects of <i>fire</i> by <i>fire separations</i> , <i>external walls</i> , or by distance when exposed to open air.	Code
Safe place A place of safety in the vicinity of a <i>building</i> , from which people may safely disperse after escaping the effects of a <i>fire</i> . It may be a place such as a street, <i>open space</i> , public space or an <i>adjacent building</i> .	Code
Safety colour (green, red or yellow) A colour of specified properties to which a safety meaning is attributed.	CD-F8
Safety glass means a glass so treated or combined with other materials as to reduce the likelihood of injury to <i>persons</i> when it is cracked or broken.	CD-F2
Safety shut-off system An arrangement of valves and associated control systems which shuts off the supply of gas when required by a device which senses an unsafe condition.	CD-G10
Safety sign A particular type of sign which comprises a geometric form and a <i>safety colour</i> , together with a <i>safety symbol</i> or text (that is, words, letters, numbers or a combination of these) and gives a particular safety message.	CD-F8
Safety symbol means a graphic symbol used in a safety sign.	CD-F8



Definition	Source
Sanitary appliance An appliance which is intended to be used for <i>sanitation</i> , but which is not a <i>sanitary fixture</i> . Included are machines for washing dishes and clothes.	Code
Sanitary fixture Any fixture which is intended to be used for sanitation.	Code
Sanitation The term used to describe the activities of washing and/or excretion carried out in a manner or condition such that the effect on health is minimised, with regard to dirt and infection.	Code
Scaffolding used in the course of the <i>construction</i> process, means any structure framework, swinging stage, suspended <i>scaffolding</i> , or boatswain's chair, that is of a temporary nature and that is used or intended to be used for: the support or protection of workers engaged in, or in connection with <i>construction</i> work for the purpose of carrying out that work, or the support of materials used in connection with the work; and includes any plank, coupling, fastening, fitting, or device used in connection with the <i>construction</i> , erection, or use of <i>scaffolding</i> .	e, BA04
Scupper An opening in a <i>parapet</i> or <i>enclosed balustrade</i> to allow water to drain into a rainwater head.	CD-E2
Secondary element A <i>building element</i> not providing load bearing capacity to the structure and if affected by <i>fire</i> , instability or collapse of the <i>building</i> structure will not occur.	CD-B2, CD-C
Secondary flow path The path over which <i>surface water</i> will follow if the drainage system becomes overloaded or inoperative.	CD-E1
Secondary private stairway A <i>private stairway</i> other than a <i>main</i> or <i>minor private stairway</i> , intended to provide access to another floor containing only bedrooms, bathroom or similar accommodation.	CD-D1
Service ramp means a ramp that is used, or intended to be used, infrequently by service personnel to gain access to spaces for the purposes of maintenance and the movement of goods.	CD-D1
Service stairway means a <i>stairway</i> that is used, or intended to be used, infrequently by service personnel to gain access to spaces for the purposes of maintenance and the movement of goods.	CD-D1
Sewer A <i>drain</i> that is under the control of, or maintained by, a <i>network utility operator</i> .	Code
Sitework means work on a <i>building</i> site, including earthworks, preparatory to, or associated with the <i>construction</i> , <i>alteration</i> , demolition, or removal of a <i>building</i> .	BA04
Smokecell A space within a <i>building</i> which is enclosed by an envelope of <i>smoke separations</i> , or <i>external walls</i> , roofs, and floors.	CD-C



Definition	Source
Smoke control door A <i>doorset</i> with closefitting single or multi-leaves which are impermeable to the passage of smoke, fitted with smoke seals and installed within a <i>smoke separation</i> . The door, in the event of smoke, if not already closed, will close automatically and be held closed.	CD-C
COMMENT:1. A <i>smoke control door</i> may be held closed by use of a door closer. The door need not be latched.	
Requirements for smoke control doors are given in C/AS1 Paragraph 6.19.1 and 6.19.8, and Appendix C Paragraph C8.1.	
Smoke developed index (SDI) That index number for smoke developed when determined according to the <i>standard test</i> method for measuring the properties of lining materials.	CD-C
Smoke separation Any vertical, horizontal or inclined <i>building element</i> with <i>known smoke-stopping</i> or <i>smoke-leakage characteristics</i> .	Code
Socket outlet An accessory fixed to a wall or ceiling and designed to accept a plug that extends the electrical supply to an appliance by means of a flexible cable.	CD-G2
Soft edge A compatible soft edging seamed onto <i>flashings</i> to provide closure to profiled <i>cladding</i> .	CD-E2
Soil fixture A <i>sanitary fixture</i> 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.	
Sound transmission class (STC) A single number rating derived from measured values of transmission loss in accordance with classification ASTM E 413, Determination of Sound Transmission Class. It provides an estimate of the performance of a partition in certain common sound insulation situations.	Code
Specific design Design and detailing of a proposed <i>building</i> or parts of a <i>building</i> , demonstrating compliance with the <i>Building Code</i> , that shall be provided to the <i>building consent authority</i> for assessment and approval as part of the <i>building consent</i> process. <i>Buildings</i> , or parts of <i>buildings</i> , requiring <i>specific design</i> are beyond the scope of E2/AS1.	CD-E2
Specified intended life has the meaning given to it by section 113(3) of the Building Act 2004.	BA04
Section 113(3) states:	
"(3) In subsection (2), specified intended life , in relation to a building, means the period of time, as stated in an application for a building consent or in the consent itself, for which the building is proposed to be used for	

its intended use."



Definition	Source
Specified system—	BA04
(a) means a system or feature that—	
(i) is contained in a <i>building</i> ; and	
(ii) contributes to the proper functioning of the <i>building</i> (for example, an automatic sprinkler system);	
And	
(iii) is declared by the Governor-General, by Order in Council, to be a <i>specified</i> system for the purposes of this Act; and	
(b)includes a cable car.	
Spread of flame index (SFI) That index number for spread of flame which is determined according to the <i>standard test</i> method for measuring the properties of lining materials.	CD-C
Spillway Weir, channel, conduit, tunnel, gate or other structure designed to permit discharges from the reservoir.	DG
Stability In the context of <i>fire</i> protection, the time in minutes for which a prototype specimen of a <i>primary element</i> , when subject to the <i>standard test</i> for <i>fire</i> resistance, has continued to carry its <i>fire</i> design load without failure.	Code
COMMENT: The fire design load should be as specified in the limit state loadings code NZS 4203.	
Stairway A series of steps or stairs with or without landings, including all necessary <i>handrails</i> and giving access between two different levels.	CD-C, CD-D1
Stanchion A connecting device, fixed into the structure of a <i>building</i> , that provides support for <i>handrails</i> , aerials and similar structures.	CD-E2
Standards means specifications for <i>building</i> materials, methods, processes or practices that provide a basis for determining consistent and acceptable minimum levels of quality, performance, safety and reliability.	НВ
COMMENT: Standards are developed by organisations that are recognised by the Government. In New Zealand, standards are developed by a trading arm of the Standards Council, a crown entity operating under the Standards Act 1988. In Australia, standards are developed by Standards Australia, which is recognised through a memorandum of understanding with the Commonwealth Government.	
Standard test A test method which is recognised as being appropriate for the <i>fire</i> protection properties being assessed.	CD-C
COMMENT: A list of standard test methods is given in Appendix C of C/AS1.	
Standard year For the purposes of determining natural lighting, the hours between 8 am and 5 pm each day with an allowance being made for daylight saving.	Code
Statutory authority means an authority or organisation that has the statutory power to classify or register land or <i>buildings</i> for any purpose.	BA04



Definition	Source
Stopend A turn-up at the upper edge of profiled metal <i>cladding</i> , or at the end of gutters and some types of <i>flashings</i> .	CD-E2
COMMENT: A <i>stopend</i> assists the control of moisture by ensuring any moisture reaching the edge of the roofing is deflected from further entry.	
Storage water heater A <i>water tank</i> with an integral <i>water heater</i> for the storage of hot water.	CD-G12
Storey That portion of a <i>building</i> included between the upper surface of any floor and the upper surface of the floor immediately above, except the top <i>storey</i> shall be that portion of a <i>building</i> included between the upper surface of the topmost floor and the ceiling or roof above.	CD-E2
Strength reduction factor The factor by which the ultimate strength is multiplied to obtain the design strength.	CD-B1
COMMENT: NZS 4203: 1992 uses the terms ideal strength in place of ultimate strength, and dependable strength in place of design strength.	
Structural fire endurance rating (S) The <i>fire resistance rating (FRR)</i> intended to prevent <i>fire</i> spread or structural collapse for the complete burnout of the <i>firecell</i>	CD-C
Stucco A wall <i>cladding system</i> formed from reinforced solid plaster over a rigid or non-rigid backing.	CD-E2
Stud A vertical framing timber.	CD-E2
Suite A <i>firecell</i> providing residential accommodation for the exclusive use of one <i>person</i> or of several people known to one another. It comprises one or more rooms for sleeping and may include spaces used for associated domestic activities such as hygiene and cooking.	CD-C, CD-F7
COMMENT:	
 Bed numbers are limited to 6 in purpose groups SC and SD or 12 in purpose group SA in accordance with C/AS1 Paragraphs 6.6.5 and 6.7.6. Examples may be found in hotels, motels and residential care facilities, such as old people's homes or in hospices providing temporary family accommodation. 	
2. It is assumed that the social cohesion of the occupants by virtue of the personal relationship (as family members, friends or associates) would ensure that any individual, becoming aware of <i>fire</i> , would naturally assist others within the <i>firecell</i> to escape. The term <i>suite</i> does not apply to a group of bedrooms where each room is available to different "key-holders". In some cases a <i>suite</i> may be a single bedroom.	
Sump A chamber which is installed in the <i>drain</i> and incorporates features to intercept and retain silt, gravel and other debris.	CD-E1
Supervise , in relation to <i>building work</i> , means provide control or direction and oversight of the <i>building work</i> to an extent that is sufficient to ensure that the <i>building work</i> —	BA04
(a) is performed competently; and	

(b) complies with the building consent under which it is carried out.



Definition	Source
Surface finish The combination of a surface coating and substrate material on surfaces of <i>building elements</i> exposed to view. It can be an applied decorative coating or the uncoated <i>building element</i> itself. For interior surfaces the requirements are evaluated in terms of <i>SFI</i> and <i>SDI</i> . For exterior surfaces the requirements are evaluated in terms of rate of heat release as determined by Appendix C, Paragraph C9.1.	CD-C
Surface water All naturally occurring water, other than sub-surface water, which results from rainfall on the site or water flowing onto the site, including that flowing from a <i>drain</i> , stream, river, lake or sea.	Code
Т	
Tailing dam <i>Dam</i> constructed to retain tailings or other waste materials from mining or industrial operations.	DG
Tailpipe A device placed at the low point of a gas piping system to collect condensate, and from which the condensate may be removed.	CD-G10
Territorial authority (TA) means a city council or district council named in Part 2 of Schedule 2 of the Local Government Act 2002; and—	BA04
(a) in relation to land within the district of a <i>territorial authority</i> , or a <i>building</i> on or proposed to be built on any such land, means that <i>territorial authority</i> , and	
(b) in relation to any part of a coastal marine area (within the meaning of the Resource Management Act 1991) that is not within the district of a <i>territorial authority</i> , or a <i>building</i> on or proposed to be built on any such part, means the <i>territorial authority</i> whose district is adjacent to that part.	
Theatre A place of assembly intended for the production and viewing of performing arts, and consisting of an auditorium and stage with provision for raising and suspending stage scenery above and clear of the working area.	CD-C, CD-F4 (Sep 07)
Thermal resistance The resistance to heat flow of a given component of a <i>building element</i> . It is equal to the air temperature difference (°C) needed to produce unit heat flux (W/m²) through unit area (m²) under steady conditions. The units are °Cm²/W.	Code
Threshold A sill to an external door, or the floor under an internal door.	CD-D1
Total thermal resistance The overall air-to-air <i>thermal resistance</i> across all components of a <i>building element</i> such as a wall, roof or floor. (This includes the surface resistances which may vary with environmental changes eg, temperature and humidity, but for most purposes can be regarded as having standard values as given in NZS 4214.)	CD-E3, CD-G5
Town gas A manufactured gas.	CD-G11



Definition	Source
Toxic environment An environment that contains <i>contaminants</i> that can contaminate the water supply in concentrations greater than those included in the New Zealand Drinking Water Standard 1995.	CD-G12
Trade means any trade, business, industry, profession, occupation, activity of commerce, or undertaking relating to—	BA04
(a) the supply or acquisition of goods or services; or	
(b) the acquisition of household units or any interest in land.	
Transverse flashing A roof <i>flashing</i> that runs across the roof slope, at right angles to the roof <i>cladding</i> profile.	CD-E2
Trap A chamber which is installed in the <i>drain</i> and incorporates features to intercept and retain floatable debris.	CD-E1
Trapezoidal A type of profiled metal <i>cladding</i> with symmetrical or asymmetrical crests, with troughs between the crests.	CD-E2
Travel distance The length of the <i>escape route</i> as a whole or the individual lengths of its parts, namely:	Code
(a) Open paths	
(b) Protected paths and	
(c) Safe paths.	
Trough profile A type of profiled metal <i>cladding</i> comprising vertical ribs with flat, or lightly profiled pans between the ribs. Also known as ribbed, secret fixed or tray profile.	CD-E2
U	
Unisex facilities Facilities available for use by either sex.	CD-G1
COMMENT: Unisex facilities may also be described as both gender facilities.	
Unitary authority has the meaning given to it by section 5(1) of the Local Government Act 2002.	BA04/LGA
Section 5(1) states: "unitary authority" means a territorial authority that has the responsibilities, duties, and powers of a regional council conferred on it under— (a) the provisions of any Act; or (b) an Order in Council giving effect to a reorganisation scheme"	
Unprotected area in relation to an external wall of a building means:	Code
(a) Any part of the <i>external wall</i> which has less than the required <i>FRR</i> . For example, a non <i>fire</i> rated window, door or other opening or sheet metal.	
(b) Any part of the <i>external wall</i> which has <i>combustible</i> material more than 1.0mm thick attached to or applied to its external face, whether for <i>cladding</i> or any other purpose.	



Definition	Source
V	
Valley gutter A gutter running down the valley formed by the intersection of two pitched roof surfaces.	CD-E2
Valve vented storage water heater (unvented storage water heater) A storage water heater in which the required venting to the atmosphere is controlled by a valve.	CD-G12
Vapour barrier Sheet material or coating having a low water-vapour transmission, and used to minimise water-vapour penetration in <i>buildings</i> . (<i>Vapour barriers</i> are sometimes referred to as <i>damp-proof membranes</i> .)	CD-B2
Vent line A pipe or tube which conveys gas to a safe place outside the <i>building</i> from a gas pressure <i>regulator</i> relief valve.	CD-G10
Vent pipe A pipe for the purpose of protecting <i>water seals</i> that at its upper end is either open to the atmosphere or fitted with an <i>air admittance</i> valve and that at its lower end is connected to a <i>discharge pipe</i> .	CD-G13
Verification Method means a method by which compliance with the <i>Building Code</i> may be verified.	BA04
W	
Warm location means a location in New Zealand where the <i>degree-day total</i> is less than 920.	Code
Waste pipe A <i>discharge pipe</i> that conveys the discharge from <i>waste water fixtures</i> to a <i>gully trap</i> .	CD-G13
Waste water fixture A <i>sanitary fixture</i> or <i>sanitary appliance</i> used to receive wastes, and which is not a <i>soil fixture</i> .	CD-G13
Water heater A device for heating water.	CD-B2, CD-G12
Water main A water supply pipe that is under the control, or maintained by a <i>network utility operator</i> .	Code
Waterproof and waterproofing The complete and total resistance of a <i>building element</i> to the ingress of any moisture.	CD-E2
Water seal The depth of water that can be retained in a water trap.	CD-G2, CD-G13
Water supply system Pipes, fittings and tanks used or intended to be used for the storage and reticulation of water from a <i>water main</i> or other water source to <i>sanitary fixtures, sanitary appliances</i> and fittings within a <i>building</i> .	Code
Water tank (vessel) A covered fixed container for storing hot or cold water.	CD-G12
Water trap A fitting designed to retain a depth of water that prevents foul air and gases escaping from the <i>plumbing system</i> or <i>foul water drainage system</i> and entering a <i>building</i> .	CD-G2, CD-G13



Definition Source

Weathertightness and weathertight Terms used to describe the resistance of a *building* to the weather. *Weathertightness* is a state where water is prevented from entering and accumulating behind the *cladding* in amounts that can cause undue dampness or damage to the *building elements*.

CD-E2

COMMENT:

The term *weathertightness* is not necessarily the same as *waterproof*. However, a *weathertight building*, even under severe weather conditions, is expected to limit moisture ingress to inconsequential amounts, insufficient to cause undue dampness inside *buildings* and damage to *building elements*. Moisture that may occasionally enter is able to harmlessly escape or evaporate.

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.

CD-E2

CD-C, CD-H1

CD-E2

COMMENT:

Maximum ultimate limit state speeds are:

Low wind zone = wind speed of 32 m/s

Medium wind zone = wind speed of 37 m/s

High wind zone = wind speed of 44 m/s

Very high wind zone = wind speed of 50 m/s.

Specific design is required for wind speeds greater than 50 m/s.

Working day means any day except—

BA04

- (a) Saturday, Sunday, Good Friday, Easter Monday, Anzac Day, the Sovereign's Birthday, Labour Day, and Waitangi Day; and
- (b) the day observed in the appropriate area as the anniversary of the province of which the area forms a part; and
- (c) a day in the period beginning on 20 December in any year and ending with the close of 10 January in the following year.



Index

(Revised by Amendment 6)

This is a complete index for the New Zealand Building Code and Compliance Documents.

Α

Access see Access Routes, and Mechanical Inst	allations for Access
Access chambers see Maintenance access to drains	
Access points see Maintenance access to drains	
lobbies	
clearances, Level access routes, Mech a disability, Ramps, Stairs, Obstruction access to buildings	1.5.4, 1.5.5, 1.6.1, 1.7.1, 1.8.1, 2.0, 5.1.3, Figure 27 ace, Doors, Escape routes, Handrails, Height anical Installations for Access, a Person with
Access to facilities	.NZBC/D1.3.3 (c), G1.3.5; G3/AS1 Figure 1
dining areas facilities kitchens laundry sitting areas	D1/AS1 9.0, 9.1, 9.1.1, 9.2.1, Table 9 D1/AS1 9.2.1 c) D1/AS1 9.2.1 c) D1/AS1 9.2.1 b); G3/AS1 1.5.2, Figure 1 G2/AS1 1.2, Figure 2 D1/AS1 9.2.1 c) D1/AS1 9.2.1 a)
Accessible routes NZBC/D1 .3.3, access to performance areas	D1.3.4; D1/AS1 1.1.1 to 1.1.3, 1.5.5 b), 2.1.1, 2.2.1, 7.0.1, 7.0.6, 11.0.1, Figure 27 D1/AS1 8.2
Accessible units	
Activity spaceNZBC/D1.3.2	(a), D1.3.4 (b), G5.1 (b), G5.2.1 (b), G5.3.3
Aged, homes for see Old people's homes Air see also Ventilation	N7DC/H4 24 /b), H4/AC4 0 0
changesducts	NZBC/H1.3.1 (b); H1/AS1 3.0 G4/VM1 1.0.1



Air-handling systems	G4/AS1 1.3.1 b)
Airborne and Impact Sound	NZBC/G6.3.2 NZBC/G6.1, G6.2 G6/VM1 2.0
Alerting devices audible visual	F7/AS1 1.2.8, 2.1.2 c) f)
Alternative solutions	
accessible routes bedding and backfilling drains gas fuel appliances laundry tubs open vented storage water heaters solid waste storage	E1/AS1 3.9.8 G4/AS1 3.0 G2/AS1 1.0.3 G12/AS1 6.9.1
storage water heaters seismic restraint thermal resistance unvented (valve vented) storage water heaters watertightness testing	E3/AS1 1.1.5 (Comment) G12/AS1 6.10.1, Figure 14
Ancillary Buildings	NZBC/A1 8.0, D1.2.1, D1.3.2 (h), D1.3.3, G1.3.5, G8.2, G12.3.0
Apartments see Housing , multi-unit dwellings	
Appliances see Sanitary appliances	
Aprons	C/AS1 7.9.12, 7.9.13, Figure 7.2
Artificial Light	
Asbestos see Hazardous Building Materials	
Assembly care buildings see Communal non-residential buildings	
Assembly service buildings see Communal non-residential buildings	
Automatic extinguishers	G11/AS1 6.0



В

	1 2 1 1 7 2 1 5 7 7 2 7 Figures 2 12 and 2 22
), 3.14.7, 3.15.7,7.8.7, Figures 3.18 and 3.22
Banks	NZBC/D1.3.4 (c) (iv)
see also Commercial buildings	
Barges E2/AS1	4.6.1.5, 9.6.8.2, 9.6.9.4, Figures 92 and 97
see also Gutters, barges and fascias	
BarriersNZBC/F4.3.1,	F4.3.4, F4.3.5, F5.3.2, F5.3.4; D1/AS1 1.7; F4/AS1 1.0; F5/AS1 1.0
see also Access Routes, Handrails, Safety f	rom Falling,
Timber barriers	P. (100.00)
accessible route	-
balconies with fixed seating	=
construction	
fences	
	F5/AS1 1.2
for specific hazardsheights	
hoardings	
	F5/AS1 1.1.4
parapet and rail barriers	
safety enclosures for ladders	
scaffolding	
stair barriers	
toeboards	F5/AS1 1.4
types of barriers	F5/AS1 1.0.3
Basements C/AS1 3.3.2 i), 3.7.1, 3.15.2, 4.5. drainage	
_	E2/AS1 12.3.1
damp-proof membrane	
DPM materials	E2/AS1 12.2.2
DPM requirements	E2/AS1 12.2.1
see also Floors, basement floors	
Basins	e 9, Table 1; G13/AS1 3.3.2, 5.5.2, Table 2
Baths	G1/AS1 Table 2; G13/AS1 Table 2
Bedrooms see Habitable spaces	
Bidets	
Boarding Houses see Communal residential buildings	
Boundary see Notional boundary, Relevant boundaries	
Bridges <i>see</i> Ancillary buildings	
Building construction	
non-solid construction	
solid construction	
	H1/VM1 1.0, H1/AS1 2.0



Building elements	.NZBC/B1.2, B1.3.1, B1.3.2, B1.3.3, B2.3, E2.3.2, E2.3.3, E2.3.4, E2.3.5, E2.3.6, E3.2, E3.3.5, F3.3 (f), G3.3.2 (b) (c), G6.2, G9.3.1 (a) (e); B1/VM4 1.0.1; C/AS1 5.1.1, 5.2.1,5.6.1
see also Floors, Ceilings, Roo	rfs groundNZBC/E2.3.3
	C/AS1 5.1.1, 5.3.1, 5.3.2 a), c), 5.6.1 a),
primary elements	5.7.1, 5.7.4, 5.7.7, 5.7.8, 5.9, 6.14.3, 7.1.2 b),
	7.8.10 b), 7.9.4, 7.9.5 a), 7.10.3, 7.10.4, C7.1.1
requiring noise control	
	C/AS1 5.1.1, 5.3.1, 5.3.2 b), 5.6.1 a),
,	5.7.1, 5.7.8, 7.1.2 b), 7.10.3, C7.1.1
unrated primary	
Building height	
Building performance index	
housing	H1/VM1 1.2
Building site	E1/VM1 3.2.2, 4.0.1, 4.1.10, E1/AS1 1.0.1
_	E1/VM1 1.0.3
Buildings	
•	C/AS1 6.20.18
• • •	
	B1/VM4 2.0.3
9	NZBC/B1.3.3 (o)
car parking	C/AS1 6.8.4, 6.10.3 to 6.10.6, 7.8.2, 7.9.16, Figure 6.2
commercial	
,	
•	
dwellings	C/AS1 1.3.5, 1.3.6
	C/AS1 1.3.3
	B1/VM1 8.0, B1/AS1 4.0
9	
	B1/VM1 13.0
grandstands	C/AS1 3.16.7
hospitals	
hotels, motels and accommod	dation
<u> </u>	H1/VM1 1.1, 1.2, H1/AS1 1.0.1, 2.1
	H1/VM1 1.1.1 (Comment)
intended life	III/A31 1.0.2
see Durability	
intended use	
see Intended use	
large buildings	H1/VM1 1.3
masonry buildings	B1/AS3 1.1.1
	NZBC/C4.1.1; C/AS1 6.20.17 to 6.20.19
	E1/AS1 2.0, Figures 1 and 2
•	C/AS1 3.16.5
	e
	C/AS1 2.4
,	F7/AS1 1.1.2 c)
•	



Buildings (continued)

siteworks

see	Stru	cture
-----	------	-------

small buildings	H1/VM1 1.1
taverns	C/AS1 2.2.3
theatres	C/AS1 6.3.1, 6.19.9, Figure 6.13
three-floor buildings	F7/AS1 1.1.2 b)
three storey buildings	
timber framed buildings	B1/AS3 1.1.1
two-floor buildings	F7/AS1 1.1.2 a) b)
wharenui	3.2 h), 3.4.2 e), 6.7.9, H1/VM1 1.1.1 (Comment)



C

Call points	F7/AS1 1.1.4
Camping grounds	2 , G2.3.4; G1/AS1 3.4.2, Tables 1 to 3; G2/AS1 Table 1 wildings
Car parking buildings see Commercial buildings, Vehic	les
Carports see Outbuildings	
Catchment characteristics	E1/VM1 1.0.2 a), 2.0.1, 2.1, 2.3, 4.2.1
•	
Centres for people with disabilities see Communal non-residential b	uildings
Child care centres see Early childhood centres and	Communal non-residential Buildings
Children	NZBC/D1.3.3 (h), F4.3.3, F4.3.4 (f), F4.3.5 (a), F5.2 (d),
Cilidien	F5.3.3, G15.3.2 (g); B1/AS2 1.0.2; D1/AS1 4.1.8 a); F4/AS1 1.2.1, Figures 1-4; F5/AS1 1.0.2
See also Early childhood centres	
	1.2, 8.0, B1/AS3 2.1; C/AS1 9.5, Figure 9.1, 9.2 and 9.3
•	B1/AS3 1.9, 1.9.3, 1.9.6, Table 2
brick chimneys	B1/AS3 1.1.1, 1.1.3 a) b), 1.2.1 a),1.6.2 a),
	1.7.1, 1.7.6, 1.8.1, 1.8.5 a), Figures 2 to 4 and 7, Table 1
9	B1/AS3 1.1.2
chimney bases	B1/AS3 1.1.3 a), 1.6.1, 1.9.4 b)
chimney breasts	B1/AS3 1.5, Table 1
chimney depth	B1/AS3 1.1.3
chimney height	B1/AS3 1.1.2
chimney liners	B1/AS3 1.1.4
chimney lintels	B1/AS3 Table 1
chimney stacks	B1/AS3 1.1.2, 1.6.1
chimney wall thickness	B1/AS3 1.2, 1.2.1
chimney width	B1/AS3 1.1.3
concrete chimneys	
	1.7.1, 1.7.13, 1.8.2, 1.8.5 b), Figures 4 and 5, Table 1
concrete masonry	B1/AS3 1.8.4
floor brackets	
foundations	B1/AS3 1.1.2, 1.1.3 a), 1.3, 1.3.1,
	1.3.2, 1.3.3, 1.7.4, 1.7.5, 1.8.4, Figure 1
foundation slabs	B1/AS3 1.1.2, 1.3.2, 1.7.4, 1.7.5
gathers	B1/AS3 1.6.1, 1.6.2, 1.7.5
hearths	B1/AS3 1.4, 2.2, 2.2.1, 2.2.2, 2.2.3
hearth slabs	B1/AS3 2.2, 2.2.1, 2.2.2, 2.2.3
packers	B1/AS3 1.7.2, 1.7.6 c)
precast pumice concrete chimne	eys
	1.2.1 c), 1.6.2 b), 1.7.1,1.7.13, 1.8.3,
	1.8.5 c), Figures 5 and 7, Table 1
compressive strength	B1/AS3 1.8.3 c)
construction of	B1/AS3 1.8.3
restraint	
roof brackets	B1/AS3 1.7.1, 1.7.3, 1.7.4, Figure 6
	B1/AS3 1.7.5
structural diaphragms	B1/AS3 1.9.5
	B1/AS3 1.7.5, 1.9.4 c)



Churches see Communal non-residential buildings	
Cinemassee also Communal non-residential buildings	NZBC/G5.3.5
Cladding finish colours	E2/AS1 2.4
Classified uses	NZBC/A1
Cleaners' sinks	
Clubrooms see Communal non-residential buildings	
Cold water expansion valves (explosion control val	Figures 8 to 10, Table 6
installationrelief valve drains	
Colleges see Communal non-residential buildings	
Commercial buildings NZBC/A1 5.0, E3.3.1, C	G5.2.1 (c), G5.3.4, G8.2, G9.3.4,H1.2 (c); G3/AS1 2.0.1; H1/AS1 1.0 NZBC/A1 4.0, E1.3.2, E3.3.1,
assembly care	ZBC/A1 4.0.2, H1.2 (a); H1/AS1 1.0.1, 6.1 NZBC/G5.3.5
Communal residential buildings NZBC /	D1/AS1 9.0, 9.1.1; H1/AS1 1.0.1
Communal residential buildings	D1/AS1 9.0, 9.1.1; H1/AS1 1.0.1
community care	D1/AS1 9.0, 9.1.1; H1/AS1 1.0.1
community carecommunity service	D1/AS1 9.0, 9.1.1; H1/AS1 1.0.1
community care Communes see Housing, group dwellings Community care buildings	D1/AS1 9.0, 9.1.1; H1/AS1 1.0.1NZBC/A1 4.0.2
community care	D1/AS1 9.0, 9.1.1; H1/AS1 1.0.1NZBC/A1 4.0.2
community care	D1/AS1 9.0, 9.1.1; H1/AS1 1.0.1 NZBC/A1 4.0.2 NZBC/A1 3.0.2 D1/AS1 1.1.3 D1/AS1 1.1.3 C/AS1 6.18.1, 6.18.10 C/AS1 6.18.1, 6.18.4 to 6.18.6 C/AS1 6.18.7 to 6.18.10 C/AS1 6.18.4 C/AS1 6.18.7 to 6.18.10 C/AS1 6.18.2, 6.18.3, Figure 6.10
community care	D1/AS1 9.0, 9.1.1; H1/AS1 1.0.1 NZBC/A1 4.0.2 NZBC/A1 3.0.2 D1/AS1 1.1.3 D1/AS1 1.1.3 C/AS1 6.18.1, 6.18.4 to 6.18.6 C/AS1 6.18.7 to 6.18.10 C/AS1 6.18.7 to 6.18.10 C/AS1 6.18.2, 6.18.3, Figure 6.10 Ire
community care	D1/AS1 9.0, 9.1.1; H1/AS1 1.0.1 NZBC/A1 4.0.2 NZBC/A1 3.0.2 D1/AS1 1.1.3 D1/AS1 1.1.3 C/AS1 6.18.1, 6.18.10 C/AS1 6.18.4 to 6.18.6 C/AS1 6.18.7 to 6.18.10 C/AS1 6.18.4 C/AS1 6.18.3, Figure 6.10 ITE B1/VM4 A1.2.1 b)



Construction moisture	E2/AS1 11.0
maximum acceptable moisture contents	E2/AS1 11.2
measuring moisture content	E2/AS1 11.3
concrete floors	E2/AS1 11.3.2
timber	E2/AS1 11.3.1
moisture in materials	E2/AS1 11.1
Construction site barriers	F4/AS1 1.2.6
Construction and Demolition Hazards	F5
areas accessible to the public	NZBC/F5.3.2
barriers	NZBC/F5.3.2, F5.3.4
	F5/AS1 1.0
entry of children	NZBC/F5.2 (d), F5.3.3; F5/AS1 1.0.2
falling objects	NZBC/F5.2 (a) (b), F5.3.1
lifting equipment	NZBC/F5.3.4
Contaminants see Hazardous agents on site, contamin	ants
Contaminated air discharge	G4/AS1 1.3.1 f)
Control panel	F7/AS1 1.1.5, 1.2.2, 2.2.2 b)
Cooling towers	
Corridors	
see also Access Routes	
Corrosives see Hazardous Substances and Process	ses, Class 8
Creep	
see Structure, loads	

Cross connections

see Protection of water supplies

Cyclic loads

see Structure, loads



D

Dampness see External Moisture, Internal Moisture Dams see Ancillary buildings Dangerous goods see also Hazardous Building Materials, Hazardous Substances and Processes see Early childhood centres, Communal non-residential buildings Dead ends see Escape routes see also Membrane roofs and decks see also Enclosed Balustrades pergolas **E2/AS1** 7.2.2, Figure 15 slatted timber decks to walls **E2/AS1** 7.2.1, Figure 15 concrete slab E2/AS1 Paragraph 7.3.2.1, Figure 17B timber option **E2/AS1** 7.3.1.2 Deflections see Structure Demolition see Construction and Demolition Hazards see also Commercial buildings Design see Drains foundations see Foundations loadings **B1/VM1** 1.1, 2.0 siteworks B1/VM1 10.0 strength reduction factor **B1/VM4** 2.0.1, 3.5.1, 4.7, Tables 1 and 4 see also Timber barriers windows see Windows



Design loads see Structure, loads Detached dwellings see Housing Differential movement see Structure, loads Disabled persons see a Person with a disability Figures 6 and 11, Table 4 waste pipes 5.3.1, 5.6, Figures 7 to 9, Tables 3, 4 and 6 see also Discharge pipes, Pipes Figures 7 and 8, Table 6, **G13/AS2** 4.1.5, Figure 5 Domestic buildings see Housing Doors see also Windows and doors NZBC/D1.3.4 (f), D1.3.1 (c), D1.3.3 (n), D1.3.4 (f), D2.3.5 (c), F5.3.2 (d); C/AS1 3.9.1, 3.11.6, 6.19.4; D1/AS1 7.0, Figure 27: fire doors **C/AS1** 3.3.1 b), 3.6.1 c), 3.11.9, 3.17.9, 3.17.13, 6.19.2 a), C8.1, Figures 3.29 to 3.31, Table 6.1; revolving doors, automatic doors and

Figure 3.26; **D1/AS1** 7.0.6, Figure 29

Figures 3.27, 3.28 and 6.1, Table 6.1



	oors (continued)
	subdividing escape routes
D1/AS1 7.0.6	
D1/AS1 7.0.4	visibility
C/AS1 3.17.6, 5.8.10	vision panels
D1/AS1 7.0.3	width
C/AS1 9.4	ownlights
E1/AS1 3.4.2 a) b), 3.7.8, 4.0, 5.1.1	
E1/AS1 3.4.2 a) b), 3.7.6, 4.0, 3.11	· ·
E1/AS1 4.1, Table 4	
E1/AS1 4.7, Table 5	
	· ·
G13/AS1 5.1.2, 5.5.2, 5.7.3, 5.7.4 b)	rainage system
G13/AS2 1.0.2, 3.1.1, 3.3.2, 4.1.1, 5.10.1	
NZBC/G13.2, G13.3.1 (a), G13.3.2	rains
G13.3.3, G15.3.3; B1/VM1 11.0	
B1/AS1 6.0; G13/AS1 4.2.2 d), G13/AS2 1.0	
E1/AS1 3.7, 3.7.3, 3.7.7, 3.7.8	
1 5.0.1, E1/AS1 3.7.1, 3.7.2 b), 3.7.4, 3.7.5, Figure 12	
E1/AS1 3.7.1, 3.7.2 b), 3.7.4, 3.7.5, Figure 11	
E1/AS1 3.7.1, 3.7.2 b	
E1/AS1 3.3, 3.7.3 a), Figures 4 and 5	
	see also Drain, layout
E1/AS1 3.9, 3.9.2, Figure 13; G13/AS2 Figure 7	9
E1/AS1 3.9.8	
E1/AS1 3.9.5; G13/AS2 Table 1	
E1/AS1 3.9.6; G13/AS2 5.5	
E1/AS1 3.9.7, Figure 14	, ,
E1/AS1 3.9.3	· · · · · · · · · · · · · · · · · · ·
E1/AS1 3.9.4	
G13/AS2 3.1	
E1/AS1 3.4.2, Figures 6 and 7	
	diameter
	see Drains, sizing
G13/AS2 5.10	
E1/VM1 4.3	
	•
E1/AS1 3.7.6 to 3.7.8	
.1, 3.7.3 b) ; G13/AS1 Table 5, G13/AS2 3.5, Table 2	
	=
G13/AS2 5.0, 5.5	-
E1/AS1 3.5, Table 3; G13/AS2 5.1	
E1/AS1 3.3.1, 3.7.3 a), Figures 4 and 5	
E1/VM1 8.0, E1/AS1 3.8	
E1/VM1 8.3	
E1/VM1 8.2	• '
E1/VM1 8.1	water test
	maintenance access
ins	see Maintenance acces
E1/AS1 3.1, Table 1; G13/AS2 2.0, Table 1	materials
E1/VM1 4.2	
E1/VM1 4.1	
E1/VM1 4.1.10	
E1/VM1 4.1.6, 4.1.7	tailwater depth
G13/AS2 5.6, Figure 8	The state of the s
E1/VM1 4.0, 4.1.11 E1/AS1 1.0.1 d	secondary flow
E1/VM1 4.3	



Drains (continued)

	E1/VM1 7.0
	3.0, E1/AS1 3.2, Figure 3; G13/AS2 3.6, Table 2
	E1/VM1 5.0
,	E1/VM1 1.0.4, 3.2, Figures 6 and 7
•	E1/VM1 3.2.2, Figure 5 a)
	E1/VM1 6.0
,	
• •	E1/VM1 9.0, Figure 13
·	E1/AS1 3.6.1, 3.6.2, Figures 8 and 9
•	
	E1/AS1 3.7.6; G13/AS2 5.8, 5.9, Figure 13
	E1/VM1 4.1, 4.2
ventilation	G13/AS2 4.0, Figures 4 to 6, Table 3
	G13/AS2 6.1.1
Draught diverters	
Drinking fountains	
Diliking lountains	
•	B2; B2/VM1 1.0, B2/AS1 1.2, Figure 1
Durability	•
Durability code compliance certificate ease of access and replacement	B2; B2/VM1 1.0, B2/AS1 1.2, Figure 1
Durability code compliance certificate ease of access and replacement evaluation	
Durability code compliance certificate ease of access and replacement evaluation examples of requirement	B2; B2/VM1 1.0, B2/AS1 1.2, Figure 1
Durability code compliance certificate ease of access and replacement evaluation examples of requirement generic materials	B2; B2/VM1 1.0, B2/AS1 1.2, Figure 1
Durability code compliance certificate ease of access and replacement evaluation examples of requirement generic materials in service history	B2; B2/VM1 1.0, B2/AS1 1.2, Figure 1 NZBC/B2.3 B2/AS1 1.2.1 B2/VM1 1.0, B2/AS1 1.2, Figure 1 B2/AS1 1.3.1, Table 1 B2/AS1 3.0 B2/VM1 1.1
Durability code compliance certificate ease of access and replacement evaluation examples of requirement generic materials in service history laboratory testing	B2; B2/VM1 1.0, B2/AS1 1.2, Figure 1 NZBC/B2.3 B2/AS1 1.2.1 B2/VM1 1.0, B2/AS1 1.2, Figure 1 B2/AS1 1.3.1, Table 1 B2/AS1 3.0 B2/VM1 1.1 B2/VM1 1.1
Durability code compliance certificate ease of access and replacement evaluation examples of requirement generic materials in service history laboratory testing similar materials	B2; B2/VM1 1.0, B2/AS1 1.2, Figure 1 NZBC/B2.3 B2/AS1 1.2.1 B2/VM1 1.0, B2/AS1 1.2, Figure 1 B2/AS1 1.3.1, Table 1 B2/AS1 3.0 B2/VM1 1.1 B2/VM1 1.2 B2/VM1 1.2
Durability code compliance certificate ease of access and replacement evaluation examples of requirement generic materials in service history laboratory testing similar materials intended life	B2; B2/VM1 1.0, B2/AS1 1.2, Figure 1 NZBC/B2.3 B2/AS1 1.2.1 B2/VM1 1.0, B2/AS1 1.2, Figure 1 B2/AS1 1.3.1, Table 1 B2/AS1 3.0 B2/VM1 1.1 B2/VM1 1.2 B2/VM1 1.3 NZBC/B1.3.1, B2.1, B2.3
Durability code compliance certificate ease of access and replacement evaluation examples of requirement generic materials in service history laboratory testing similar materials intended life 5 year durability	B2; B2/VM1 1.0, B2/AS1 1.2, Figure 1 NZBC/B2.3 B2/AS1 1.2.1 B2/VM1 1.0, B2/AS1 1.2, Figure 1 B2/AS1 1.3.1, Table 1 B2/AS1 3.0 B2/VM1 1.1 B2/VM1 1.2 B2/VM1 1.3 NZBC/B1.3.1, B2.1, B2.3 B2/AS1 Table 1
Durability code compliance certificate ease of access and replacement evaluation examples of requirement generic materials in service history laboratory testing similar materials intended life 5 year durability 15 year durability	B2; B2/VM1 1.0, B2/AS1 1.2, Figure 1
Durability code compliance certificate ease of access and replacement evaluation examples of requirement generic materials in service history laboratory testing similar materials intended life 5 year durability 15 year durability 50 year durability	B2; B2/VM1 1.0, B2/AS1 1.2, Figure 1
Durability code compliance certificate ease of access and replacement evaluation examples of requirement generic materials in service history laboratory testing similar materials intended life 5 year durability 15 year durability 50 year durability maintenance	B2; B2/VM1 1.0, B2/AS1 1.2, Figure 1 NZBC/B2.3 B2/AS1 1.2.1 B2/VM1 1.0, B2/AS1 1.2, Figure 1 B2/AS1 1.3.1, Table 1 B2/AS1 3.0 B2/VM1 1.1 B2/VM1 1.2 B2/VM1 1.3 NZBC/B1.3.1, B2.1, B2.3 B2/AS1 Table 1 B2/AS1 Table 1 B2/AS1 Table 1 B2/AS1 Table 1 B2/AS1 Table 1
Durability code compliance certificate ease of access and replacement evaluation examples of requirement generic materials in service history laboratory testing similar materials intended life 5 year durability 15 year durability 50 year durability maintenance normal	B2; B2/VM1 1.0, B2/AS1 1.2, Figure 1
Durability code compliance certificate ease of access and replacement evaluation examples of requirement generic materials in service history laboratory testing similar materials intended life 5 year durability 15 year durability 50 year durability maintenance normal scheduled	B2; B2/VM1 1.0, B2/AS1 1.2, Figure 1
Durability code compliance certificate ease of access and replacement evaluation examples of requirement generic materials in service history laboratory testing similar materials intended life 5 year durability 15 year durability 50 year durability maintenance normal scheduled specified intended life	B2; B2/VM1 1.0, B2/AS1 1.2, Figure 1

Dynamic loads

see Structure, loads



Ε

Early childhood centres	G2.2, G3.2.1, G3.3.1 (a) to (d),G5.2.1 (a), 1, G5.3.2, G7.2, G12.3.4; G2/AS1 Table 1; G3/AS1 1.0.1; G5/AS1 1.0.3
see also Communal non-residential buildings	
Earth buildings	B2/AS1 3.4
Earth pressure see Structure , loads	
Earth retaining structures	B1/VM4 2.0.3
Earthquakes see Structure, loads	P4004
seismic resistance of building services	B1/VW1 14.0
Ease of access and replacement	B2/AS1 1.2.1
Effluents	B1/VM4 A1.2.1 f)
finish coats reinforcing reinforcing base coat EIFS/floor slab junction general installation fixing blocks fixings joints movement control joints insulation battens limitations materials fibreglass reinforcing mesh polystyrene sheet parapets and enclosed balustrades EIFS topped enclosed balustrades metal cappings pipes and service penetrations windows and doors	E2/AS1 9.9.6 E2/AS1 9.9.6.4 E2/AS1 9.9.6.3 E2/AS1 9.9.6.1 E2/AS1 9.9.6.2 E2/AS1 9.9.7, Figure 125 E2/AS1 9.9.4, Table 23 E2/AS1 9.9.4.1, Table 24 E2/AS1 9.9.4.3, Figure 124 E2/AS1 9.9.5 E2/AS1 9.9.5 E2/AS1 9.9.5 E2/AS1 9.9.6 E2/AS1 9.9.7 E2/AS1 9.9.8 E2/AS1 9.9.8 E2/AS1 9.9.10 E2/AS1 9.9.10 E2/AS1 9.9.8, Figure 126 E2/AS1 9.9.9, Figures 127 and 128
Electrical codes of practice	
laundries	G9.1, G9.2, G9.3.1 to G9.3.3; G9/VM1 1.0

173



	E2/AS1 7.4, 9.3.9, 9.4.8, 9.5.5,9.6.9.8, 9.7.8, 9.8.7, 9.9.10, Figures 101 and 102
balustrade-to-deck floor junction	E2/AS1 7.4.3, Figures 18 and 62
balustrade-to-wall junctions	E2/AS1 7.4.2, Figures 11-13
	E2/AS1 7.4.1
	E2/AS1 9.9.10.2, Figure 129
• •	E2/AS1 9.7.8.1, Figure 117
	E2/AS1 7.4.4, Table 7, Figure 5
	E2/AS1 7.4.4.1, Figures 11-13 E2/AS1 7.4.4.2, Figures 11-13
•	E2/AS1 7.4.4.2, Figures 11-13
	E2/AS1 9.3.9.1, Figure 117
Enclosing rectangles	C/AS1 /.3.6, /.5, /.6
building on sloping sites and	C/AS1 7.5.9, 7.5.10, Figure 7.7
0 0	C/AS1 7.5.7, 7.5.8, Figure 7.7
	C/AS1 7.3.4 a), 7.3.6 to 7.3.8,
	7.3.12, 7.5, Figures 7.5 to 7.7, Table 7.2
Method 3	C/AS1 7.3.4 b), .3.8, 7.3.12, 7.6, Figure 7.8
Method 4C/AS1 7.3	3.4 c), 7.3.9, 7.7, Figure 7.9, Tables 7.3 and 7.4
Energy cut-offs	G12/AS1 6.4.1 c), 6.5.2
Energy Efficiency	H1; E3/AS1 1.1.5;
building performance index (BPI)	NZBC/H1.3.2; H1/VM1 1.2
	NZBC/H1.3.3 (d) (f); H1/AS1 4.0
	NZBC/H1.3.4
	NZBC/H1.3.2
indoor temperature and humidity	NZBC/H1.2 (a), H1.3.1
Energy efficiency provisions	
	H1/AS1 3.0
5 5	H1/AS1 1.0.3, 6.0
• .	
The state of the s	
internal moisture gain	VM1 1.2.1 Comment, H1/AS1 2.1.1 Comment
· ·	VM1 1.2.1 Comment, H1/AS1 2.1.1 Comment
solar heat gain	
solar heat gain	
solar heat gain Entrances principal	
solar heat gain Entrances principal Environment	
solar heat gain Entrances principal Environment see Interior Environment	
solar heat gain Entrances principal Environment see Interior Environment Escalators	
Entrances principal Environment see Interior Environment Escalators see Mechanical Installations for Access	
solar heat gain Entrances principal Environment see Interior Environment Escalators	
Entrances principal Environment see Interior Environment Escalators see Mechanical Installations for Access	M1/AS1 4.0 D1/AS1 1.1.1 S AS1 2.2.9 a), 3.3.4, 3.15.3 a), 3.15.6,3.15.7 a), 3.18.1, 4.5.10 b), 5.3.3 c), 7.10.3 Comment
solar heat gain Entrances principal Environment see Interior Environment Escalators see Mechanical Installations for Access Escape height	M1/AS1 4.0 D1/AS1 1.1.1 S AS1 2.2.9 a), 3.3.4, 3.15.3 a), 3.15.6,3.15.7 a), 3.18.1, 4.5.10 b), 5.3.3 c), 7.10.3 Comment 7.9.10, Figure 3.20, Table 4.1
solar heat gain Entrances principal Environment see Interior Environment Escalators see Mechanical Installations for Access Escape height	M1/AS1 4.0 D1/AS1 1.1.1 AS1 2.2.9 a), 3.3.4, 3.15.3 a), 3.15.6,3.15.7 a), 3.18.1, 4.5.10 b), 5.3.3 c), 7.10.3 Comment 7.9.10, Figure 3.20, Table 4.1 a, F8.2 (a), F8.3.3 (a); C/AS1 3.1 to 3.4, 3.6.1,
solar heat gain Entrances principal Environment see Interior Environment Escalators see Mechanical Installations for Access Escape height	M1/AS1 4.0 D1/AS1 1.1.1 S AS1 2.2.9 a), 3.3.4, 3.15.3 a), 3.15.6,3.15.7 a), 3.18.1, 4.5.10 b), 5.3.3 c), 7.10.3 Comment 7.9.10, Figure 3.20, Table 4.1
solar heat gain Entrances principal Environment see Interior Environment Escalators see Mechanical Installations for Access Escape height	M1/AS1 4.0 D1/AS1 1.1.1 AS1 2.2.9 a), 3.3.4, 3.15.3 a), 3.15.6,3.15.7 a), 3.18.1, 4.5.10 b), 5.3.3 c), 7.10.3 Comment 7.9.10, Figure 3.20, Table 4.1 a, F8.2 (a), F8.3.3 (a); C/AS1 3.1 to 3.4, 3.6.1, 1, 3.9.12 to 3.9.14, 3.11.4, 3.17.3, 3.17.5, 4.5.7,
Entrances principal Environment see Interior Environment Escalators see Mechanical Installations for Access Escape height	M1/AS1 4.0 D1/AS1 1.1.1 AS1 2.2.9 a), 3.3.4, 3.15.3 a), 3.15.6,3.15.7 a), 3.18.1, 4.5.10 b), 5.3.3 c), 7.10.3 Comment 7.9.10, Figure 3.20, Table 4.1 t, F8.2 (a), F8.3.3 (a); C/AS1 3.1 to 3.4, 3.6.1, 1, 3.9.12 to 3.9.14, 3.11.4, 3.17.3, 3.17.5, 4.5.7, Figures 3.1 to 3.5, Tables 3.1 and 3.2; D1/AS1 1.1.5; F8/AS1 3.0
solar heat gain Entrances principal Environment see Interior Environment Escalators see Mechanical Installations for Access Escape height	M1/AS1 4.0 D1/AS1 1.1.1 AS1 2.2.9 a), 3.3.4, 3.15.3 a), 3.15.6,3.15.7 a), 3.18.1, 4.5.10 b), 5.3.3 c), 7.10.3 Comment 7.9.10, Figure 3.20, Table 4.1 t, F8.2 (a), F8.3.3 (a); C/AS1 3.1 to 3.4, 3.6.1, 1, 3.9.12 to 3.9.14, 3.11.4, 3.17.3, 3.17.5, 4.5.7, Figures 3.1 to 3.5, Tables 3.1 and 3.2; D1/AS1 1.1.5; F8/AS1 3.0 C/AS1 3.3.7, 3.17.5 a)
Entrances principal Environment see Interior Environment Escalators see Mechanical Installations for Access Escape height	M1/AS1 4.0 D1/AS1 1.1.1 AS1 2.2.9 a), 3.3.4, 3.15.3 a), 3.15.6,3.15.7 a), 3.18.1, 4.5.10 b), 5.3.3 c), 7.10.3 Comment 7.9.10, Figure 3.20, Table 4.1 a, F8.2 (a), F8.3.3 (a); C/AS1 3.1 to 3.4, 3.6.1, 1, 3.9.12 to 3.9.14, 3.11.4, 3.17.3, 3.17.5, 4.5.7, Figures 3.1 to 3.5, Tables 3.1 and 3.2; D1/AS1 1.1.5; F8/AS1 3.0 C/AS1 3.3.7, 3.17.5 a) C/AS1 3.17
Entrances principal Environment see Interior Environment Escalators see Mechanical Installations for Access Escape height	H1/AS1 4.0 D1/AS1 1.1.1 AS1 2.2.9 a), 3.3.4, 3.15.3 a), 3.15.6,3.15.7 a), 3.18.1, 4.5.10 b), 5.3.3 c), 7.10.3 Comment 7.9.10, Figure 3.20, Table 4.1 4, F8.2 (a), F8.3.3 (a); C/AS1 3.1 to 3.4, 3.6.1, 1, 3.9.12 to 3.9.14, 3.11.4, 3.17.3, 3.17.5, 4.5.7, Figures 3.1 to 3.5, Tables 3.1 and 3.2; D1/AS1 1.1.5; F8/AS1 3.0 C/AS1 3.3.7, 3.17.5 a) C/AS1 3.17, 3.17.5 a) C/AS1 3.17, 3.17.5 a) C/AS1 3.17, 3.17.5 a)
Entrances principal Environment see Interior Environment Escalators see Mechanical Installations for Access Escape height	M1/AS1 4.0 D1/AS1 1.1.1 AS1 2.2.9 a), 3.3.4, 3.15.3 a), 3.15.6,3.15.7 a), 3.18.1, 4.5.10 b), 5.3.3 c), 7.10.3 Comment 7.9.10, Figure 3.20, Table 4.1 4.1, 78.2 (a), F8.3.3 (a); C/AS1 3.1 to 3.4, 3.6.1, 1, 3.9.12 to 3.9.14, 3.11.4, 3.17.3, 3.17.5, 4.5.7, Figures 3.1 to 3.5, Tables 3.1 and 3.2; D1/AS1 1.1.5; F8/AS1 3.0 C/AS1 3.3.7, 3.17.5 a) C/AS1 3.17, 3.17.5 a)
solar heat gain Entrances principal Environment see Interior Environment Escalators see Mechanical Installations for Access Escape height	H1/AS1 4.0 D1/AS1 1.1.1 AS1 2.2.9 a), 3.3.4, 3.15.3 a), 3.15.6,3.15.7 a), 3.18.1, 4.5.10 b), 5.3.3 c), 7.10.3 Comment 7.9.10, Figure 3.20, Table 4.1 4, F8.2 (a), F8.3.3 (a); C/AS1 3.1 to 3.4, 3.6.1, 1, 3.9.12 to 3.9.14, 3.11.4, 3.17.3, 3.17.5, 4.5.7, Figures 3.1 to 3.5, Tables 3.1 and 3.2; D1/AS1 1.1.5; F8/AS1 3.0 C/AS1 3.3.7, 3.17.5 a) C/AS1 3.17, 3.17.5 a) C/AS1 3.17, 3.17.5 a) C/AS1 3.17, 3.17.5 a)
solar heat gain Entrances principal Environment see Interior Environment Escalators see Mechanical Installations for Access Escape height	M1/AS1 4.0 D1/AS1 1.1.1 AS1 2.2.9 a), 3.3.4, 3.15.3 a), 3.15.6,3.15.7 a), 3.18.1, 4.5.10 b), 5.3.3 c), 7.10.3 Comment 7.9.10, Figure 3.20, Table 4.1 t, F8.2 (a), F8.3.3 (a); C/AS1 3.1 to 3.4, 3.6.1, 1, 3.9.12 to 3.9.14, 3.11.4, 3.17.3, 3.17.5, 4.5.7, Figures 3.1 to 3.5, Tables 3.1 and 3.2; D1/AS1 1.1.5; F8/AS1 3.0 C/AS1 3.3.7, 3.17.5 a) C/AS1 3.17, 3.17.5 a)
solar heat gain Entrances principal Environment see Interior Environment Escalators see Mechanical Installations for Access Escape height	M1/AS1 4.0 D1/AS1 1.1.1 AS1 2.2.9 a), 3.3.4, 3.15.3 a), 3.15.6,3.15.7 a), 3.18.1, 4.5.10 b), 5.3.3 c), 7.10.3 Comment 7.9.10, Figure 3.20, Table 4.1 t, F8.2 (a), F8.3.3 (a); C/AS1 3.1 to 3.4, 3.6.1, 1, 3.9.12 to 3.9.14, 3.11.4, 3.17.3, 3.17.5, 4.5.7, Figures 3.1 to 3.5, Tables 3.1 and 3.2; D1/AS1 1.1.5; F8/AS1 3.0 C/AS1 3.3.7, 3.17.5 a) C/AS1 3.17, 3.17.5 a)
solar heat gain Entrances principal Environment see Interior Environment Escalators see Mechanical Installations for Access Escape height	M1/AS1 4.0 D1/AS1 1.1.1 AS1 2.2.9 a), 3.3.4, 3.15.3 a), 3.15.6,3.15.7 a), 3.18.1, 4.5.10 b), 5.3.3 c), 7.10.3 Comment 7.9.10, Figure 3.20, Table 4.1 t, F8.2 (a), F8.3.3 (a); C/AS1 3.1 to 3.4, 3.6.1, 1, 3.9.12 to 3.9.14, 3.11.4, 3.17.3, 3.17.5, 4.5.7, Figures 3.1 to 3.5, Tables 3.1 and 3.2; D1/AS1 1.1.5; F8/AS1 3.0 C/AS1 3.3.7, 3.17.5 a) C/AS1 3.17, 3.17.5 a)
solar heat gain Entrances principal Environment see Interior Environment Escalators see Mechanical Installations for Access Escape height	M1/AS1 4.0 D1/AS1 1.1.1 AS1 2.2.9 a), 3.3.4, 3.15.3 a), 3.15.6,3.15.7 a), 3.18.1, 4.5.10 b), 5.3.3 c), 7.10.3 Comment 7.9.10, Figure 3.20, Table 4.1 t, F8.2 (a), F8.3.3 (a); C/AS1 3.1 to 3.4, 3.6.1, 1, 3.9.12 to 3.9.14, 3.11.4, 3.17.3, 3.17.5, 4.5.7, Figures 3.1 to 3.5, Tables 3.1 and 3.2; D1/AS1 1.1.5; F8/AS1 3.0 C/AS1 3.3.7, 3.17.5 a) C/AS1 3.17, 3.17.5 a)



split level exitwavs	C/AS1 3.15.8, Figure
	tways
	C/AS1 3.3.3, 3.3.6 b), 3.9.8, 6.20
	utes
•	C/AS1 3.3.2 to 3.3.5, 3.9.4 to 3.9.6, 3.9.12 e), 3.
	Figures 3.3, 3.4 and 3.6, Tables 3.2 and
length of escape routes	C/AS1 3.4, 3.5, 3.11.7, 6.
-	Figures 3.7, 3.9 and 3.10, Table
number of escape routes	C/AS1 3.2, Figure 3.2, Tabl
obstructions	C/AS1 3.3.6, 3.4.2 c), 3.17.5 a) e), 3
access control systems	
chains	C/AS1
crowd control barriers	
sliding bars	
turnstiles	
open paths	C/AS1 2.2.8, 3.1.2, 3.1.3, 3.1.5, 3.3
	3.3.7, 3.4.1, 3.4.2, 3.8, 3.9, 3.17.
	3.17.5 a), A2.1.1 Type 16, Figures 3.1
	3.9, 3.12 and 3.16, Table
dead end open paths	
	3.4.2, 3.5.1, 3.10, 3.14.4, Table
' '	gths
intermediate floors	C/AS1 3.3.2 f), 3.4
	3.4.6, 3.9.13, Figure
lengthC/AS1 1	.3.4 Step 2, 2.2.8, 3.1.3, 3.4.1, 3.4.2, 3.4.4, 3.4.6 to 3
	3.5, 3.15.1, Figures 3.7 and 3.9, Table
	C/AS1 3.1.4, 3.9.2, 3
	C/AS1 3.8.3, Figure
•	
	n buildings
•	
•	
	C/AS1 3.1.2, 3.7.1 a), 3.9.12, 3.9.13, 3.11.1, 3.
	3.15.3 b), 3.16.3, 6.9.1, 6.9.6 a), 6.10.
	6.11.3 b), Figures 3.1, 3.7, 3.8, 3.11,
	3.28 and 3.30, Tables 2.1 and
floor area	C/AS1 3.4.3, 3
length	C/AS1 3.1.3, 3.4.1, 3.4.4, 6.13.1 a), Table
subdivision	C/AS1 6.13
safe pathsC	C/AS1 3.1.2, 3.4.1 b), 3.7.1, 3.9.14, 3.11.4 to 3.11.6, 3.
	3.14.1, 3.15.3 b), 3.15.6, 3.15.8 a), 3.16.1,3.16.6, 3.
	3.16.9, 6.9.2 to 6.9.4, 6.10.4 a), 6.22.2 d), 7.2.1 b),
	A2.1.1 Type 13 Type 19, Figures 3.1, 3.8, 3.16, 3.19, 3
	3.22, 3.24, 3.29 to 3.31 and 5.1, Tables 2.1, 6.1 and
9 9	
	C/AS1 3.11.6 a), 3.11.7, 3.11.8, 3.17.9 b), 3.17.13 e), 6
•	
·	
vertical sate naths	C/AS1 3.11.6 b), 3.11.7, 3.12.3,3.13, 3.
vertical sale patris	3.17.9 b), 3.17.12 a), 3.17.13 e), 6.9.7, 6.



Escape routes (continued)

Liscape routes (continued)	
9	C/AS1 3.20
	C/AS1 3.15
	C/AS1 3.15.3, 3.15.4
	C/AS1 3.15.2, Figure 3.19
=	C/AS1 3.15.7, Figure 3.23
	C/AS1 3.15.7, Figure 3.22
external stairways	C/AS1 3.15.7
intermediate floors	C/AS1 6.22.2 c)
	C/AS1 3.15.6, Figure 3.21
	C/AS1 3.15.5, Figure 3.21
,	C/AS1 3.15.8, Figure 3.24
surface finishes	C/AS1 3.3.2 h), 3.4.2 e), Table 6.2
Equipotential bonding	G12/AS1 9.0
earth bonding conductors	G12/AS1 9.3
installation of conductors	G12/AS1 9.2
metallic sanitary fixtures	G12/AS1 9.2.2, Figure 20
metallic water supply pipes	G12/AS1 9.2.1, Figure 19
Escape through adjacent firecell	C/AS1 3.9.12, Figure 3.16
Escape through adjoining building	C/AS1 3.6, Figure 3.11
Evacuation time	NZBC/F6.3.1
Exitways	
,	F7/AS1 1.3.7
Explosion	
see Structure, loads, and Hazardous	Substances and Processes
Explosives	
see also Hazardous Substances and	Processes, Class 1 Explosives
External Moisture	E2
concealed spaces	NZBC/E2.3.5
elements in contact with the ground	NZBC/E2.3.3
external walls	NZBC/E2.3.2
moisture present at completion of con-	structionNZBC/E2.3.6
roofs	NZBC/E2.3.1, E2.3.2
scope	E2/VM1 1.2, AS1 1.0
construction excluded	E2/AS1 1.2

roofs	NZBC/E2.3.1, E2.3.2
scope	E2/VM1 1.2, AS1 1.0
construction excluded	E2/AS1 1.2
acoustics	E2/AS1 1.2.3
commercial and industrial roofing	E2/VM1 3.0
outbuildings	E2/AS1 1.2.1
skillion roofs	E2/VM1 3.0
spread of flame	E2/AS1 1.2.2
construction included	E2/AS1 1.1
provisions for snow	E2/AS1 1.3
qualifications	
specific design	E2/AS1 1.4
windows and doors	
snow	NZBC/E2.3.1
suspended floors	NZBC/E2.3.4
Verification Method	E2/VM1 1.0, 2.0, 3.0, Appendix 1
alternative test options	E2/VM1 1.5

arternative test options	
commercial and industrial roofing	E2/VM1 3.0
general	
pitched roofing systems	
scope	
skillion roofs	
sest procedure	=



External walls	C/AS1 3.14.3, 3.14.5, 3.14.6, 5.7.5, 5.7.6, 6.12.7, 7.1.1,
	7.3, 7.4.1, 7.5 to 7.7, 7.8.7, 7.9.7, 7.9.10, 7.9.11, 7.10,
	7.11.2, Figures 6.11, 6.12, 7.1, 7.3 and 7.11, Table 7.5
cladding	
fire resistance ratings	C/AS1 3.14.5, 3.14.6, 5.7.5, 5.7.6, 7.3.10, 7.4.3,
	7.8.3 to 7.8.5, 7.8.10 c), 7.9.9, 7.9.13, 7.10
firecell separation	C/AS1 7.3, 7.8 to 7.10, Figures 7.1 to 7.12, Tables 7.1 to 7.4
glazing	C/AS1 7.3.3 c), 7.3.5 to 7.3.7, 7.4, Figure 7.4, Table 7.1
return wallsC/	'AS1 7.3.3 e), 7.3.9, 7.7, 7.10.4, Figure 7.9, Tables 7.3 and 7.4
surface finishes	
wing walls	C/AS1 733d) 739 77 710 4 Tables 73 and 74



F

F rating see Fire resistance ratings Factories see Industrial buildings Falsework see Structure Farm buildings see Buildings, farm buildings Fascias see Gutters, barges and fascias FHC see Fire hazard category see Flammability index corners E2/AS1 9.7.5 flush-finished systems **E2/AS1** 9.7.5.2, Figures 111-113 (internal and external corners) non-flush-finished **E2/AS1** 9.7.5.1, Figures 109, 111-112 (internal and external corners) finishes **E2/AS1** 9.7.10 flush-finished cladding **E2/AS1** 9.7.10.2 installation **E2/AS1** 9.7.3, Table 23 fixings **E2/AS1** 9.7.3.1, Table 24 joints **E2/AS1** 9.7.4 control joints **E2/AS1** 9.7.4.1, Table 19 limitations E2/AS1 9.7.1 windows – direct fixed **E2/AS1** 9.7.7.1, Figure 115 fixings **E2/AS1** 9.5.3.1, Table 24 limitations **E2/AS1** 9.5.1 windows – direct fixed **E2/AS1** 9.5.4.1, Figure 90 Filters see Strainers 3.2, 3.12, 3.19, 3.24 and 3.31, Table 6.1; **F8/AS1** 3.1.1 a) b), 3.2.3 a) Fire alarm systems



see Fire safety precautions Fire hazard categories (FHC) C/AS1 1.3.2 Step 3, 2.2.1, 3.12.2 d),3.12.3 c), 3.15.2 b), 3.15.3 a), 4.2.3, 5.4.1 f) j), 6.6.7, 6.20.7, 6.20.15 a), 6.21.5 a), 6.22.1, 7.1.3, 7.3.2 b), 7.5.2, 7.5.3 Step 4, 7.7.5 Step 5, 7.8.1, 7.8.2, 7.8.9 c) d), 7.10.5 a), Figures 3.19, 3.20, 1 and 7.10 Note 3, Tables 2.1, 5.1, 7.1 to 7.4 1.3.5 b), 3.6.1 c), 3.14.6 c), 3.16.6, 4.1.2, 4.3.2, 5.1, 5.2, 5.9.5 a) b), 5.9.6, 6.2.1, 6.3.1, 6.6.1, 6.6.2, 6.6.5 to 6.6.7, 6.7.1, 6.7.2, 6.7.5, 6.7.6, 6.8.1, 6.9.2, 6.9.3, 6.10.1, 6.10.2, 6.10.5, 6.11.1, 6.12.1, 6.12.6, 6.14, 6.15, 6.16.2, 6.17.2, 6.18.8, 6.19.14, 7.2.1, 7.4.3, 7.8.1 a), 7.8.2 to 7.8.6, 7.8.10 b) c), 7.9.3, 7.9.4, 7.9.8 b), 7.9.13, 7.10, C7.1.1, Figure 7.10, Table 6.1 5.3.1, 5.4, 5.5.1, 5.6.5, 5.6.9 a), 6.15.1, 6.16.2, 6.20.15, 7.2.1 a), 7.10.2, 7.10.3, Table 4.1 floors**C/AS1** 3.14.6 c), 4.3.2, 5.6.4 d), 5.7.3, 6.10.3, 6.14, 6.15, 7.8.6 5.8.10, 6.19.13, 7.8.1 a), Table 6.1 Notes 5.2.2, 5.3.2, 5.4, 5.5.2, 5.5.3, 5.6.5, 5.6.9 a), 5.6.11, 6.10.5, 7.2.1, 7.4.3, 7.8.1 a), 7.8.5, 7.8.6, 7.10.2. 7.10.5, 7.10.8, Table 5.1 fire doors see Doors lift landing doors see Doors smoke control doors

.....

see Doors



Fire safety

$\it see$ Means of Escape, Outbreak of Fire, Spread of Fire, Structural Stability during Fire

	1 1.2.3, 1.3.2 Step 6, 2.3.1, 3.1.5, 4.2.6, 4.2.7, 4.3.1, 4.1, 4.5, 5.6.8, 6.10.1, 6.11.1, Appendix A, Table 4.1
	C/AS1 A2.1.1
emergency electrical power supply	
	C/AS1 6.23.1 d), 6.23.3, 6.23.4, A2.1
	C/AS1 3.19.2, 6.23.3 c), 6.23.4, A2.1
	F7/AS1 1.5.2
fire alarm systems	F7/AC4 0.1.1
•	
	F7/AS1 1.2.3, 1.2.6, 1.3.1, 1.3.2, 1.3.4, 1.3.5
	F7/AS1 1.1.3, 1.1.5, 1.2.6,
	1.2.7, 1.3, 1.4, 1.5.3
manual (Type 2) C/AS1 4.5	5.3, 4.5.9, 4.5.10 b), A2.1; F7/AS1 1.1.1, 1.1.2, 1.2.2
means of communication with the	ne Fire Service
see Alerting the Fire Service	
	F7/AS1 1.2.5 to 1.2.7
•	F7/AS1 2.1
	by heat detectors
7.	
	3.15.7 a), 4.1.1 a), 4.5.10, 4.5.11, 5.6.13,
	6.3.2 a) d), 6.6.8, 6.16.7, 6.18.10,
	6.19.9, A2.1, Appendix D, Figure 7.2
concessions for sprinklers	C/AS1 3.3.2 c), 3.4.8 d), 3.5.2, 3.14.3, 3.15.3 a),
	3.15.6, 3.15.7 a), 3.16.3 b), 4.2.5, 5.5.3, 5.6.6,
	5.6.7 b), 5.6.8, 5.8.7, 5.8.8, 6.3.1, 6.5.1, 6.7.2, 6.9.6 d), 6.9.11, 6.10.5, 6.13.1, 6.20.5, 6.20.10,
	6.20.15 a), 6.22.3 a), 7.2.2, 7.3.12, 7.7.6,
	7.9.3, 7.9.10, 8.1.1 e), Tables 4.1 Note 5, 6.2
residential	
with smoke detectors (Type 7)	C/AS1 3.12.2 b), 4.5.10, 4.5.11, 6.22.2 g), A2.1
fire sprinkler systems	
	F7/AS1 1.2.8, 1.3.2, 1.3.4
	C/AS1 8.2.3, 8.2.4, A2.1 C/AS1 3.5.3, 3.5.5, 4.5.4, 4.5.10, 4.5.11,
near detectors (Type 3)	6.10.4 c), 6.11.3 b), A2.1
hold-open devices	F7/AS1 1.3.6, 1.5.2
	C/AS1 4.5.3, 4.5.9, 4.5.10 b), A2.1
	F7/AS1 1.3.8, 1.5.2
mechanical smoke extract (Type 11)	
	6.22.7 c), 6.22.8 c), 6.22.11, 6.22.12,
	6.22.14, A2.1, B3.1.1, Table 6.6
	e 5)
	C/AS1 3.4.6 a), 3.4.8 d), 6.21.5, 6.22.7 b),
natural sirioke venting (Type 10)	6.22.8 b) c), 6.22.10, 6.22.14, A2.1,
	B3.1.1, Table 6.5
pressurisation of safe paths (Type 13	C/AS1 3.7.1 b), 3.11.6 b), 6.9.6,
	6.9.11, 6.13.1, 6.19.4 c), 6.21.2, 6.23.1 b),
	A2.1, B1.1.1, Table 6.1 Note 2;
(T 10)	F7/AS1 1.3.7, 1.5.2
reтuge areas (туре 19)	



Fire safety precautions (FSP) (continued)	
smoke control in air-handling systems	
(Type 9)smoke detectors	
. , ,	4.5.10, 4.5.11, 6.22.2 g), 6.22.14, 6.23.1, A2.1, B1.1.1
voice communication system (Type 8)) C/AS1 3.16.3 d), 8.2.6, A2.1
	5 b), 3.11.9, 4.1.1 a), 5.1.1, 5.3.1, 5.3.2 d) e), 5.6.3,
6	6.4 a), 5.6.5 c), 5.6.7, 5.7.2, 5.7.4, 6.2.1, 6.3.1, 6.6, .7, 6.8.1, 6.9.2, 6.9.3, 6.10.1, 6.10.2, 6.10.5, 6.11.1, 6.11.2, 6.12, 6.14.1, 6.14.4, 6.15.1 a), 6.17, 6.18.4, 6.18.7 to 6.18.10, 7.2.1, 7.2.2, Table 6.1 C/AS1 6.12.4 to 6.12.7, 6.12.9, 6.18.4, Figure 6.4
Fire Service	
see also Alerting the Fire Service	F7/AS1 1.2.2, 2.1.2 a), 2.2
<u> </u>	F7/AS1 1.1.3, 1.1.5, 1.2.6, 1.2.7, 1.3, 1.4, 1.5.3
	C/AS1 A1.3.1, A2.1.1 Type 2 and Type 7 F7/AS1 2.1
•	
	F7/AS1 1.2.5, 1.3, 1.4, 1.5.3
	C/AS1 8.1.1, 8.1.2
Fire shutters see Fire resisting closures	
Fire spread	0/804 / 1/1 1 7/1 1 7 7 7
between different levels of the sa	ame building C/AS1 7.9.10 to 7.9.15
	C/AS1 7.9.18, 7.9.19, Figure 7.12
	C/AS1 7.9.6 to 7.9.9, Figure 7.11 C/AS1 7.8.2, 7.9.16, 7.9.17
	5.12.7 a), 6.12.9, 6.17, 6.18.1, 6.18.4, C7.1.1, C7.1.2,
cavity barriers	Figures 6.4, 6.9 and 6.11 C/AS1 6.18.4, 6.18.6, Figure 6.12
curtain walls	C/AS1 7.9.14, Figure 6.11
	C/AS1 7.9.18, Figure 7.12
protected shafts	C/AS1 6.17.5, Figure 6.12 C/AS1 3.12.3 e), 6.16.3, 6.16.4 e), Figure 6.8
Firecell rating (F) see Fire resistance ratings	
· ·	F7/AS1 1.2.5 to 1.2.7, 1.3.1, 1.3.4, 1.3.5
	C/AS1 3.7, 4.5.15, 6.14.4
	ire
concealed spaces	C/AS1 6.18.2, 6.18.3
, , , ,	ups C/AS1 5.6.7, 5.6.8
fire safety precautions see Fire safety precautions	
firecells rated F0	C/AS1 6.2
	C/AS1 4.2.3 to 4.2.5 C/AS1 6.6.3, 6.6.4, 6.6.7, 6.7.2 to 6.7.5
	C/AS1 4.5.16 to 4.5.18, 6.14.1 a), 6.14.3, 6.21.3
	to 6.21.6, Figure 6.6, Tables 6.5 and 6.6



Firecells (continued)

limited area atriums	
plant, boiler and incinerator roo protected shafts	ms
9	C/AS1 6.10.2
	S1 2.2.9, 3.15.5, 6.6.5, 6.7.6, 6.9.6, 6.14.3, A2.1.1 Type 5
•	
Fireplace	
Fire Safety	
Fixings E2/AS1 4.4	, 8.1.4, 8.2.4, 8.3.7, 8.4.8, 8.4.8.1, 8.4.9, 8.4.9.1, 9.4.3.1, 9.4.4.3, 9.4.5.2, 9.5.3.1, 9.6.6, 9.7.3.1, 9.8.3.1, 9.9.4.1, Tables 14, 15, 20-22, 24, Figures 39 and 40
Fixtures sanitary fixtures	
see Personal Hygiene	
Flame barriers	S1 3.14.6 b) c), 6.18.5 c), 6.20.12 a), 6.20.13, 6.20.14 b), C10.1, Table 6.3
Flammability index (FI)	
Flammable liquids see Hazardous Substances a	nd Processes, Class 3 flammable liquids
Flammable solids	nd Processes Class 4 flammable polide
see nazardous Substances a	nd Processes, Class 4 flammable solids
Flashings E2/A	S1 4.0, 8.2.4, 8.2.6, 8.3.8, 8.4.11, 8.4.11.1, 8.4.12, 9.6.7,
	Tables 20-22, Figures 5 and 6
	E2/AS1 5.1, 8.4.12 b), Figures 7 and 43
	E2/AS1 4.2.1
fixings	F2/AS1 // //
· ·	E2/AS1 9.1.10.4, Table 7
jamb flashings	E2/AS1 9.1.10.4, Table 7 E2/AS1 9.1.10.6, Table 7
jamb flashings materials	E2/AS1 9.1.10.4, Table 7 E2/AS1 9.1.10.6, Table 7 E2/AS1 4.1, 4.2, 4.2.2, 4.2.3, 4.2.4, 4.3, 9.8.5
jamb flashings materials aluminium	E2/AS1 9.1.10.4, Table 7 E2/AS1 9.1.10.6, Table 7
jamb flashings materials aluminium aluminium-zinc coated stee	E2/AS1 9.1.10.4, Table 7 E2/AS1 9.1.10.6, Table 7 E2/AS1 4.1, 4.2, 4.2.2, 4.2.3, 4.2.4, 4.3, 9.8.5 E2/AS1 4.3.2 E2/AS1 4.3.4
jamb flashings	E2/AS1 9.1.10.4, Table 7 E2/AS1 9.1.10.6, Table 7 E2/AS1 4.1, 4.2, 4.2.2, 4.2.3, 4.2.4, 4.3, 9.8.5 E2/AS1 4.3.2
jamb flashings	E2/AS1 9.1.10.4, Table 7
jamb flashings	E2/AS1 9.1.10.4, Table 7 E2/AS1 9.1.10.6, Table 7 E2/AS1 9.1.10.6, Table 7 E2/AS1 4.1, 4.2, 4.2.2, 4.2.3, 4.2.4, 4.3, 9.8.5 E2/AS1 4.3.2 E2/AS1 4.3.4 E2/AS1 4.3.10 E2/AS1 4.3.9 E2/AS1 4.3.6 E2/AS1 4.3.9
jamb flashings	E2/AS1 9.1.10.4, Table 7 E2/AS1 9.1.10.6, Table 7 E2/AS1 4.1, 4.2, 4.2.2, 4.2.3, 4.2.4, 4.3, 9.8.5 E2/AS1 4.3.2 E2/AS1 4.3.4 E2/AS1 4.3.10 E2/AS1 4.3.9 E2/AS1 4.3.6 E2/AS1 4.3.9 E2/AS1 4.3.9
jamb flashings	E2/AS1 9.1.10.4, Table 7 E2/AS1 9.1.10.6, Table 7 E2/AS1 9.1.10.6, Table 7 E2/AS1 4.1, 4.2, 4.2.2, 4.2.3, 4.2.4, 4.3, 9.8.5 E2/AS1 4.3.2 E2/AS1 4.3.4 E2/AS1 4.3.10 E2/AS1 4.3.6 E2/AS1 4.3.9 E2/AS1 4.3.9 E2/AS1 4.3.9 E2/AS1 4.3.1
jamb flashings	E2/AS1 9.1.10.4, Table 7 E2/AS1 9.1.10.6, Table 7 E2/AS1 9.1.10.6, Table 7 E2/AS1 4.1, 4.2, 4.2.2, 4.2.3, 4.2.4, 4.3, 9.8.5 E2/AS1 4.3.2 E2/AS1 4.3.4 E2/AS1 4.3.10 E2/AS1 4.3.9 E2/AS1 4.3.9 E2/AS1 4.3.9 E2/AS1 4.3.9 E2/AS1 4.3.1 E2/AS1 4.3.3 E2/AS1 4.3.3
jamb flashings	E2/AS1 9.1.10.4, Table 7 E2/AS1 9.1.10.6, Table 7 E2/AS1 9.1.10.6, Table 7 E2/AS1 4.1, 4.2, 4.2.2, 4.2.3, 4.2.4, 4.3, 9.8.5 E2/AS1 4.3.2 E2/AS1 4.3.4 E2/AS1 4.3.10 E2/AS1 4.3.9 E2/AS1 4.3.9 E2/AS1 4.3.9 E2/AS1 4.3.11 E2/AS1 4.3.3 E2/AS1 4.3.3 E2/AS1 4.3.3 E2/AS1 4.3.7
jamb flashings	E2/AS1 9.1.10.4, Table 7 E2/AS1 9.1.10.6, Table 7 E2/AS1 9.1.10.6, Table 7 E2/AS1 4.1, 4.2, 4.2.2, 4.2.3, 4.2.4, 4.3, 9.8.5 E2/AS1 4.3.2 E2/AS1 4.3.4 E2/AS1 4.3.10 E2/AS1 4.3.9 E2/AS1 4.3.9 E2/AS1 4.3.9 E2/AS1 4.3.11 E2/AS1 4.3.3 E2/AS1 4.3.3 E2/AS1 4.3.7 E2/AS1 4.3.5 E2/AS1 4.3.5
jamb flashings	E2/AS1 9.1.10.4, Table 7 E2/AS1 9.1.10.6, Table 7 E2/AS1 4.1, 4.2, 4.2.2, 4.2.3, 4.2.4, 4.3, 9.8.5 E2/AS1 4.3.2 E2/AS1 4.3.4 E2/AS1 4.3.10 E2/AS1 4.3.9 E2/AS1 4.3.9 E2/AS1 4.3.9 E2/AS1 4.3.11 E2/AS1 4.3.3 E2/AS1 4.3.7 E2/AS1 4.3.5 E2/AS1 4.3.5 E2/AS1 4.3.1
jamb flashings	E2/AS1 9.1.10.4, Table 7 E2/AS1 9.1.10.6, Table 7 E2/AS1 9.1.10.6, Table 7 E2/AS1 4.1, 4.2, 4.2.2, 4.2.3, 4.2.4, 4.3, 9.8.5 E2/AS1 4.3.2 E2/AS1 4.3.4 E2/AS1 4.3.10 E2/AS1 4.3.9 E2/AS1 4.3.9 E2/AS1 4.3.9 E2/AS1 4.3.11 E2/AS1 4.3.3 E2/AS1 4.3.7 E2/AS1 4.3.5 E2/AS1 4.3.5 E2/AS1 4.3.1 E2/AS1 4.3.8 E2/AS1 4.3.8
jamb flashings	E2/AS1 9.1.10.4, Table 7 E2/AS1 9.1.10.6, Table 7 E2/AS1 9.1.10.6, Table 7 E2/AS1 4.1, 4.2, 4.2.2, 4.2.3, 4.2.4, 4.3, 9.8.5 E2/AS1 4.3.2 E2/AS1 4.3.4 E2/AS1 4.3.10 E2/AS1 4.3.9 E2/AS1 4.3.6 E2/AS1 4.3.9 E2/AS1 4.3.11 E2/AS1 4.3.3 E2/AS1 4.3.3 E2/AS1 4.3.7 E2/AS1 4.3.5 E2/AS1 4.3.1 E2/AS1 4.3.6
jamb flashings	E2/AS1 9.1.10.4, Table 7 E2/AS1 9.1.10.6, Table 7 E2/AS1 9.1.10.6, Table 7 E2/AS1 4.1, 4.2, 4.2.2, 4.2.3, 4.2.4, 4.3, 9.8.5 E2/AS1 4.3.2 E2/AS1 4.3.4 E2/AS1 4.3.10 E2/AS1 4.3.9 E2/AS1 4.3.6 E2/AS1 4.3.9 E2/AS1 4.3.11 E2/AS1 4.3.3 E2/AS1 4.3.7 E2/AS1 4.3.5 E2/AS1 4.3.5 E2/AS1 4.3.1 E2/AS1 4.3.6 E2/AS1 4.3.6 E2/AS1 4.3.6 E2/AS1 4.3.7 E2/AS1 4.3.6 E2/AS1 4.3.6 E2/AS1 4.3.6 E2/AS1 4.3.6 E2/AS1 4.3.6 E2/AS1 4.3.6
jamb flashings	E2/AS1 9.1.10.4, Table 7 E2/AS1 9.1.10.6, Table 7 E2/AS1 9.1.10.6, Table 7 E2/AS1 4.1, 4.2, 4.2.2, 4.2.3, 4.2.4, 4.3, 9.8.5 E2/AS1 4.3.2 E2/AS1 4.3.4 E2/AS1 4.3.10 E2/AS1 4.3.9 E2/AS1 4.3.6 E2/AS1 4.3.9 E2/AS1 4.3.11 E2/AS1 4.3.3 E2/AS1 4.3.3 E2/AS1 4.3.7 E2/AS1 4.3.5 E2/AS1 4.3.1 E2/AS1 4.3.6
jamb flashings	E2/AS1 9.1.10.4, Table 7 E2/AS1 9.1.10.6, Table 7 E2/AS1 9.1.10.6, Table 7 E2/AS1 4.1, 4.2, 4.2.2, 4.2.3, 4.2.4, 4.3, 9.8.5 E2/AS1 4.3.2 E2/AS1 4.3.4 E2/AS1 4.3.10 E2/AS1 4.3.9 E2/AS1 4.3.6 E2/AS1 4.3.9 E2/AS1 4.3.11 E2/AS1 4.3.3 E2/AS1 4.3.7 E2/AS1 4.3.5 E2/AS1 4.3.1 E2/AS1 4.3.6 E2/AS1 4.3.6 E2/AS1 4.3.6 E2/AS1 4.3.6 E2/AS1 4.3.7 E2/AS1 4.3.6
jamb flashings	E2/AS1 9.1.10.4, Table 7 E2/AS1 9.1.10.6, Table 7 E2/AS1 9.1.10.6, Table 7 E2/AS1 4.1, 4.2, 4.2.2, 4.2.3, 4.2.4, 4.3, 9.8.5 E2/AS1 4.3.2 E2/AS1 4.3.4 E2/AS1 4.3.10 E2/AS1 4.3.9 E2/AS1 4.3.9 E2/AS1 4.3.11 E2/AS1 4.3.11 E2/AS1 4.3.3 E2/AS1 4.3.7 E2/AS1 4.3.5 E2/AS1 4.3.1 E2/AS1 4.3.6 E2/AS1 4.3.1 E2/AS1 4.3.5 E2/AS1 4.3.1 E2/AS1 4.3.6 E2/AS1 4.3.1 E2/AS1 4.3.6 E2/AS1 4.3.1 E2/AS1 4.3.5 E2/AS1 4.3.1 E2/AS1 4.3.5 E2/AS1 4.3.6 E2/AS1 4.3.1 E2/AS1 4.3.5
jamb flashings materials	E2/AS1 9.1.10.4, Table 7 E2/AS1 9.1.10.6, Table 7 E2/AS1 9.1.10.6, Table 7 E2/AS1 4.1, 4.2, 4.2.2, 4.2.3, 4.2.4, 4.3, 9.8.5 E2/AS1 4.3.2 E2/AS1 4.3.4 E2/AS1 4.3.10 E2/AS1 4.3.9 E2/AS1 4.3.9 E2/AS1 4.3.11 E2/AS1 4.3.11 E2/AS1 4.3.7 E2/AS1 4.3.7 E2/AS1 4.3.5 E2/AS1 4.3.1
jamb flashings	E2/AS1 9.1.10.4, Table 7 E2/AS1 9.1.10.6, Table 7 E2/AS1 9.1.10.6, Table 7 E2/AS1 4.1, 4.2, 4.2.2, 4.2.3, 4.2.4, 4.3, 9.8.5 E2/AS1 4.3.2 E2/AS1 4.3.4 E2/AS1 4.3.10 E2/AS1 4.3.9 E2/AS1 4.3.9 E2/AS1 4.3.11 E2/AS1 4.3.11 E2/AS1 4.3.7 E2/AS1 4.3.7 E2/AS1 4.3.5 E2/AS1 4.3.1 E2/AS1 4.3.1 E2/AS1 4.3.1 E2/AS1 4.3.1 E2/AS1 4.3.5 E2/AS1 4.3.1
jamb flashings	E2/AS1 9.1.10.4, Table 7 E2/AS1 9.1.10.6, Table 7 E2/AS1 9.1.10.6, Table 7 E2/AS1 4.1, 4.2, 4.2.2, 4.2.3, 4.2.4, 4.3, 9.8.5 E2/AS1 4.3.2 E2/AS1 4.3.4 E2/AS1 4.3.10 E2/AS1 4.3.9 E2/AS1 4.3.9 E2/AS1 4.3.11 E2/AS1 4.3.11 E2/AS1 4.3.3 E2/AS1 4.3.7 E2/AS1 4.3.5 E2/AS1 4.3.1 E2/AS1 4.3.1 E2/AS1 4.3.1 E2/AS1 4.6.1 E2/AS1 4.6.1 E2/AS1 4.6.1.5 Ches E2/AS1 4.6.1.7 E2/AS1 4.6.1.1 E2/AS1 4.6.1.2 E2/AS1 4.6.1.2 E2/AS1 4.6.1.4 E2/AS1 4.6.1.4 E2/AS1 4.6.1.4
jamb flashings	E2/AS1 9.1.10.4, Table 7 E2/AS1 9.1.10.6, Table 7 E2/AS1 9.1.10.6, Table 7 E2/AS1 4.1, 4.2, 4.2.2, 4.2.3, 4.2.4, 4.3, 9.8.5 E2/AS1 4.3.2 E2/AS1 4.3.4 E2/AS1 4.3.10 E2/AS1 4.3.9 E2/AS1 4.3.9 E2/AS1 4.3.11 E2/AS1 4.3.11 E2/AS1 4.3.3 E2/AS1 4.3.7 E2/AS1 4.3.5 E2/AS1 4.3.1 E2/AS1 4.3.1 E2/AS1 4.6.1 E2/AS1 4.6.1.5 E2/AS1 4.6.1.5 E2/AS1 4.6.1.7 E2/AS1 4.6.1.1 E2/AS1 4.6.1.4 E2/AS1 4.6.1.4 E2/AS1 4.6.1.4 E2/AS1 4.6.1.6
jamb flashings materials aluminium aluminium-zinc coated stee bituminous butyl rubber copper EPDM flexible flashing tape galvanised steel lead sheet stainless steel uPVC zinc sheet overlaps and upstands overlap with roof claddings apron flashing cover ove barges change in metal roof pit inter-storey junctions parallel flashing ridges and hips roof- or deck-to-wall jun- transverse flashing window heads requirements	E2/AS1 9.1.10.4, Table 7 E2/AS1 9.1.10.6, Table 7 E2/AS1 9.1.10.6, Table 7 E2/AS1 4.1, 4.2, 4.2.2, 4.2.3, 4.2.4, 4.3, 9.8.5 E2/AS1 4.3.4 E2/AS1 4.3.4 E2/AS1 4.3.10 E2/AS1 4.3.6 E2/AS1 4.3.6 E2/AS1 4.3.9 E2/AS1 4.3.11 E2/AS1 4.3.3 E2/AS1 4.3.7 E2/AS1 4.3.5 E2/AS1 4.3.5 E2/AS1 4.3.1 E2/AS1 4.3.1 E2/AS1 4.3.6 E2/AS1 4.6.1 E2/AS1 4.6.1 E2/AS1 4.6.1.1 E2/AS1 4.6.1.2 E2/AS1 4.6.1.1 E2/AS1 4.6.1.4 E2/AS1 4.6.1.4 E2/AS1 4.6.1.6 E2/AS1 4.6.1.1
jamb flashings	E2/AS1 9.1.10.4, Table 7 E2/AS1 9.1.10.6, Table 7 E2/AS1 9.1.10.6, Table 7 E2/AS1 4.1, 4.2, 4.2.2, 4.2.3, 4.2.4, 4.3, 9.8.5 E2/AS1 4.3.2 E2/AS1 4.3.4 E2/AS1 4.3.10 E2/AS1 4.3.9 E2/AS1 4.3.9 E2/AS1 4.3.11 E2/AS1 4.3.11 E2/AS1 4.3.3 E2/AS1 4.3.7 E2/AS1 4.3.5 E2/AS1 4.3.1 E2/AS1 4.3.1 E2/AS1 4.6.1 E2/AS1 4.6.1.5 E2/AS1 4.6.1.5 E2/AS1 4.6.1.7 E2/AS1 4.6.1.1 E2/AS1 4.6.1.4 E2/AS1 4.6.1.4 E2/AS1 4.6.1.4 E2/AS1 4.6.1.6



Flats see Housing, multi-unit dwelling	
<u>. </u>	
FLED	
see Fire load energy density	
Flooding	
flood risk assessment	E1/VM1 3.2.2
history of	E1/AS1 1.0.1
protection from	E1/VM1 3.2.2
FloorsNZBC/B2.3.1 (a), D1.3.3 (e), B1/AS2 2.1.1; E2/AS1 10.0;	F7/AS1 1.1.2; G3/AS1 2.2.3, 2.2.4, 2.3.3,
basement floors	2.3.4, 2.3.5, 2.3.6 C/AC1 2.3.2 i) 2.15.2 6.14.4 Figure 2.10
concealed spaces	
concrete slab-on-ground	
<u> </u>	E2/AS1 10.3.4
·	E2/AS1 10.3.3, Figure 132
	E2/AS1 10.3.5, Table 18, Figure 132
floor levels	E2/AS1 10.3.2, Figure 132
	E2/AS1 10.3.1, Figure 132
protection from timber	E2/AS1 10.3.6
fire resistance ratings	4.6 c), 4.1.1 a), 4.3.2, 4.5.7, 5.3.1, 5.6.4 d),
•	.7.3, 6.10.3, 6.12.2, 6.14.2 to 6.14.4, 6.15.1
	C/AS1 7.8.6, 7.9.13
•	C/AS1 6.20.8, 6.20.14
	AS1 3.3.2 f), 3.4.6, 3.9.13, 4.5.16 to 4.5.18, 5.16 b) 6.10.2 6.14.1 c) 6.14.2 6.21.2 6.22.
	5 b), 6.10.3, 6.14.1 a), 6.14.3, 6.21.3, 6.22, 0 and Type 11, B4.1.1, Figures 3.9 and 6.6,
AZ.I.I Type I	Tables 6.4 to 6.6
limited area intermediate floors	C/AS1 4.5.17, 6.21.4 a), 6.21.5, 6.21.6
	16.9, 4.5.10, 4.5.11, 6.7.7, 6.9.3, Figure 3.5
	C/AS1 4.5.1 to 4.5.6, 5.6.11
	C/AS1 4.5.8 to 4.5.11
same purpose group on different floors	C/AS1 4.5.13
sloping floors and ceilings	C/AS1 3.4.8 a)
•	C/AS1 6.15.1, 6.18.5 a), Figure 6.7
	C/AS1 4.5.14
upper floors	1 3.15.3 b), 3.16.3 a), 4.5.11, 5.7.6 b), 6.7.7,
	6.8.2, 6.8.6, 7.5.7, Figure 3.5
floor/ceiling assemblies	C/AS1 6.12.6, 6.20.14
floor/wall junctions	
minimum floor level	
moisture	
slip resistant	
suspended timber floors	
airflow	E2/AS1 10.2.6
general	E2/AS1 10.2.1
openings	E2/AS1 10.2.5
•	E2/AS1 10.2.2
•	E2/AS1 10.2.3, Figure 131
	E2/AS1 10.2.4
·	E2/AS1 10.2.7
	E2/AS1 10.2.7.2 er E2/AS1 10.2.7.1
'	•
Floor outlets	G13/AS1 3.4
Floor wastes	E3/AS1 2.0.1, 2.2, Figure 4



Flues	NZBC/G11.3.3; G4/AS1 2.3, 2.4; G11/AS1 5.0
fire damper	G11/AS1 5.3
0 11	C/AS1 9.2
locations on dwellings	G4/AS1 2.4
materials	G11/AS1 5.1
oil fired appliances	C/AS1 9.3
safety devices	G11/AS1 5.2
solid fuel appliances	C/AS1 9.1
·	C/AS1 6.20.1, 6.20.5 6.20.11 to 6.20.13, 7.9.18, Figure 7.12, Table 6.3
	Contamination G3
<u> </u>	NZBC/G3.3.1 (c); G3/AS1 1.2.1, 1.4.1
0, 11,	NZBC/G3.3.3
	NZBC/G3.3.4
	NZBC/G3.3.5
	NZBC/G3.3.1 (b) (d), G3.3.2
•	NZBC/G3.3.6
•	G3/AS1 1.1.1
9	NZBC/G3.3.1 (a); G3/AS1 1.3.1
•	G3/AS1 1.3.2, 1.4.1
	G3/AS1 1.3.2, 1.3.3, 1.3.4
	G3/AS1 1.1.2, 1.1.3, Figure 1
utensil washing	NZBC/G3.3.1 (b), G3.3.2
Foul Water	G13
see also Discharge pipes, Drains, Sa	anitary appliances, Sanitary fixtures, Vent pipes,
Water seals, Water traps	
gravity flow	NZBC/G13.3.1 (a), G13.3.2 (a)
	/G13.1 (b), G13.3.1 (c), G13.3.2 (e); G13/AS1 3.1.1
	NZBC/G13.1 (b)
on-site disposal systems	NZBC/G13.3.4
see also Industrial Liquid Was	
	NZBC/G13.2, G13.3.2
personal hygiene	NZBC/G13.1 (a)
	NZBC/G13.2, G13.3.1
	NZBC/G13.3.3, G13.3.4, G15.3.3
three storey buildings	
Farmdations	P4/VM4 1 0 2 P4/VM4
see also Chimneys, foundations	B1/VM1 1.0.2, B1/VM4
, ,	
design parameters	B1/VM4 1.0.6
	B1/VM4 1.0.0
•	
,	B1/VM4 1.0.4
	B1/VM4 2.0.6
	B1/VM4 2.0.6 B1/VM4 1.0.3, Appendix B
·	B1/VM4 4.0.3 b), 5.1.2
•	B1/VM4 4.0.3 c)
concrete piles	P4/VM4 2 4 4
	B1/VM4 3.4.4, 5.1.1
9	
	B1/VM4 4.0.3, 4.2.2, 4.6.1
	B1/VM4 5.1.1
	B1/VM4 4.0.1
pile groups	
	B1/VM4 4.0.4
design pile vertical strength.	
	B1/VM4 4.0.4
ultimate lateral strength	B1/VM4 4.6.1, Table 3
ultimate lateral strength	



Foundations (continued)

single piles	
base resistance	B1/VM4 4.1.3, Figures 3 and 4
column action	B1/VM4 4.2
design pile lateral strength	B1/VM4 4.0.4
design pile vertical strength	B1/VM4 4.0.4
lateral strength	B1/VM4 4.3
drained cohesionless soil	B1/VM4 4.3.4
free head pile	B1/VM4 4.3.2 a), 4.3.3 a), 4.3.4 a)
restrained head pile	B1/VM4 4.3.2 b), 4.3.3 b), 4.3.4 b)
undrained cohesive soil	B1/VM4 4.3.2
undrained consolidated soil	B1/VM4 4.3.3
shaft resistance	
ultimate axial compression	B1/VM4 4.0.1 to 4.0.3
vertical strength	B1/VM4 4.1.2
strength reduction factors	B1/VM4 4.7, Table 4
types	
concrete	B1/VM4 5.1.1, 5.1.2
steel	B1/VM4 5.2.1, 5.2.2
timber	B1/VM4 5.3
shallow foundations	B1/VM4 3.0
design bearing pressure	B1/VM4 3.2.1, 3.2.4
design bearing strength	B1/VM4 3.2.3
design sliding resistance	B1/VM4 3.4.6
local shear	B1/VM4 3.3.3
moment loading	B1/VM4 3.1.4
notation	B1/VM4 3.3.1, Figures 1 and 2
soils	B1/VM4 3.1.2, 3.4.3
strength reduction factors	B1/VM4 3.5,
surcharge	B1/VM4 3.1.3
ultimate bearing strength	B1/VM4 3.1.1, 3.2.2, 3.3.2, Figure 3
ultimate sliding resistance	B1/VM4 3.4.2
ultimate sliding strength	B1/VM4 3.4.4, 3.4.5
see also Chimneys, foundations	

FRR

see Fire resistance ratings

FSP

see Fire safety precautions



G

Garages	
see Outbuildings	
Gas	G3/AS1 1.4.1
Gas as an Energy Source	G11
automatic cut-offs	NZBC/G11.3.2
flued appliances	NZBC/G11.3.3
gas supply authority	NZBC/G11.3.6
isolation devices	NZBC/G11.3.4
meters	NZBC G11.3.6
location	G11/AS1 8.0
over pressure protection	G11/AS1 3.0
safe pressure ranges	
service risers	
supply system	NZBC/G11.2, G11.3.1, G11.3.5
Gas burning appliances	
installation	
seismic restraint	C/AS1 9.2.2
Gases	
see Hazardous Substances and Processe	•
Gas fuel appliances	G4/AS1 2.0, 3.0
Gas reticulation	
another Acceptable Solution	
cleaning	
	G10/AS1 1.1.3
concealed piping	
	G10/AS1 1.4.1
•	G10/AS1 1.4.3, Table 3
construction	
corrosion controldesign	
installation	
	G10/AS1 1.2.1 d)
•	
isolating valves	
materials	
pipework in ducts	G10/AS1 1.5
unventilated ducts	G10/AS1 1.5.4
ventilated ducts	G10/AS1 1.5.3
vent lines	
welded joints	G10/AS1 1.3
Geology	B1/VM4 A1.2.1 a)
Glazing NZ	BC/F2.3.3; B1/AS1 7.0; C/AS1 5.8, 6.19.11
see also Hazardous Building Materials	
concession for sprinklers	· · · · · · · · · · · · · · · · · · ·
dimensions	
fire resisting glazing	
	7.3.5, 7.3.7, 7.4, Figure 7.4, Table 7.1
human impact safety	
in external walls	
in fire congretions	
in fire separations	
in safe pathsin smoke control doors	_
in smoke separations and protected paths	
modifications to NZS 4223	
1110UIIICALIO115 LO INZO 4220	



Government agenciessee also Commercial building	
Government officessee also Commercial building	
·	G13/AS2 3.4 G13/AS2 3.4.3, 3.4.4
Ground good ground	
Ground conditions	
conditionsseasonal changes	
Group sleeping areas	C/AS1 6.6.3, 6.6.4, 6.6.7, 6.7.2 to 6.7.4
construction overflow relief	G13/AS1 Figures 5 and 7, G13/AS2 3.3, Figures 2 and 3
gradients materials overflow outlets sizing	E1/AS1 5.0 E1/AS1 5.3 E1/AS1 5.2, Table 6 E1/AS1 5.5 E1/AS1 5.1, Figures 15 and 16 E1/AS1 5.4, Table 7
internal gutters parallel hidden gutters	E2/AS1 5.2, 8.1.6, 8.3.9, 8.4.14, 8.5.10, Figures 20 and 64 E2/AS1 8.1.6.1, 8.1.6.3, 8.4.16, 8.4.16.3, Figure 52 E2/AS1 8.1.6.1, 8.4.16.1, Figure 50 E2/AS1 8.1.6.1, 8.1.6.2, 8.4.16, 8.4.16.2, Table 8, Figure 51



Н

Habitable spacesNZBC/E3.3.1, G5.2.1 (a), G5.3.1, G	i5.3.3, G6.2, G7.2; G6/AS1 1.0.2
Halls	
see Communal non-residential	
Halla of vacidance	
Halls of residence see Communal residential	
See Communa residential	
Handicapped people see People with disabilities	
·	4404 0.4.4.0.0.0.0.0.1.1.0.0.0
Handrails	/AS1 3.1.4, 3.3.3, 3.3.6 b), 3.9.8, 1 b), 1.6.1, 1.7, 5.2.1 g), 6.0, 6.0.1,
0.20.4 c) , D1/A31 1:5.2, 1:5.2	6.0.2, Figures 6 and 19
clearances	, 0
handrail profiles	
height	
horizontal extensions	
intermediate handrails	
relevant width	
slope	D1/AS1 6.0.4
Hazards to building elements	F1/VM1 2.7
Hazardous Agents on Site	F4
see also Site investigation	Г1
assessment of sites	N7RC/E1 2 1
contaminants	
Contaminants	2.6.3, Table 2
degradation of building materials	
likely effects on people	
hazardous agents F1/VM1 1.0.2 c)	
network utility operators	
remedial work	F1/VM1 2.6, Table 3
risk assessment	F1/VM1 1.0.2 c), 2.5, 2.5.4
Hazardous Building Materials	F2
see also Glazing	
asbestos	F2/AS1 2.0
brittle materials	NZBC/F2.3.3
harmful concentrations	NZBC/F2.3.1
transparent panels	NZBC/F2.3.2
Hazard category	
see Fire hazard categories	
Hazardous Substances and Processes	Ea
explosions	
food preparation and utensil washing areas	
hazardous substances associated	142DO/ G3.3.2 (b)
with building services	NZBC/G10.1, G10.2
protected ignition sources	
release of pressure	
released during fire	NZBC/C3.2 (d), C3.3.10
rendering hazardous materials harmless	NZBC/F3.3 (e)
sewers and public drains	NZBC/F3.3 (b)
signs	
surface finishes	
unauthorised access	NZBC/F3.3 (a)
Hazardous wastes	3.2, 1.4.1 b), 1.9.1, 2.1.4, 2.2.1 b),
·	2.2.4, 2.3.7, 2.4.4, 3.1.3



Health camps see Communal residential	
	. B1/AS3 1.4, 2.2, 2.2.1 to 2.2.3, C/AS1 9.5, Figure 9.3 B1/AS3 2.2, 2.2.1 to 2.2.3
Heat detectors see Fire safety precautions	
Heat transfer solid fuel appliances limiting heat transfer	
Heating see Energy Efficiency, Interior	Environment
Height see Building height or Escape he	ight
•	D1/AS1 1.4, 1.4.1, Figure 3, Table 1
Hospitalssee also Communal residential	NZBC/D1.3.4 (c) (iv); G1/AS1 Table 4
Hostels see Communal residential	
Hot dip galvanising	
Hot plates	
Hot water supply see Water supplies, hot	
Hotelssee also Communal residential	
	AS1 1.3.5, 1.3.6 b) c) e), 2.2.9 a), 3.11.6, 3.15.5, 3.15.8, 3.20.1, 6.1.1, 6.8.1, 6.14.3, 6.14.4, 6.20.1, 7.5.7, 7.9.19, 7.10.6, 7.10.7, A2.1.1 Type 5, Table 6.2; F7/AS1 1.1.2 b), 1.2.5, 1.2.6, 1.3.2; G6/AS1 1.0.2
G3.3	D1.3.3, E1.3.2, G1.3.5, G2.2, G3.2.1, G3.3.1 (a) to (d), 2 (c), G7.2, G12.3.4, G12.3.9, H1.3.2; F4/AS1 Table 1;
	1 1.0.1; G9/AS1 1.0; H1/VM1 1.1, 1.2, H1/AS1 1.0, 2.0 NZBC/A1 2.0.2, C3.3.2, C3.3.4, D1.3.2 (i), F6.2, F7.3, F8.2, G15.2; H1/VM1 1.1
	NZBC/A1 2.0.4, G8.2; H1/VM1 1.1.1 NZBC/A1 2.0.3, C3.3.2, D1.3.2 (i), F6.2, F8.2, G8.2, G15.2; H1/VM1 1.1, 1.2, H1/AS1 2.1.1
wharenui	H1/VM1 1.1.1
HVAC systems	F7/AS1 1.5.3



I

see also Water supplies	Supply
lluminance	G7/VM1 1.0; G8/VM1 1.0, G8/AS1 1.0
measurement	G8/VM1 1.0.1
minimum	G8/AS1 1.0.3
mpact insulation class (IIC)	G6/VM1 2.0
n-service history	B2/VM1 1.1
ndustrial buildings	IZBC/A1 6.0, D1.3.2 (h), D1.3.3, E3.3.1, G1.3.5, G3.2.1,
	3.3.1 (a) (b), G3.3.2 (b), G3.3.6, G8.2, G9.3.4, G12.3.9, H1.2 (a); G1/AS1 Table 1; G3/AS1 2.0.1; H1/AS1 1.0.2
	G14
	NZBC/G14.3.2 (a)
	G14/VM1 1.1.1, 1.3.2, 1.4
	G14/VM1 1.4
	NZBC/G14.3.2 (c)
	G14/VM1 2.0
drainage	G14/VM1 2.2
	G14/VM1 2.3, Table 2
	G14/VM1 2.4, Figure 2
	G14/VM1 1.5.1, 1.5.2
•	G14/VM1 1.1.1, Table 1
	G14/VM1 1.4
	G14/VM1 1.2.1 b)
	G14/VM1 1.2.1 a), G14/AS1 1.2.1, 1.2.2
disposal systems	NZBC/G14.3.1
hazardous wastes	
see Hazardous wastes	
materials used in construction	G14/VM1 1.5.1
odours	NZBC/G14.3.1 (c), G14.3.2 (f)
resource consents	NZBC/G14.3.2 (d)
safety facilities	G14/VM1 3.1.4
separate waste systems	G14/VM1 1.7.1
storage	G14/VM1 1.1.1, 1.2.1 c), 1.3.2
containers	NZBC/G14.3.1
location of facilities	G14/VM1 1.4
tanks	
<i>see</i> Tanks	
treatment	G14/VM1 1.1.1, 1.2, 1.2.2, 1.3.2, Figure 1, Table 1
location of facilities	G14/VM1 1.4
	G14/VM1 1.2, Table 1
unauthorised access	NZBC/G14.3.2 (g); G14/VM1 1.9
vehicle access	NZBC/G14.3.2 (b)
nspection chambers	
see Maintenance access to drai	ns
nspection points	
see Maintenance access to drai	ns
nsulation see Fire resistance ratings	
_	
ntegrity see Fire resistance ratings	
ntellectually handicapped persons see People with disabilities	
ntended Life see Durability	



G2.3.1, G3.2.1, G3.3.1 (a), G3.3.6, G5.2.1 (b), G9.2, G11.1 (c), G11.2, G12.3.5, G15.2 Interior EnvironmentG5 see also Activity space G5/AS1 1.0, Tables 1 and 2 Interior lighting Intermediate floors see Floors Internal Moisture E3 containment...... **E3/AS1** 2.0.1, 2.1, Figure 1 thermal break E3/AS1 1.1.4 d) watersplash E3/AS1 3.0 lining materials **E3/AS1** 3.1, Figure 1 showers **E3/AS1** 3.3.1 to 3.3.5, Figures 4 and 5 windows **E3/AS1** 1.3.1



JKL

- 1	
·	

Jetties

see Ancillary buildings

Κ

.

see also Stairs and ladders tread width D1/AS1 5 4 1 b)



	G2; NZBC/G2.2, G2.3.1 to G2.3.4; G2/AS1 1.0
	G2/AS1 1.1.2
laundry tubs E	3/AS1 3.2.2, Figure 3; G2/AS1 1.0.1 a), 1.0.2, 1.1.1;
alkamaki ya anlukian	G13/AS1 3.3.2, Figure 2, Table 2 G2/AS1 1.0.3
	G2/AS1 1.0.2 a)
	G2/AS1 1.3.1, Table 1
	NZBC/E3.3.2
	NZBC/G2.3.4 ; G2/AS1 1.2.2, Figure 2
washing machines	G2/AS1 1.0.1 b), 1.1.2
water supply	G2/AS1 1.1.1, 1.1.2
Lavatories see Personal Hygiene	
	G12/AS1 6.14.3, HB CS 9
Lovel access routes	D1/AS1 2.0
	D1/AS1 2.3
•	
	- · · · · · · · · · · · · · · · · · · ·
Libraries see Communal non-residential	
	1 3.12.3, 6.16.1, 6.16.4 b) c), 6.23.3 b) ; D1/AS1 12.0
see also Mechanical Installations	C/AS1 6.19.13, Table 6.1
	C/AS1 3.12.3 e), 6.16.4 c)
lift shafts	3//10/ 0.12.0 0// 0.10.1 0/
see Protected shafts	
1.1.	
Light see Artificial Light, Natural Light	Lighting for Emergency
Light switches	G9/AS1 2.0.1 a) b)
Lighting of access routes	D1/AS1 1.5.4, 1.8
	F6; NZBC/H1.3.5
	NZBC/F8.3.3 (b); F6/AS1 1.1.3
	NZBC/F6.3.1, G8.3 F6/AS1 1.1.6
•	F6/VM1 1.1
	F6/AS1 1.1.2
	F6/AS1 1.1.1
	F6/AS1 1.1.5
Limited area atriums	
Limited area intermediate floors	
see Floors	
Liquid fuel see Piped Services, Hazardous S	ubstances and Processes
Loadings	
see Design, loadings	
Loads see Structure , loads	
Location of heat and smoke detectors	F7/AS1 1.3
Location of neat and smoke detectors	F//AST 1.3
Low-risk areas	F4/AS1 1.2.2



M

MaintenanceNZBC/B2.3.1,	D2.3.1 (f), D2.3.4 (c), E1.3.3 (d), E2/AS1 2.5, G10.3.6, G11.3.4, G12.3.6 (d) (e), G13.3.1 (d), G13.3.2 (d), G14.3.2 (h), G15.3.2 (c);
normal	
regular maintenance	E2/AS1 2.5.1
scheduled	B2/AS1 2.2
access chambers	E1/AS1 3.7.1, 3.7.2 b), 3.7.4, 3.7.5, Figure 12; G13/AS2 Figure 12
access points	E1/AS1 3.7, 3.7.3, 3.7.7, G13/AS2 5.7, Figures 9 to 12
	E1/AS1 3.7.1, 3.7.2 b), 3.7.4, 3.7.5, Figure 11;
opooden ondingere	G13/AS2 Figure 11
inspection points	E1/AS1 3.7.1, 3.7.2 b), G13/AS2 5.7, Figure 9
	G13/AS2 5.7.4
	S1 3.7.1, 3.7.2 a), Figure 10; G13/AS2 5.7.4 f), Figure 10
Marae	
see Housing, group dwellings	
Masonry	
see Design, masonry	
masonry buildings	B1/AS3 1.1.1
Masonry tiles	E2/AS1 8.2
•	E2/AS1 8.2.5
	E2/AS1 8.2.6, Figures 23-28
· ·	E2/AS1 8.2.4, Tables 20-22
	E2/AS1 8.2.2
installation	E2/AS1 8.2.3, Tables 10 and 23
materials	E2/AS1 8.2.1
tile profiles	E2/AS1 8.2.1.1
penetrations	E2/AS1 8.2.7, Figures 29-31
Masonry veneer	E2/AS1 9.1.3.2, 9.2, Table 18
bottom of masonry veneer	E2/AS1 9.2.7
concrete bricks	E2/AS1 9.2.5, Figure 73
	E2/AS1 9.2.4
clay bricks	E2/AS1 9.2.4.1, Figure 73
general	E2/AS1 9.2.2
	E2/AS1 9.2.3, Table 23
	E2/AS1 9.2.1
, ,	E2/AS1 9.2.8
windows and doors	E2/AS1 9.2.6
Means of Escape	
see Escape routes, Evacuation ti	me, Exitways, Final exits,
Fire hazard category, Open paths	s, Safe paths, Safe place, Travel distance
	ss
	NZBC/D2.3.1 (e)
0 /	NZBC/D2.3.3
	NZBC/D1.3.3 (e)
	.NZBC/D1.3.1 (c), D1.3.2 (c), D1.3.4 (c); D1/AS1 12.0
	NZBC/D2.3.2 (c)
	NZBC/D2.3.1 (a)
, , ,	equipment
	NZBC/D2.3.5 SNZBC/D2.1 (b)
servicing mechanical installation	3INZDG/DZ.I (D)



Mechanical ventilation

see Ventilation

Membrane cappings E2/AS1 6.5

Metal cappings E2/AS1 6.4, 7.4.4, 9.9.10.1, Figure 9

 Membrane roofs and decks
 E2/AS1 8.5

 control joints
 E2/AS1 8.5.7

 general
 E2/AS1 8.5.2

 gutters
 E2/AS1 8.5.10, Figure 64

 installation
 E2/AS1 8.5.5

 butyl and EPDM
 E2/AS1 8.5.5.2

 plywood
 E2/AS1 8.5.5.1

 junctions
 E2/AS1 8.5.7, Figures 57, 58 and 61-63

 with walls
 E2/AS1 8.5.8.1, Figure 62

 limitations
 E2/AS1 8.5.9, Figures 59 and 60

 handrails
 E2/AS1 8.5.9, Figures 59 and 60

 plywood substrates
 E2/AS1 8.5.3

 butyl and EPDM
 E2/AS1 8.5.3

Mixing devices

see Water supply, hot

Moisture

see External Moisture, Internal Moisture, Surface Water

see also Communal residential

see also Commercial buildings

Museums

see Communal non-residential



Ν

Natural Light	G7
awareness of the outside environment	NZBC/G7.1, G7.2, G7.3.2
minimum illuminance	NZBC/G7.3.1
Natural ventilation see Ventilation	
Network utility operators NZBC/G	11.3.6, G13.3.3, G15.3.3, H1.1; F1/VM1 2.1.1 f) G14/AS1 1.2.1, 1.2.2
No-sky line condition	G7/AS1 1.0.3, Figure 3
Non-potable water supply see Water supply	
Non-return valves	G12/AS1 Figures 7 to 10, Table 6
Notional boundary	S1 7.3.13 to 7.3.15, 7.5.3 Step 1, 7.7.1, Table 7.4
Nurses' or Nursing homes see Communal residential	



0

ObstructionsNZBC/D1.3.2 (b); D1/AS1 1.5dangerous projectionsD1/AS1 1.5.4, Figure 6isolated columnsD1/AS1 1.5.5, Figure 7major projectionsD1/AS1 1.5.3, Figure 5minor projectionsD1/AS1 1.5.1, 1.5.2, Figure 4
Occupants
3.16.3 c), 3.17.9 a) Step 1 and Step 2, 4.5.15, 6.3.1, 6.3.2, 6.4.1, 6.20.6 a), 6.20.7 a), 6.20.19, 6.21.5 c), 6.22.2 c) d) f), B4.1.1, Tables 3.1 and 4.1 Occupied spaces
Odours see Foul Water, Industrial Liquid Waste, Solid Waste
Offices see Commercial buildings
Oil fired appliances installation
Old people's homes
see also Communal residential buildings
Open fires
Open paths
Opening windows
Other property
Outbuildings
Outdoor air supply
Ovens see Food Preparation and Prevention of Contamination, cooking
Overflow E3/AS1 2.0 containment E3/AS1 2.0.1, 2.1, Figure 1 floor waste E3/AS1 2.0.1, 2.2



Ρ

Parapets	E2/AS1 6.0, 9.3.9, 9.4.8, 9.5.5, 9.7.8, 9.8.7, 9.9.10, 9.6.9.8 C/AS1 6.12.7 b), 7.1.2 e), 7.8.1 b), 7.8.2, 7.9.2 b), Figure 7.1
capping materials	E2/AS1 6.3
	E2/AS1 6.2
	E2/AS1 6.1
	E2/AS1 6.6
· · · -	E2/AS1 6.5
parapet-to-waii junction	LZ/AGT 0.4.1, Figures 11-13
Pedestrians	
see Access Routes	
Penetrations	C/AS1 3.12.3 e), 6.12.4, 6.12.9 d), 6.16.4 e), 6.17.1, 6.17.4, 6.17.5, 6.17.7, 6.18.6 c), 6.18.9, 6.20.13 a)
People with disabilities	NZBC/F8.3.4; C/AS1 2.4, 3.15.1 e), 3.17.1 e); D1/AS1 1.1.4,
	Table 9; E3/AS1 3.3.2; F7/AS1 2.1.2 d) f); F8/AS1 5.0;
	G1/AS1 1.1.2, 1.2.2, 4.0, 4.1, 4.2, Figures 5 to 9, Tables 1 and 2; G2/AS1 1.2.2, Figure 2; G3/AS1 1.5.2;
	G5/AS1 3.0; G9/AS1 2.0; G12/AS1 8.0
accessible route identificati	on
	G1/AS1 4.1.1
electrical installations	NZBC/G9.3.4
· ,	NZBC/G5.3.5, G5.3.6
	ng facilities
	ns
mechanical installations for	·
see Mechanical Insta	
personal hygiene facilities	NZBC/G1.3.5
provision of laundering facil	itiesNZBC/G2.3.4
·	
water supply	NZBC/G12.3.9
Pergolas	
see Decks and Pergolas	
Personal Hygiene	G1; NZBC/G13.1 (a)
see also Sanitary fixtures	
	NZBC/G1.1 (b)
	NZBC/D1.3.3 (c), G1.3.5
	NZBC/G1.3.4
· · · · · · · · · · · · · · · · · · ·	ystem
	NZBC/G1.3.5; G1/AS1 1.1.2, 1.2.2, 4.0, 4.1, 4.2
lobbies	G1/AS1 6.3
	G1/AS1 1.1.5
•	
water-borne disposal system	MZBC/G1.3.2 (g), G13.1 (b)
Piles	

see Foundations



Piped Services	
extreme temperatures	
gas pipes	NZBC/G10.3.2, G10.3
hazardous substances	NZBC/G10.1, G10.2
identification of piping systems	NZBC/G10.3.4
isolating devices	NZBC/G10.3.6
piping systems	NZBC/G10.3.1
preventing sound transmission	
protection against corrosion	NZBC/G10.3.3
Pipes	
see also Discharge pipes, Discharge stacks, Vent	t pipes
installation	G11/AS1 4.0
jointing methods	G13/AS1 6.1.1
materials	G13/AS1 2.1.1, Table 1
sizing	G11/AS1 1.0
pressure ranges	G11/AS1 1.1
flow velocities	G11/AS1 1.4
pressures above 1.5 kPa	G11/AS1 1.3
pressures below 1.5 kPa	G11/AS1 1.2
supports	G13/AS1 6.2.1, Table 7
thermal movement	G13/AS1 6.3
watertightness	G13/AS1 7.0
Placement of detectors	F7/AS1 1.4
Places of assembly	D1/AS1 8.0
see also Communal non-residential	, , , , , , , , , , , , , , , , , , , ,
Plumbing systems	
see Foul Water	
Plywood sheet	E2/AS1 9.8
corners	E2/AS1 9.8.4
external	E2/AS1 9.8.4.1, Figure 122
Internal	E2/AS1 9.8.4.2, Figure 123
finishes	E2/AS1 9.8.9
flashing material	E2/AS1 9.8.5, Tables 20-22
installation	E2/AS1 9.8.3, Table 23
fixings	E2/AS1 9.8.3.1, Table 24
joints	E2/AS1 9.8.3.2, Figures 118-121
limitations	E2/AS1 9.8.1
materials	E2/AS1 9.8.2, Figures 118 and 119
parapets and enclosed balustrades	E2/AS1 9.8.7
soffit details	E2/AS1 9.8.6, Figure 114
windows and doors	E2/AS1 9.8.8
windows: direct fixed	E2/AS1 9.8.8.1, Figure 115
windows: with cavity	E2/AS1 9.8.8.2, Figure 116
Pools	
see Swimming pools	
Positive and negative pressure	G4/AS1 1.3.3
Potable water supply	

199

see Water Supplies



Pressed metal tiles	E2/AS1 8.3
	E2/AS1 8.3.9, Figure 8
fascias	E2/AS1 8.3.9, Figure 8
fixings	E2/AS1 8.3.7
•	E2/AS1 8.3.8, Table 7, Figures 34-37
	E2/AS1 8.3.9, Figure 8
•	E2/AS1 8.3.2
	E2/AS1 8.3.1, Figure 37
	E2/AS1 8.3.4
	E2/AS1 8.3.4.3
	E2/AS1 8.3.4.1, Table 20
	E2/AS1 8.3.4.2
	E2/AS1 8.3.10, Figures 53 and 55
· ·	E2/AS1 8.3.5, Figure 32
· ·	E2/AS1 8.3.3
	E2/AS1 8.3.6, Table 23
,	
Pressure limiting valves	G12/AS1 5.3.2, 6.2.1 c), Figure 8, Table 6
Pressure reducing valves	G12/AS1 5.3.2, 6.2.1 b), Figures 7 and 9, Table 6
Pressure regulators	
Pressure relief valves	
relief valve drains	G12/AS1 6.7, Figures 12 and 13
Pressurisation of safe paths	
see Fire safety precautions	
Principal entrance	D1/AS1 1.1
see Communal residential	
Privacy see Personal Hygiene Privies	
see Personal Hygiene	
see Personal Hygiene Privies see Personal Hygiene, privies	E2/AS1 8.4
see Personal Hygiene Privies see Personal Hygiene, privies Profiled metal roof claddings	E2/AS1 8.4 E2/AS1 8.4.10. Table 16. Figure 39
see Personal Hygiene Privies see Personal Hygiene, privies Profiled metal roof claddingsallowance for expansion	
see Personal Hygiene Privies see Personal Hygiene, privies Profiled metal roof claddings	E2/AS1 8.4.10, Table 16, Figure 39
see Personal Hygiene Privies see Personal Hygiene, privies Profiled metal roof claddings	E2/AS1 8.4.10, Table 16, Figure 39 al profiles E2/AS1 8.4.8, Figure 39 E2/AS1 8.4.8.1, Tables 14 and 15
see Personal Hygiene Privies see Personal Hygiene, privies Profiled metal roof claddings	E2/AS1 8.4.10, Table 16, Figure 39 al profiles E2/AS1 8.4.8, Figure 39
see Personal Hygiene Privies see Personal Hygiene, privies Profiled metal roof claddings	E2/AS1 8.4.10, Table 16, Figure 39 al profiles
see Personal Hygiene Privies see Personal Hygiene, privies Profiled metal roof claddings	E2/AS1 8.4.10, Table 16, Figure 39 al profiles E2/AS1 8.4.8, Figure 39 E2/AS1 8.4.8.1, Tables 14 and 15 E2/AS1 8.4.9, Figure 40
see Personal Hygiene Privies see Personal Hygiene, privies Profiled metal roof claddings	E2/AS1 8.4.10, Table 16, Figure 39 al profiles
see Personal Hygiene Privies see Personal Hygiene, privies Profiled metal roof claddings	E2/AS1 8.4.10, Table 16, Figure 39 al profiles
see Personal Hygiene Privies see Personal Hygiene, privies Profiled metal roof claddings	E2/AS1 8.4.10, Table 16, Figure 39 al profiles
see Personal Hygiene Privies see Personal Hygiene, privies Profiled metal roof claddings	E2/AS1 8.4.10, Table 16, Figure 39 al profiles
see Personal Hygiene Privies see Personal Hygiene, privies Profiled metal roof claddings	E2/AS1 8.4.10, Table 16, Figure 39 al profiles
see Personal Hygiene Privies see Personal Hygiene, privies Profiled metal roof claddings	E2/AS1 8.4.10, Table 16, Figure 39 al profiles
see Personal Hygiene Privies see Personal Hygiene, privies Profiled metal roof claddings	E2/AS1 8.4.10, Table 16, Figure 39 E2/AS1 8.4.8, Figure 39 E2/AS1 8.4.8.1, Tables 14 and 15 E2/AS1 8.4.9, Figure 40 E2/AS1 8.4.12, Figures 43-48 E2/AS1 8.4.11, Tables 21 and 22, Figures 41 and 42 E2/AS1 8.4.11.1, Table 21, Figure 6 E2/AS1 8.4.16.3, Figure 52 E2/AS1 8.4.16, 8.4.16.3, Figure 52 E2/AS1 8.4.3 E2/AS1 8.4.3 E2/AS1 8.4.3
see Personal Hygiene Privies see Personal Hygiene, privies Profiled metal roof claddings	E2/AS1 8.4.10, Table 16, Figure 39 E2/AS1 8.4.8, Figure 39 E2/AS1 8.4.8.1, Tables 14 and 15 E2/AS1 8.4.9, Figure 40 E2/AS1 8.4.12, Figures 43-48 E2/AS1 8.4.11, Tables 21 and 22, Figures 41 and 42 E2/AS1 8.4.11.1, Table 21, Figure 6 E2/AS1 8.4.16.3, Figure 52 E2/AS1 8.4.16, 8.4.16.3, Figure 52 E2/AS1 8.4.3 E2/AS1 8.4.3 E2/AS1 8.4.3 E2/AS1 8.4.3
see Personal Hygiene Privies see Personal Hygiene, privies Profiled metal roof claddings allowance for expansion fixings: corrugated and trapezoida requirements fixings: trough profile requirements flashing details flashing requirements fixing flashings. general internal gutters limitations materials aluminium choice of metal steel	E2/AS1 8.4.10, Table 16, Figure 39 E2/AS1 8.4.8, Figure 39 E2/AS1 8.4.8, Tables 14 and 15 E2/AS1 8.4.9, Figure 40 E2/AS1 8.4.12, Figures 43-48 E2/AS1 8.4.11, Tables 21 and 22, Figures 41 and 42 E2/AS1 8.4.11, Tables 21 and 22, Figures 41 and 42 E2/AS1 8.4.11, Table 21, Figure 6 E2/AS1 8.4.16, 8.4.16.3, Figure 52 E2/AS1 8.4.3 E2/AS1 8.4.3 E2/AS1 8.4.3 E2/AS1 8.4.3 E2/AS1 8.4.3.3
see Personal Hygiene Privies see Personal Hygiene, privies Profiled metal roof claddings	E2/AS1 8.4.10, Table 16, Figure 39 E2/AS1 8.4.8, Figure 39 E2/AS1 8.4.8.1, Tables 14 and 15 E2/AS1 8.4.9, Figure 40 E2/AS1 8.4.12, Figures 43-48 E2/AS1 8.4.11, Tables 21 and 22, Figures 41 and 42 E2/AS1 8.4.11, Tables 21 and 22, Figures 41 and 42 E2/AS1 8.4.11, Table 21, Figure 6 E2/AS1 8.4.6, 8.4.16.3, Figure 52 E2/AS1 8.4.3 E2/AS1 8.4.3 E2/AS1 8.4.3 E2/AS1 8.4.3 E2/AS1 8.4.3.1, Table 20 E2/AS1 8.4.3.2 E2/AS1 8.4.3.5
see Personal Hygiene Privies see Personal Hygiene, privies Profiled metal roof claddings allowance for expansion fixings: corrugated and trapezoida requirements fixings: trough profile requirements flashing details flashing requirements fixing flashings. general	E2/AS1 8.4.10, Table 16, Figure 39 E2/AS1 8.4.8, Figure 39 E2/AS1 8.4.8, Tables 14 and 15 E2/AS1 8.4.9, Figure 40 E2/AS1 8.4.12, Figures 43-48 E2/AS1 8.4.11, Tables 21 and 22, Figures 41 and 42 E2/AS1 8.4.11, Tables 21 and 22, Figures 41 and 42 E2/AS1 8.4.11, Table 21, Figure 6 E2/AS1 8.4.16, 8.4.16.3, Figure 52 E2/AS1 8.4.3 E2/AS1 8.4.3 E2/AS1 8.4.3 E2/AS1 8.4.3 E2/AS1 8.4.3.1, Table 20 E2/AS1 8.4.3.2 E2/AS1 8.4.3.1, Table 20 E2/AS1 8.4.3.3
see Personal Hygiene Privies see Personal Hygiene, privies Profiled metal roof claddings allowance for expansion fixings: corrugated and trapezoida requirements fixings: trough profile requirements flashing details flashing requirements fixing flashings. general	E2/AS1 8.4.10, Table 16, Figure 39 E2/AS1 8.4.8, Figure 39 E2/AS1 8.4.8, Tables 14 and 15 E2/AS1 8.4.9, Figure 40 E2/AS1 8.4.12, Figures 43-48 E2/AS1 8.4.11, Tables 21 and 22, Figures 41 and 42 E2/AS1 8.4.11, Tables 21 and 22, Figures 41 and 42 E2/AS1 8.4.11, Table 21, Figure 6 E2/AS1 8.4.16, 8.4.16.3, Figure 52 E2/AS1 8.4.3 E2/AS1 8.4.3 E2/AS1 8.4.3 E2/AS1 8.4.3 E2/AS1 8.4.3 E2/AS1 8.4.3.1, Table 20 E2/AS1 8.4.3.2 E2/AS1 8.4.3.2 E2/AS1 8.4.3.3 E2/AS1 8.4.3.3 E2/AS1 8.4.3.3
see Personal Hygiene Privies see Personal Hygiene, privies Profiled metal roof claddings allowance for expansion fixings: corrugated and trapezoida requirements fixings: trough profile requirements flashing details flashing requirements fixing flashings. general	E2/AS1 8.4.10, Table 16, Figure 39 E2/AS1 8.4.8, Figure 39 E2/AS1 8.4.8, Figure 39 E2/AS1 8.4.8, Figure 40 E2/AS1 8.4.9, Figure 40 E2/AS1 8.4.12, Figures 43-48 E2/AS1 8.4.11, Tables 21 and 22, Figures 41 and 42 E2/AS1 8.4.11, Tables 21 and 22, Figures 41 and 42 E2/AS1 8.4.11, Table 21, Figure 6 E2/AS1 8.4.3 E2/AS1 8.4.6, 8.4.16.3, Figure 52 E2/AS1 8.4.3 E2/AS1 8.4.3 E2/AS1 8.4.3 E2/AS1 8.4.3 E2/AS1 8.4.3.1, Table 20 E2/AS1 8.4.3.2 E2/AS1 8.4.16, 8.4.16.1, Figure 50 E2/AS1 8.4.15 E2/AS1 8.4.4, Figure 38 E2/AS1 8.4.4, Figure 38 E2/AS1 8.4.4, Figure 38
see Personal Hygiene Privies see Personal Hygiene, privies Profiled metal roof claddings allowance for expansion fixings: corrugated and trapezoida requirements fixings: trough profile requirements flashing details flashing requirements fixing flashings. general	E2/AS1 8.4.10, Table 16, Figure 39 E2/AS1 8.4.8, Figure 39 E2/AS1 8.4.8, Tables 14 and 15 E2/AS1 8.4.9, Figure 40 E2/AS1 8.4.12, Figures 43-48 E2/AS1 8.4.11, Tables 21 and 22, Figures 41 and 42 E2/AS1 8.4.11, Tables 21 and 22, Figures 41 and 42 E2/AS1 8.4.11, Table 21, Figure 6 E2/AS1 8.4.16, 8.4.16.3, Figure 52 E2/AS1 8.4.3 E2/AS1 8.4.3 E2/AS1 8.4.3 E2/AS1 8.4.3 E2/AS1 8.4.3.1, Table 20 E2/AS1 8.4.3.2 E2/AS1 8.4.3.4 E2/AS1 8.4.3.5 E2/AS1 8.4.3.5 E2/AS1 8.4.3.5 E2/AS1 8.4.3.6 E2/AS1 8.4.3.6 E2/AS1 8.4.3.7 E2/AS1 8.4.3.7 E2/AS1 8.4.3.8 E2/AS1 8.4.3.9 E2/AS1 8.4.3.9 E2/AS1 8.4.3.9
see Personal Hygiene Privies see Personal Hygiene, privies Profiled metal roof claddings allowance for expansion fixings: corrugated and trapezoida requirements fixings: trough profile requirements flashing details flashing requirements fixing flashings. general	E2/AS1 8.4.10, Table 16, Figure 39 E2/AS1 8.4.8, Figure 39 E2/AS1 8.4.8, Tables 14 and 15 E2/AS1 8.4.9, Figure 40 E2/AS1 8.4.12, Figures 43-48 E2/AS1 8.4.11, Tables 21 and 22, Figures 41 and 42 E2/AS1 8.4.11, Tables 21 and 22, Figures 41 and 42 E2/AS1 8.4.11, Table 21, Figure 6 E2/AS1 8.4.16, 8.4.16.3, Figure 52 E2/AS1 8.4.3 E2/AS1 8.4.3 E2/AS1 8.4.3 E2/AS1 8.4.3. E2/AS1 8.4.3.1, Table 20 E2/AS1 8.4.3.2 E2/AS1 8.4.3.4 E2/AS1 8.4.3.5 E2/AS1 8.4.3.5 E2/AS1 8.4.3.6 E2/AS1 8.4.3.6 E2/AS1 8.4.3.7 F2/AS1 8.4.3.7 F2/AS1 8.4.3.8 E2/AS1 8.4.3.9 E2/AS1 8.4.3.9 E2/AS1 8.4.3, Figure 50 E2/AS1 8.4.4, Figure 38 E2/AS1 8.4.4, Figure 38 E2/AS1 8.4.4, Figure 38 E2/AS1 8.4.5, Figure 49
see Personal Hygiene Privies see Personal Hygiene, privies Profiled metal roof claddings allowance for expansion fixings: corrugated and trapezoida requirements fixings: trough profile requirements flashing details flashing requirements fixing flashings general internal gutters limitations materials aluminium choice of metal steel parallel hidden gutters profile closure profiles roof penetrations roof pitch stopends structure	E2/AS1 8.4.10, Table 16, Figure 39 E2/AS1 8.4.8, Figure 39 E2/AS1 8.4.8, Tables 14 and 15 E2/AS1 8.4.9, Figure 40 E2/AS1 8.4.12, Figures 43-48 E2/AS1 8.4.11, Tables 21 and 22, Figures 41 and 42 E2/AS1 8.4.11, Tables 21 and 22, Figures 41 and 42 E2/AS1 8.4.11, Table 21, Figure 6 E2/AS1 8.4.16, 8.4.16.3, Figure 52 E2/AS1 8.4.3 E2/AS1 8.4.3 E2/AS1 8.4.3 E2/AS1 8.4.3 E2/AS1 8.4.3.1, Table 20 E2/AS1 8.4.3.2 E2/AS1 8.4.16, 8.4.16.1, Figure 50 E2/AS1 8.4.15 E2/AS1 8.4.4, Figure 38 E2/AS1 8.4.4, Figure 38 E2/AS1 8.4.17, Table 17, Figures 21 and 53-55 E2/AS1 8.4.5 E2/AS1 8.4.13, Figure 49 E2/AS1 8.4.6, Tables 11, 12 and 13
see Personal Hygiene Privies see Personal Hygiene, privies Profiled metal roof claddings	E2/AS1 8.4.10, Table 16, Figure 39 E2/AS1 8.4.8, Figure 39 E2/AS1 8.4.8, Figure 39 E2/AS1 8.4.9, Figure 40 E2/AS1 8.4.12, Figures 43-48 E2/AS1 8.4.11, Tables 21 and 22, Figures 41 and 42 E2/AS1 8.4.11, Tables 21 and 22, Figures 41 and 42 E2/AS1 8.4.11, Table 21, Figure 6 E2/AS1 8.4.16.3, Figure 52 E2/AS1 8.4.16.3, Figure 52 E2/AS1 8.4.3 E2/AS1 8.4.3 E2/AS1 8.4.3 E2/AS1 8.4.3 E2/AS1 8.4.3 E2/AS1 8.4.3, Table 20 E2/AS1 8.4.16.1, Figure 50 E2/AS1 8.4.16.1, Figure 38 E2/AS1 8.4.17, Table 17, Figures 21 and 53-55 E2/AS1 8.4.13, Figure 49 E2/AS1 8.4.13, Figure 49 E2/AS1 8.4.13, Figure 49 E2/AS1 8.4.6, Tables 11, 12 and 13 E2/AS1 8.4.14
see Personal Hygiene Privies see Personal Hygiene, privies Profiled metal roof claddings allowance for expansion fixings: corrugated and trapezoida requirements fixings: trough profile requirements flashing details flashing requirements fixing flashings. general	E2/AS1 8.4.10, Table 16, Figure 39 E2/AS1 8.4.8, Figure 39 E2/AS1 8.4.8, Tables 14 and 15 E2/AS1 8.4.9, Figure 40 E2/AS1 8.4.12, Figures 43-48 E2/AS1 8.4.11, Tables 21 and 22, Figures 41 and 42 E2/AS1 8.4.11, Tables 21 and 22, Figures 41 and 42 E2/AS1 8.4.11, Table 21, Figure 6 E2/AS1 8.4.16, 8.4.16.3, Figure 52 E2/AS1 8.4.3 E2/AS1 8.4.3 E2/AS1 8.4.3 E2/AS1 8.4.3 E2/AS1 8.4.3.1, Table 20 E2/AS1 8.4.3.2 E2/AS1 8.4.16, 8.4.16.1, Figure 50 E2/AS1 8.4.15 E2/AS1 8.4.4, Figure 38 E2/AS1 8.4.4, Figure 38 E2/AS1 8.4.17, Table 17, Figures 21 and 53-55 E2/AS1 8.4.5 E2/AS1 8.4.13, Figure 49 E2/AS1 8.4.6, Tables 11, 12 and 13



	E2/AS1 9.6, Table 3
(horizontal and vertical)	F2/AC4 0.00 Table 20 Figure 20
•	E2/AS1 9.6.6, Table 20, Figure 39
	E2/AS1 9.6.7, Figures 5 and 6, Table 21
<u> </u>	E2/AS1 9.6.2 E2/AS1 9.6.9
<u> </u>	E2/AS1 9.6.9.4, Figure 97 E2/AS1 9.6.9.5, Figure 98
	E2/AS1 9.6.9.5, Figure 98 E2/AS1 9.6.9.2, Table 23
•	E2/AS1 9.6.9.3, Figure 96
	E2/AS1 9.6.9.3, Figure 90 E2/AS1 9.6.9.1, Table 23
	E2/AS1 9.6.9.8, Figures 101 and 102
· · ·	E2/AS1 9.6.9.6, Figures 53 and 69
	E2/AS1 9.6.9.7, Figures 99 and 100
	E2/AS1 9.6.3, Figure 38
	E2/AS1 9.6.4
	E2/AS1 9.6.3
	E2/AS1 9.6.3.3
	E2/AS1 9.6.3.1, Table 20
	E2/AS1 9.6.3.2
	E2/AS1 9.6.5, Figure 38
•	E2/AS1 9.6.8
·	E2/AS1 9.6.8.2, Figure 92
<u> </u>	E2/AS1 9.6.8.3, Figure 93
3	E2/AS1 9.6.8.4, Figure 94
	E2/AS1 9.6.8.1, Table 23
	E2/AS1 9.6.8.5, Figures 53 and 69
•	E2/AS1 9.6.8.6, Figures 95 and 100
Protected paths	
see Escape routes	
Protected shafts	C/AS1 6 10 4 a) 6 12 4 6 16 Figure 6 8
Destruction other agencytic	5,7.6.1 6.16.1 d.,, 6.12.1, 6.16, 1 igalo 6.6
Protecting other property see Spread of Fire, Internal Moisture, W	
9 , , ,	ater Supplies
see Spread of Fire, Internal Moisture, W Protection of gas supply	ater Supplies
See Spread of Fire, Internal Moisture, W Protection of gas supply contamination	ater Supplies
see Spread of Fire, Internal Moisture, W Protection of gas supply contamination low pressures	ater Supplies
Protection of water supplies	ater Supplies
Protection of water supplies	ater Supplies
see Spread of Fire, Internal Moisture, W Protection of gas supply contamination low pressures Protection of water supplies air gaps backflow prevention devices	G11/AS1 7.0 G11/AS1 7.1 G11/AS1 7.2 G12/AS1 3.4 G12/AS1 3.5 G12/AS1 3.6
see Spread of Fire, Internal Moisture, W Protection of gas supply contamination low pressures Protection of water supplies air gaps backflow prevention devices atmospheric vacuum breakers	G11/AS1 7.0 G11/AS1 7.1 G11/AS1 7.2 G12/AS1 3.4 G12/AS1 3.5 G12/AS1 3.6 G12/AS1 3.6 G12/AS1 3.6
see Spread of Fire, Internal Moisture, W Protection of gas supply contamination low pressures Protection of water supplies air gaps backflow prevention devices atmospheric vacuum breakers double check valves	G11/AS1 7.0 G11/AS1 7.1 G11/AS1 7.2 G12/AS1 3.4 G12/AS1 3.5 G12/AS1 3.6 G12/AS1 3.6.2 d) 3.6.4 d), 3.7.1, Table 2 G12/AS1 3.6.2 b), 3.7.2, Table 2
see Spread of Fire, Internal Moisture, W Protection of gas supply contamination low pressures Protection of water supplies air gaps backflow prevention devices atmospheric vacuum breakers double check valves pressure vacuum breakers	G11/AS1 7.0 G11/AS1 7.1 G11/AS1 7.2 G12/AS1 3.4 G12/AS1 3.5 G12/AS1 3.6 G12/AS1 3.6.2 d) 3.6.4 d), 3.7.1, Table 2 G12/AS1 3.6.2 b), 3.7.2, Table 2 G12/AS1 3.6.2 c), 3.6.4 c), 3.7.1, Table 2
see Spread of Fire, Internal Moisture, W Protection of gas supply contamination low pressures Protection of water supplies air gaps backflow prevention devices atmospheric vacuum breakers double check valves pressure vacuum breakers reduced pressure zone devices	G11/AS1 7.0 G11/AS1 7.1 G11/AS1 7.2 G11/AS1 3.4 G12/AS1 3.5 G12/AS1 3.6 G12/AS1 3.6.2 d) 3.6.4 d), 3.7.1, Table 2 G12/AS1 3.6.2 b), 3.7.2, Table 2 G12/AS1 3.6.2 c), 3.6.4 c), 3.7.1, Table 2 G12/AS1 3.6.2 a), 3.6.4 a), 3.7.2, Table 2
see Spread of Fire, Internal Moisture, W Protection of gas supply contamination low pressures Protection of water supplies air gaps backflow prevention devices atmospheric vacuum breakers double check valves pressure vacuum breakers reduced pressure zone devices cross connections	G11/AS1 7.0 G11/AS1 7.1 G11/AS1 7.1 G11/AS1 7.2 G12/AS1 3.4 G12/AS1 3.5 G12/AS1 3.6 G12/AS1 3.6.2 d) 3.6.4 d), 3.7.1, Table 2 G12/AS1 3.6.2 b), 3.7.2, Table 2 G12/AS1 3.6.2 c), 3.6.4 c), 3.7.1, Table 2 G12/AS1 3.6.2 a), 3.6.4 a), 3.7.2, Table 2
see Spread of Fire, Internal Moisture, W Protection of gas supply contamination low pressures Protection of water supplies air gaps backflow prevention devices atmospheric vacuum breakers double check valves pressure vacuum breakers reduced pressure zone devices cross connections hazard	G11/AS1 7.0 G11/AS1 7.1 G11/AS1 7.2 G12/AS1 3.4 G12/AS1 3.5 G12/AS1 3.6 G12/AS1 3.6.2 d) 3.6.4 d), 3.7.1, Table 2 G12/AS1 3.6.2 b), 3.7.2, Table 2 G12/AS1 3.6.2 c), 3.6.4 c), 3.7.1, Table 2 G12/AS1 3.6.2 a), 3.6.4 a), 3.7.2, Table 2 G12/AS1 3.6.2 a), 3.6.4 a), 3.7.2, Table 2 G12/AS1 3.6.3 a), 3.6.4 a), 3.7.2, Table 2 G12/AS1 3.6.3 a), 3.6.4 a), 3.7.2, Table 2 G12/AS1 3.1, 3.2 G12/AS1 3.3
see Spread of Fire, Internal Moisture, W Protection of gas supply contamination low pressures Protection of water supplies air gaps backflow prevention devices atmospheric vacuum breakers double check valves pressure vacuum breakers reduced pressure zone devices cross connections hazard installation	G11/AS1 7.0 G11/AS1 7.1 G11/AS1 7.1 G11/AS1 7.2 G12/AS1 3.4 G12/AS1 3.5 G12/AS1 3.6 G12/AS1 3.6.2 d) 3.6.4 d), 3.7.1, Table 2 G12/AS1 3.6.2 b), 3.7.2, Table 2 G12/AS1 3.6.2 c), 3.6.4 c), 3.7.1, Table 2 G12/AS1 3.6.2 a), 3.6.4 a), 3.7.2, Table 2 G12/AS1 3.6.2 a), 3.6.4 a), 3.7.2, Table 2 G12/AS1 3.6.3 a), 3.6.4 a), 3.7.2, Table 2 G12/AS1 3.6.3 a), 3.6.4 a), 3.7.2, Table 2 G12/AS1 3.1, 3.2 G12/AS1 3.3
see Spread of Fire, Internal Moisture, W Protection of gas supply contamination low pressures Protection of water supplies air gaps backflow prevention devices atmospheric vacuum breakers double check valves pressure vacuum breakers reduced pressure zone devices cross connections hazard installation testing	G11/AS1 7.0 G11/AS1 7.1 G11/AS1 7.1 G11/AS1 7.2 G12/AS1 3.4 G12/AS1 3.5 G12/AS1 3.6 G12/AS1 3.6.2 d) 3.6.4 d), 3.7.1, Table 2 G12/AS1 3.6.2 c), 3.6.4 c), 3.7.1, Table 2 G12/AS1 3.6.2 a), 3.6.4 a), 3.7.2, Table 2 G12/AS1 3.6.2 a), 3.6.4 a), 3.7.2, Table 2 G12/AS1 3.6.3 G12/AS1 3.3.2 G12/AS1 3.3.3
see Spread of Fire, Internal Moisture, W Protection of gas supply contamination low pressures Protection of water supplies air gaps backflow prevention devices atmospheric vacuum breakers double check valves pressure vacuum breakers reduced pressure zone devices cross connections hazard installation testing.	G11/AS1 7.0 G11/AS1 7.1 G11/AS1 7.1 G11/AS1 7.2 G12/AS1 3.4 G12/AS1 3.5 G12/AS1 3.6 G12/AS1 3.6.2 d) 3.6.4 d), 3.7.1, Table 2 G12/AS1 3.6.2 c), 3.6.4 c), 3.7.2, Table 2 G12/AS1 3.6.2 a), 3.6.4 a), 3.7.2, Table 2 G12/AS1 3.6.3 a), 3.6.4 a), 3.7.2, Table 2 G12/AS1 3.6.3 a), 3.6.4 a), 3.7.2, Table 2 G12/AS1 3.6.3 a), 3.6.4 a), 3.7.2, Table 2 G12/AS1 3.7 G12/AS1 3.7
see Spread of Fire, Internal Moisture, W Protection of gas supply contamination low pressures Protection of water supplies air gaps backflow prevention devices atmospheric vacuum breakers double check valves pressure vacuum breakers reduced pressure zone devices cross connections hazard installation testing. Purpose groups C/AS1 1.3.2 Step 3, 2.1.3, 4.5.8, 4.5.13, 5.8.4, 7.5.10,	G11/AS1 7.0 G11/AS1 7.1 G11/AS1 7.1 G11/AS1 7.2 G12/AS1 3.4 G12/AS1 3.5 G12/AS1 3.6 G12/AS1 3.6.2 d) 3.6.4 d), 3.7.1, Table 2 G12/AS1 3.6.2 c), 3.6.4 c), 3.7.1, Table 2 G12/AS1 3.6.2 a), 3.6.4 a), 3.7.2, Table 2 G12/AS1 3.6.3 a), 3.6.4 a), 3.7.2, Table 2 G12/AS1 3.6.3 a), 3.6.4 a), 3.7.2, Table 2 G12/AS1 3.6.3 G12/AS1 3.7 G12/AS1 3.6.3 G12/AS1 3.6.3 G12/AS1 3.6.3 G12/AS1 3.6.3 G12/AS1 3.7
see Spread of Fire, Internal Moisture, W Protection of gas supply contamination low pressures Protection of water supplies air gaps backflow prevention devices atmospheric vacuum breakers double check valves pressure vacuum breakers reduced pressure zone devices cross connections hazard installation testing. Purpose groups C/AS1 1.3.2 Step 3, 2.1.3, 4.5.8, 4.5.13, 5.8.4, 7.5.10, 6.1	G11/AS1 7.0 G11/AS1 7.1 G11/AS1 7.1 G11/AS1 7.2 G12/AS1 3.4 G12/AS1 3.5 G12/AS1 3.6 G12/AS1 3.6.2 d) 3.6.4 d), 3.7.1, Table 2 G12/AS1 3.6.2 c), 3.6.4 c), 3.7.1, Table 2 G12/AS1 3.6.2 a), 3.6.4 a), 3.7.2, Table 2 G12/AS1 3.6.3 a), 3.6.4 a), 3.7.2, Table 2 G12/AS1 3.6.3 a), 3.6.4 a), 3.7.2, Table 2 G12/AS1 3.6.3 G12/AS1 3.6.3 G12/AS1 3.6.3 G12/AS1 3.6.3 G12/AS1 3.6.3 G12/AS1 3.7 C12/AS1 3.7
see Spread of Fire, Internal Moisture, W Protection of gas supply	G11/AS1 7.0 G11/AS1 7.1 G11/AS1 7.1 G11/AS1 7.2 G12/AS1 3.4 G12/AS1 3.5 G12/AS1 3.6 G12/AS1 3.6 G12/AS1 3.6.2 d) 3.6.4 d), 3.7.1, Table 2 G12/AS1 3.6.2 c), 3.6.4 c), 3.7.2, Table 2 G12/AS1 3.6.2 c), 3.6.4 c), 3.7.1, Table 2 G12/AS1 3.6.2 a), 3.6.4 a), 3.7.2, Table 2 G12/AS1 3.6.3 G12/AS1 3.6.3 G12/AS1 3.7 C12/AS1 3.6 G12/AS1 3.7 C12/AS1 3.7 C12/AS1 3.7 C12/AS1 3.7
see Spread of Fire, Internal Moisture, W Protection of gas supply	G11/AS1 7.0 G11/AS1 7.1 G11/AS1 7.1 G11/AS1 7.2 G12/AS1 3.4 G12/AS1 3.5 G12/AS1 3.6 G12/AS1 3.6.2 d) 3.6.4 d), 3.7.1, Table 2 G12/AS1 3.6.2 c), 3.6.4 c), 3.7.1, Table 2 G12/AS1 3.6.2 c), 3.6.4 c), 3.7.2, Table 2 G12/AS1 3.6.2 a), 3.6.4 a), 3.7.2, Table 2 G12/AS1 3.6.3 G12/AS1 3.7 G12/AS1 3.6.3 G12/AS1 3.7 C12/AS1 3.6 G12/AS1 3.7 C12/AS1 3.7
see Spread of Fire, Internal Moisture, W Protection of gas supply contamination low pressures Protection of water supplies air gaps backflow prevention devices atmospheric vacuum breakers double check valves pressure vacuum breakers reduced pressure zone devices cross connections hazard installation testing Purpose groups C/AS1 1.3.2 Step 3, 2.1.3, 4.5.8, 4.5.13, 5.8.4, 7.5.10, 6.1 active purpose groups C/concessions for multiple purpose groups fire hazard category 4.	G11/AS1 7.0 G11/AS1 7.1 G11/AS1 7.1 G11/AS1 7.2 G12/AS1 3.4 G12/AS1 3.5 G12/AS1 3.6 G12/AS1 3.6.2 d) 3.6.4 d), 3.7.1, Table 2 G12/AS1 3.6.2 b), 3.7.2, Table 2 G12/AS1 3.6.2 c), 3.6.4 c), 3.7.1, Table 2 G12/AS1 3.6.2 a), 3.6.4 a), 3.7.2, Table 2 G12/AS1 3.6.3 a), 3.6.4 a), 3.7.2, Table 2 G12/AS1 3.6.3 a), 3.6.4 a), 3.7.2, Table 2 G12/AS1 3.7 G12/AS1 3.7 C12/AS1 3.7
see Spread of Fire, Internal Moisture, W Protection of gas supply contamination low pressures Protection of water supplies air gaps backflow prevention devices atmospheric vacuum breakers double check valves pressure vacuum breakers reduced pressure zone devices cross connections hazard installation testing Purpose groups C/AS1 1.3.2 Step 3, 2.1.3, 4.5.8, 4.5.13, 5.8.4, 7.5.10, 6.1 active purpose groups C/concessions for multiple purpose groups fire hazard category 4.	G11/AS1 7.0 G11/AS1 7.1 G11/AS1 7.1 G11/AS1 7.2 G12/AS1 3.4 G12/AS1 3.5 G12/AS1 3.6 G12/AS1 3.6 G12/AS1 3.6.2 d) 3.6.4 d), 3.7.1, Table 2 G12/AS1 3.6.2 c), 3.6.4 c), 3.7.1, Table 2 G12/AS1 3.6.2 c), 3.6.4 c), 3.7.2, Table 2 G12/AS1 3.6.2 a), 3.6.4 a), 3.7.2, Table 2 G12/AS1 3.6.3 G12/AS1 3.6.3 G12/AS1 3.7 C12/AS1 3.6 G12/AS1 3.7 C12/AS1 3.7
see Spread of Fire, Internal Moisture, W Protection of gas supply contamination low pressures Protection of water supplies air gaps backflow prevention devices atmospheric vacuum breakers double check valves pressure vacuum breakers reduced pressure zone devices cross connections hazard installation testing Purpose groups C/AS1 1.3.2 Step 3, 2.1.3, 4.5.8, 4.5.13, 5.8.4, 7.5.10, 6.1 active purpose groups fire hazard category 4 primary purpose group. C/AS1 2.	G11/AS1 7.0 G11/AS1 7.1 G11/AS1 7.1 G11/AS1 7.2 G12/AS1 3.4 G12/AS1 3.5 G12/AS1 3.6 G12/AS1 3.6 G12/AS1 3.6.2 d) 3.6.4 d), 3.7.1, Table 2 G12/AS1 3.6.2 c), 3.6.4 c), 3.7.1, Table 2 G12/AS1 3.6.2 c), 3.6.4 c), 3.7.2, Table 2 G12/AS1 3.6.2 a), 3.6.4 a), 3.7.2, Table 2 G12/AS1 3.6.3 a), 3.6.4 a), 3.7.2, Table 2 G12/AS1 3.6.3 G12/AS1 3.6.3 G12/AS1 3.6.3 G12/AS1 3.6.3 G12/AS1 3.6.3 G12/AS1 3.7 C2.2.1, 2.3.2, 3.4.2 b), 4.2.7 a) c), 4.5.1, 4.5.2, 7.8.5, 7.9.6, 7.11.3, Tables 2.1, 3.1 to 3.3, 4.1, to 6.3 and 7.5; F6/AS1 1.1.3, 1.1.4, Table 2.1 AS1 3.15.1 b), 3.15.3, 4.4.1 Step 2, Table 4.1 C/AS1 5.6.7, 5.6.8, 5.6.11 C/AS1 5.6.7, 5.6.8, 5.6.11 C/AS1 2.2.10, 5.6.11 2.2, 2.2.4, 2.2.7, 4.2.7 c), 4.4.1 Step 1, 4.5.5, 6.10.1, 6.11.1, 6.11.2
see Spread of Fire, Internal Moisture, W Protection of gas supply contamination low pressures Protection of water supplies air gaps backflow prevention devices atmospheric vacuum breakers double check valves pressure vacuum breakers reduced pressure zone devices cross connections hazard installation testing Purpose groups	G11/AS1 7.0 G11/AS1 7.1 G11/AS1 7.1 G11/AS1 7.2 G12/AS1 3.4 G12/AS1 3.5 G12/AS1 3.6 G12/AS1 3.6.2 d) 3.6.4 d), 3.7.1, Table 2 G12/AS1 3.6.2 b), 3.7.2, Table 2 G12/AS1 3.6.2 c), 3.6.4 c), 3.7.1, Table 2 G12/AS1 3.6.2 a), 3.6.4 a), 3.7.2, Table 2 G12/AS1 3.6.3 a), 3.6.4 a), 3.7.2, Table 2 G12/AS1 3.6.3 a), 3.6.4 a), 3.7.2, Table 2 G12/AS1 3.7 G12/AS1 3.6.3 a), 3.6.4 a), 3.7.2, Table 2 G12/AS1 3.7 C12/AS1 3.6.3 a), 3.6.4 a), 3.7.2, Table 2 G12/AS1 3.1, 3.2 G12/AS1 3.6.3 a), 3.6.4 a), 3.7.2, Table 2 G12/AS1 3.1 a), 3.1.4, Table 2.1 AS1 3.15.1 b), 3.15.3, 4.4.1 Step 2, Table 4.1 C/AS1 5.6.7, 5.6.8, 5.6.11 C/AS1 5.6.7, 5.6.8, 5.6.11 C/AS1 2.2.10, 5.6.11 2.2, 2.2.4, 2.2.7, 4.2.7 c), 4.4.1 Step 1, 4.5.5, 6.10.1, 6.11.1, 6.11.2
see Spread of Fire, Internal Moisture, W Protection of gas supply contamination low pressures Protection of water supplies air gaps backflow prevention devices atmospheric vacuum breakers double check valves pressure vacuum breakers reduced pressure zone devices cross connections hazard installation testing Purpose groups	G11/AS1 7.0 G11/AS1 7.1 G11/AS1 7.1 G11/AS1 7.2 G12/AS1 3.4 G12/AS1 3.5 G12/AS1 3.6 G12/AS1 3.6.2 d) 3.6.4 d), 3.7.1, Table 2 G12/AS1 3.6.2 c), 3.6.4 c), 3.7.2, Table 2 G12/AS1 3.6.2 c), 3.6.4 c), 3.7.1, Table 2 G12/AS1 3.6.2 a), 3.6.4 a), 3.7.2, Table 2 G12/AS1 3.6.3, 3.6.4 a), 3.7.2, Table 2 G12/AS1 3.6.3 G12/AS1 3.6.3 G12/AS1 3.6.3 G12/AS1 3.7 C12/AS1 3.7 C2.2.1, 2.3.2, 3.4.2 b), 4.2.7 a) c), 4.5.1, 4.5.2, 7.8.5, 7.9.6, 7.11.3, Tables 2.1, 3.1 to 3.3, 4.1, to 6.3 and 7.5; F6/AS1 1.1.3, 1.1.4, Table 2.1 AS1 3.15.1 b), 3.15.3, 4.4.1 Step 2, Table 4.1 C/AS1 5.6.7, 5.6.8, 5.6.11 C/AS1 2.2.10, 5.6.11 2.2, 2.2.4, 2.2.7, 4.2.7 c), 4.4.1 Step 1, 4.5.5, 6.10.1, 6.11.1, 6.11.2 C/AS1 2.4 9.12 f), 3.15.1 c), 3.15.5, 4.4.1 Step 2, 4.5.11,
see Spread of Fire, Internal Moisture, W Protection of gas supply contamination low pressures Protection of water supplies air gaps backflow prevention devices atmospheric vacuum breakers double check valves pressure vacuum breakers reduced pressure zone devices cross connections hazard installation testing Purpose groups	G11/AS1 7.0 G11/AS1 7.1 G11/AS1 7.1 G11/AS1 7.2 G12/AS1 3.4 G12/AS1 3.5 G12/AS1 3.6 G12/AS1 3.6.2 d) 3.6.4 d), 3.7.1, Table 2 G12/AS1 3.6.2 b), 3.7.2, Table 2 G12/AS1 3.6.2 c), 3.6.4 c), 3.7.1, Table 2 G12/AS1 3.6.2 a), 3.6.4 a), 3.7.2, Table 2 G12/AS1 3.6.3 a), 3.6.4 a), 3.7.2, Table 2 G12/AS1 3.6.3 a), 3.6.4 a), 3.7.2, Table 2 G12/AS1 3.7 G12/AS1 3.6.3 a), 3.6.4 a), 3.7.2, Table 2 G12/AS1 3.7 C12/AS1 3.6.3 a), 3.6.4 a), 3.7.2, Table 2 G12/AS1 3.1, 3.2 G12/AS1 3.6.3 a), 3.6.4 a), 3.7.2, Table 2 G12/AS1 3.1 a), 3.1.4, Table 2.1 AS1 3.15.1 b), 3.15.3, 4.4.1 Step 2, Table 4.1 C/AS1 5.6.7, 5.6.8, 5.6.11 C/AS1 5.6.7, 5.6.8, 5.6.11 C/AS1 2.2.10, 5.6.11 2.2, 2.2.4, 2.2.7, 4.2.7 c), 4.4.1 Step 1, 4.5.5, 6.10.1, 6.11.1, 6.11.2



Purpose groups (continued)

CIAC1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
CL
A2.1.1 Type 16, Tables 2.1, 3.1 to 3.3, 6.2 and 6.3; F7/AS1 1.3.5 b)
CM C/AS1 3.5.2 a), 3.5.3 a), 3.5.4 a), 3.5.6 c), 3.15.1 b), 3.15.3, 3.15.4, 3.17.1 c),
6.4, 6.20.17, 6.20.20, 6.22.1, 7.9.10 b), Figure 3.20, Tables 2.1, 3.1 to 3.3,
6.2 and 6.3; F7/AS1 1.3.5 b)
CO
Tables 2.1, 3.1, 3.3, 6.2 and 6.3
CS C/AS1 2.2.3, 2.2.6, 2.2.7, 3.5.2 a), 3.5.3 a), 3.5.4 a), 3.5.6 c), 3.15.1 b), 3.15.3,
3.15.4, 3.18.1, 6.3.1, 6.20.7, 6.20.17, 6.20.20, 6.22.1, A2.1.1 Type 16,
Figure 3.20, Tables 2.1, 3.1 to 3.3, 6.2 and 6.3; F7/AS1 1.3.5 b)
IA C/AS1 3.5.2 a), 3.5.3 a), 3.5.4 a), 3.5.6 b), 3.10.2, 3.15.1 b), 3.15.3, 3.15.4,
4.3.3, 6.10, 6.22.1, A2.1.1 Type 16, Figure 3.20, Tables 2.1, 3.1 to 3.3 and 6.3
ID C/AS1 3.5.2 a), 3.5.3 a), 3.5.4 a), 3.5.6 b), 3.15.1 b), 3.15.3, 4.3.3, 6.11,
A2.1.1 Type 16, Tables 2.1, 3.1 to 3.3 and 6.3
IE C/AS1 4.3.3, 6.9, 6.20.20, 7.3.1 a), 7.3.14, 7.5.3 Step 1, 7.9.6 a), 7.9.10 a),
Tables 2.1 and 6.2
SA
3.11.6, 3.15.1 c), 3.15.5 to 3.15.7, 3.16.9, 3.17.9 b) d), 3.18.1, 4.5.11,
5.7.6 b), 5.8.2 c), 6.7, 6.9.6, 6.14.3, 6.16.5, 6.18.7, 6.20.20, 6.22.1,
7.1.1 b), 7.3.1 a), 7.3.14, 7.5.3 Step 1, 7.5.7, 7.5.9, 7.5.10, 7.9.6 a),
7.9.10 a), A2.1.1 Type 4, Type 5, Type 7, Figures 3.21 and 7.7, Tables 2.1, 3.1 to 3.3, 6.1 to 6.3 and 7.5; F7/AS1 1.1.2 b),
1.2.5, 1.3.5 a) b), 2.1.2 d)
SC C/AS1 2.3.6, 3.9.12 f), 3.9.14, 3.11.6, 3.16.8, 3.17.4, 3.17.9 b) d), 4.5.11,
5.7.6 b), 5.8.2 c), 6.6, 6.9.6, 6.11.3, 6.20.8 b), 6.20.20, 7.1.1 b),
7.3.1 a), 7.3.14, 7.5.3 Step 1, 7.9.6 a), 7.9.10 a), 7.11.1, 8.1.2,
Tables 2.1, 3.1 to 3.3, 6.1 to 6.3 and 7.5;
F7/AS1 1.3.5 a) b), 2.1.2 e), 2.2.3
SD C/AS1 2.3.6, 3.9.12 f), 3.9.14, 3.11.6, 3.16.8, 3.17.4, 3.17.9 b) d), 4.5.11,
5.7.6 b), 5.8.2 c), 6.6, 6.9.6, 6.11.3, 6.20.8 b), 6.20.20, 7.1.1 b), 7.3.1 a),
7.3.14, 7.5.3 Step 1, 7.9.6 a), 7.9.10 a), 7.11.1, 8.1.2, Tables 2.1, 3.1 to 3.3,
6.1 to 6.3 and 7.5; F7/AS1 1.3.5 a) b), 2.1.2 e), 2.2.3
SH
4.3.3, 5.9.4 c), 6.8, 6.14.3, 6.14.4, 6.20.1, 7.1.1 b), 7.3.1 a), 7.3.14,
7.5.3 Step 1, 7.5.7, 7.5.9, 7.5.10, 7.8.5, 7.9.19, 7.10.6, 7.10.8, 7.11.4,
Figure 7.7, Tables 2.1, 3.3, 6.2 and 6.3
SR
3.15.5 to 3.15.7, 3.16.9, 3.17.9 b) d), 3.18.1, 3.20.1, 4.5.11, 5.7.6 b), 5.8.2 c), 6.8, 6.9.6, 6.14.3, 6.14.4, 6.16.5, 6.18.7, 6.20.1, 6.20.20,
6.22.1, 7.1.1 b), 7.3.1 a), 7.3.14, 7.5.3 Step 1, 7.5.7, 7.5.9, 7.5.10,
7.8.5, 7.9.6 a), 7.9.10 c), 7.9.19, 7.10.6 to 7.10.8, A2.1.1 Type 4,
Type 5, Type 7, Figures 3.21 and 7.7, Tables 2.1, 3.1 to 3.3,
6.1 to 6.3 and 7.5; F7/AS1 1.1.2 b), 1.2.5, 1.3.5 a) b)
WF
WH
Tables 2.1, 3.1 to 3.3, 6.2 and 6.3
WL
6.22.1, Figure 3.20, Tables 2.1, 3.1 to 3.3, 6.2 and 6.3
WM C/AS1 3.5.2 a) to 3.5.4 a), 3.5.6 c), 3.15.1 b), 3.15.3, 3.15.4, 6.11.1,
Figure 3.20, Tables 2.1, 3.1 to 3.3, 6.2 and 6.3



QR

Q

Qualifications **E2/AS1** 1.5, 8.2.2, 8.4.2, 8.5.2, 9.2.2, 9.3.4.1, 9.6.2, 9.9.2

R

Radioactive substances

see Hazardous Substances and Processes, Class 7

Ramps	C/AS1 3.1.4, 3.9.2, D1/AS1 1.3.1, 1.3.2, 3.0
accessible ramps	D1/AS1 3.1.3, 6.0.3 to 6.0.4, Figure 9
slopes	D1/AS1 Table 3
width	D1/AS1 3.2
intermediate landings	D1/AS1 3.3.1, Table 5
length	D1/AS1 3.3.3
	D1/AS1 3.3.2
kerb ramps	D1/AS1 3.4, Figure 10
	D1/AS1 3.3, Figure 25
	D1/AS1 3.1.2, Figure 8, Table 4
	D1/AS1 3.1.4, Table 2
	D1/AS1 3.1, 3.1.1
Recirculated air systems	G4/AS1 1.3.1 e)
Reflectances	G7/AS1 Table 2
high	G7/AS1 1.0.3, 1.0.4, Table 1
medium	G7/AS1 1.0.3, 1.0.4, Table 1
Refuge areas see Fire safety precautions	
Refuse	
see Solid waste	

Reinforcing steel **B1/AS3** 1.3.2 b) c), 1.4, 1.6, 1.6.1, 1.6.2, 1.8.5, 2.2.1 a), Table 1 7.3.1 b), 7.3.4 to 7.3.6, 7.3.9, 7.3.12 b), 7.3.15 a), 7.4.2, 7.5 to 7.8, 7.10.5, 7.10.6, 7.11.4, Figures 7.3, 7.7 to 7.9, Tables 7.1 to 7.5

Relief valve drains

see Cold water expansion valves, Temperature relief valves,

Temperature/pressure relief valves

Retirement villages

see Communal residential

Rodding points

see Maintenance access to drains

Roof claddings	E2/AS1 3.2, 8.0
general	E2/AS1 8.1
fixings	E2/AS1 8.1.4, Table 20
gutters	E2/AS1 8.1.6, Figure 20
hidden gutters	E2/AS1 8.1.6.1
internal gutters	E2/AS1 8.1.6.1, 8.1.6.3
valley gutters	E2/AS1 8.1.6.1, 8.1.6.2, Table 8
limitations	E2/AS1 8.1.2
maintenance	E2/AS1 8.1.3
projecting eaves	E2/AS1 8.1.3.1



Roof claddings (continued)

•	
roof penetrations	E2/AS1 8.1.5, Table 23 E2/AS1 8.1.5.1
Roof/wall junctions apron flashings barges fascias gutters	
Roofs C/AS1 3.14.3, 3.14.4, 3.14.6 a), 6.20.5, 6.20.11, 7.2.1 b), 7	3.16.7, 5.1.1 b), 6.12.1, 6.12.7, 6.18.5 c), 7.8.1, 7.9.1 to 7.9.9, Figures 7.1 and 7.11;
car parking and storage	
open sided buildings	
Rubbish chutes see Solid Waste	
Run-off estimation of run-off Rational Method rainfall intensity	E1/VM1 2.0.1 E1/VM1 2.0.1 Appendix A

n-ott	
estimation of run-off	E1/VM1 2.0
Rational Method	E1/VM1 2.0.1
rainfall intensity	E1/VM1 2.2, E1/AS1 Appendix A
	E1/VM1 2.1, Table 1
slope correction	E1/VM1 2.1.3, Table 2
	E1/VM1 2.2.1, 2.3
alternative procedure	E1/VM1 2.3.6, 2.3.7
	E1/VM1 2.3.7
open channel flow	E1/VM1 2.3.5
pipe flow	E1/VM1 2.3.4, Table 1
• •	E1/VM1 2.3.2
overland flow	E1/VM1 2.3.2 b), Figure 1
road channel flow	E1/VM1 2.3.2 b), Figure 2
	E1 //M1 2 2 2



S

S rating see Fire resistance ratings	
Safe pathssee also Escape routes	F7/AS1 1.3.1, 1.3.4; F8/AS1 3.2.3 b)
Safe placeNZBC/F7.3, I	F8.3.3 (a); C/AS1 3.1.1, 3.7.1, 3.16.4, 3.16.8, 6.1.1, 6.22.7, A2.1.1 Type 13 and Type 16
Safe trays see Storage water heaters	
Safe water temperatures see Water Supplies, hot	
see also Barriers accidental fallschildren under 6	
low risk areas pressure of people	
roofs with permanent access . swimming pools	NZBC/F4.3.1 NZBC/F4.3.2 NZBC/F4.3.3, F4.3.5 F4/AS1 3.0
Hazardous Substances and	te, Hazardous Building Materials, Processes, Safety from Falling, Construction
and Demolition Hazards, Lig	hting for Emergency, Warning Systems, Signs
Sanitary appliances	hting for Emergency, Warning Systems, Signs
Sanitary applianceswashing machines	NZBC/G13.2; G12/AS1 8.0.1, Table 1; G13/AS1 1.0.2, 3.3.1, Table 2 G13/AS1 Figure 2, Table 2 G13/AS1 Figure 2, Table 2 G12.3.6 (b), G13.2; G12/AS1 6.12.1, 6.14.2, Figure 20, Tables 1 and 3; G13/AS1 1.0.2, 3.3.1, Table 2
Sanitary appliances	NZBC/G13.2; G12/AS1 8.0.1, Table 1; G13/AS1 1.0.2, 3.3.1, Table 2
Sanitary appliances	NZBC/G13.2; G12/AS1 8.0.1, Table 1; G13/AS1 1.0.2, 3.3.1, Table 2
Sanitary appliances	NZBC/G13.2; G12/AS1 8.0.1, Table 1; G13/AS1 1.0.2, 3.3.1, Table 2
Sanitary appliances washing machines Sanitary fixtures see also Basins, Bidets, Perso acceptable standards access pans people with disabilities basins bidets communal sanitary fixtures construction and installation locations non-flushing sanitary fixtures privies number of fixtures required safe water temperatures sanitary towel disposal showers soil fixtures	NZBC/G13.2; G12/AS1 8.0.1, Table 1; G13/AS1 1.0.2, 3.3.1, Table 2
Sanitary appliances	NZBC/G13.2; G12/AS1 8.0.1, Table 1; G13/AS1 1.0.2, 3.3.1, Table 2



Sanitary fixtures (continued)	
	G1/AS1 2.3, 6.1.1, Table 1
	G1/AS1 2.3.2
<i>5 .</i>	G1/AS1 2.3.5 to 2.3.8, Table 5
* *	G1/AS1 2.3.8 G1/AS1 2.3.1, 2.3.5
	G1/AS1 2.3.4
trough urinals	G1/AS1 2.3.1 to 2.3.3
Sanitation see Personal Hygiene	
Schools	
see Communal non-residential	
SDI	
see Smoke developed index	
Seating C/AS1 2.3.5, 3.3.2 k), 3.3	3.6 c), 3.9.3, 3.9.4, 3.9.7 to 3.9.11, 3.16.5, 3.16.6, 6.5.1, Figures 3.13 to 3.15, Tables 2.2 and 3.4
open air auditoriums (purpose group C	O) C/AS1 3.16.5, 3.16.6, 6.5.1
Seats on decks	F4/AS1 1.2.4, Figure 6
Security	.NZBC/G14.3.2 (g); G14/VM1 1.9, G14/AS1 1.1
Serviceability limit states	
see Structure, limit states	
	r Environment, Airborne and Impact Sound, ricity, Piped Services,Gas as an Energy Source,
Sewers	
see Foul Water SFI	
see Spread of flame index	
Sheds	
see Outbuildings	
Shops	
see Commercial buildings	
Showers E3/AS1 3.2, 3.2.2, 3	.3, Figures 4 and 5; G1/AS1 2.5, Figures 5 and 8, Table 2; G13/AS1 Table 2
Shrinkage	
see Structure , loads	
Signs	F8; NZBC/C2.3.3, D1.3.4 (a), D2.3.2 (d);
escape routes	C/AS1 3.3.6 a), 3.17.11 d), D1/AS1 1.1.1 NZBC/F8.2 (a), F8.3.3 (a)
exit	F8/AS1 3.0
	F8/AS1 3.2.2, 3.3.2, Figure 3
	F8/AS1 2.1, 3.4, 3.5.3 a) b), 4.1.3, Table 3
	F8/AS1 3.5
•	F8/AS1 3.5.3
	F8/AS1 3.5.5
location	F8/AS1 3.1
no exit signs	F8/AS1 3.2.3 a)

Signs; escape routes (continued)



Signs, escape routes (continued)	
fire safety	
call points	F8/AS1 4.1, Figure 4
colours	
fire and smoke control doors	
lifts	
stairs for Fire Service personnel	F8/AS1 6.4.3, Figures 12 and 13
storage heights	F8/AS1 6.4.2, Figure 11
hazard signs	F8/AS1 6.0
dangerous goods	F8/AS1 6.1
class 1	F8/AS1 6.1.4
class 2	F8/AS1 6.1.4
class 3	F8/AS1 6.1.4
class 5	F8/AS1 6.1.4
class 7	F8/AS1 6.1.4
colour	F8/AS1 6.1.4 a
	F8/AS1 6.1.4 a), Figure 8
colour	
layout	
lettering	
location	
electrical hazards	
escalators and moving walks	
floor loadings	
buildings	
lifts	
passenger lifts	
service lifts	
hazardous substances and processes	
identification of hazards	9
machine rooms	
non-potable water	
lighting for emergency	
people with disabilities	
access symbol	
layout	
listening systems	
readability	
lettering type and proportionssafety	
· · · · · · · · · · · · · · · · · · ·	
caution	
colours	
layout	
prohibition and stop signs	
safe condition signs	
safety symbols	
visibility	INZBU/F8.3.1, F8.3.3 (b)
Single escape routes	
see Escape routes	
·	
Sinks E3/AS1 3.2.2, Fi	gure 3; G3/AS1 1.1.5, G13/AS1 Table 2
see also Basins, Cleaners' sinks, Kitchen sinks	
Site characteristics	B1/VM4 Appendix A



Siteworks see Design, siteworks
Slip resistance
Slopes D1/AS1 1.2 acceptable slopes D1/AS1 1.2.1, Figure 2 changes in level D1/AS1 1.3, 1.3.1 cross falls D1/AS1 1.2.2
Slope stability
Small chimneys see Chimneys
Smoke
Smoke alarms F7/AS1 3.1.1, 3.1.2 alarm system F7/AS1 3.2.1, 3.2.2, 3.2.3, 3.2.4 location F7/AS1 3.3.1, 3.3.2 maintenance F7/AS1 3.4.1
Smoke control
see also Fire safety precautions car parking
intermediate floors
mechanical smoke extract see Fire safety precautions
natural smoke venting see Fire safety precautions pressurisation
see Fire safety precautions
smoke reservoirs
ventilation C/AS1 3.14.7, 6.9.6 to 6.9.8, 6.10.6 vertical safe paths C/AS1 6.9.11, Figure 6.1
Smokecells
Smoke detectors see Fire safety precautions
Smoke developed index (SDI)
Smoke separations
glazing
Smoke spread see Smoke control
Snow see Structure, loads



Socket outlets see Electricity , people with disabilities	
Soil fixturessee also WC pans	G1/AS1 3.1.1, 3.2.1, 3.2.2, 3.3.1
Soil properties	B1/VM4 1.0.5, 2.0.6, 2.0.7, Appendix A
Soil shrinkage and expansion	B1/VM4 3.1.2, 3.4.3, A1.2.1
Soils	
	B1/VM4 1.0.2
installation	B1/AS3 2.0 C/AS1 9.1 C/AS1 9.1.2
Solid plastering	B2/AS1 3.3
collectionholdingsewer	C/AS1 3.12.1, 6.16.5, 6.16.6 NZBC/G15.2, G15.3.1 NZBC/G15.2, G15.3.1 NZBC/G15.3.3
alternative solution	C/AS1 3.12.1, G15/AS1 1.0.1, 3.0, Figure 1
water supply windows space required	
temperature waste disposal units waste (rubbish) chutes	
restricted access	NZBC/G15.3.2 (d) NZBC/G15.3.2 (g) NZBC/G15.3.2 (e)
see Airborne and Impact Sound Sound transmission class (STC) see Airborne and Impact Sound	
Spandrels	C/AS1 7.1.2 e), 7.9.12, 7.9.13, Figure 7.2
Specified intended life see Durability	
	NZBC/C3.3.6
see also Fire safety precautions automatic smoke control systemssee also Smoke control	NZBC/C3.3.8
protect adjacent propertyresistant to spread of firerubbish chutes	NZBC/C3.3.4 NZBC/C3.1 (c), C3.2 (c) NZBC/C2.3.3, C3.3.1 NZBC/G15.3.2 NZBC/C3.1 (d), C3.2 (d)
•	NZBC/C3.1 (a)



C5.1.1 b), Table 6.2 Sprinklers see Fire safety precautions Stability see Fire resistance ratings, Structure Stadiums see Communal non-residential Staircase see Stairways Stairs see Stairways Stairs and ladders.......C/AS1 3.1.4, 3.4.1 a), 3.4.7, 3.9.14, 3.15.9, Figures 3.6, 3.10 and 3.21 stairways......**C/AS1** 3.3.3, 3.3.4, 3.3.6 b), 3.4.5, 3.11.8, 3.12.3, 3.15.6, 5.8.2 c), 6.9.3, 6.9.10, 7.5.7 see also Access Routes, accessible routes and ladders 6.0.1 to 6.0.4, Figure 11, Tables 6 to 8 common stairs**D1/AS1** 4.1.8, 4.2.1, Figure 11, Tables 6 to 8 Standard test see Test methods Steel see Design, steel



	NZBC/H1.3.4; G12/AS1 6.2, 6.3.1, 6.6.3, 6.6.5, 6.7.2, 6.6.4, 6.8 to 6.11, Table 5; H1/AS1 5.0
**	G12/AS1 6.1.2, 6.4.2
•	
unvented	- , - , - , - , - , - , - , - , - , - ,
see Storage water heaters,	
valve vented	G12/AS1 6.3 to 6.7, Figure 8
Storage water tanks see Tanks	
Strainers (filters)	G12/AS1 6.2.3
Structural fire endurance rating (S) see Fire resistance ratings	
Structural integrity see Structure, Structural Sta	bility During Fire
Structural Stability During Fire	
	NZBC/C4.3.3
	NZBC/C4.3.1
•	NZBC/C4.3.1 NZBC/C4.3.1
	NZBC/C4.3.1, C4.3.2, C4.3.3
Structural stability	
see Fire resistance ratings	
boo i no robiotanos ratings	
Structure	B1
Structurebuilding instability	NZBC/B1.1
Structure	NZBC/B1.1 NZBC/B1.2
Structure	NZBC/B1.1
Structure	NZBC/B1.1 NZBC/B1.2 NZBC/B1.2
Structure. building instability. collapse damage. deflections. demolition. design	NZBC/B1.1 NZBC/B1.2 NZBC/B1.2 NZBC/B1.2 NZBC/B1.3.6
Structure. building instability. collapse damage. deflections. demolition. design concrete.	NZBC/B1.1 NZBC/B1.2 NZBC/B1.2 NZBC/B1.2 NZBC/B1.2
Structure. building instability. collapse damage. deflections. demolition. design	NZBC/B1.1 NZBC/B1.2 NZBC/B1.2 NZBC/B1.2 NZBC/B1.3.6
Structure. building instability. collapse damage. deflections. demolition. design concrete drains	NZBC/B1.1 NZBC/B1.2 NZBC/B1.2 NZBC/B1.2 NZBC/B1.3.6
Structure. building instability collapse damage deflections demolition design concrete drains see Drains foundations see Foundations	NZBC/B1.1 NZBC/B1.2 NZBC/B1.2 NZBC/B1.2 NZBC/B1.3.6 NZBC/B1.3.0
Structure building instability collapse damage deflections demolition design concrete drains see Drains foundations see Foundations loadings	NZBC/B1.1 NZBC/B1.2 NZBC/B1.2 NZBC/B1.2 NZBC/B1.3.6 NZBC/B1.3.0 B1/VM1 3.0
Structure. building instability collapse damage deflections demolition design concrete drains see Drains foundations see Foundations loadings earthquake	NZBC/B1.1 NZBC/B1.2 NZBC/B1.2 NZBC/B1.3.6 NZBC/B1.3.0 B1/VM1 1.1, 2.0 B1/AS3 1.9, Table 2
Structure. building instability collapse damage deflections demolition design concrete drains see Drains foundations see Foundations loadings earthquake limit state	NZBC/B1.1 NZBC/B1.2 NZBC/B1.2 NZBC/B1.2 NZBC/B1.3.6 NZBC/B1.3.0 B1/VM1 1.1, 2.0 B1/AS3 1.9, Table 2 B1/VM1 1.1.2, 5.2, 7.1
Structure. building instability collapse damage deflections demolition design concrete drains see Drains foundations see Foundations loadings earthquake limit state non-limit state	NZBC/B1.1 NZBC/B1.2 NZBC/B1.2 NZBC/B1.3.6 NZBC/B1.3.0 B1/VM1 1.1, 2.0 B1/AS3 1.9, Table 2
Structure building instability	NZBC/B1.1 NZBC/B1.2 NZBC/B1.2 NZBC/B1.2 NZBC/B1.2 NZBC/B1.3.6 NZBC/B1.3.6 NZBC/B1.3.0 B1/VM1 1.1, 2.0 B1/AS3 1.9, Table 2 B1/VM1 1.1.2, 5.2, 7.1 B1/VM1 1.1.3, 7.2 B1/VM1 1.1.3, 7.2 B1/VM1 1.1.4 B1/VM1 4.0, B1/AS1 2.0, B1/AS3 1.3.3
Structure building instability	NZBC/B1.1 NZBC/B1.2 NZBC/B1.2 NZBC/B1.2 NZBC/B1.2 NZBC/B1.3.6 NZBC/B1.3.6 NZBC/B1.3.0 B1/VM1 1.1, 2.0 B1/AS3 1.9, Table 2 B1/VM1 1.1.2, 5.2, 7.1 B1/VM1 1.1.3, 7.2 Its B1/VM1 1.1.4 B1/VM1 4.0, B1/AS1 2.0, B1/AS3 1.3.3 B1/VM1 1.0.0
Structure building instability	NZBC/B1.1 NZBC/B1.2 NZBC/B1.2 NZBC/B1.2 NZBC/B1.2 NZBC/B1.3.6 NZBC/B1.3.6 NZBC/B1.3.0 B1/VM1 1.1, 2.0 B1/AS3 1.9, Table 2 B1/VM1 1.1.2, 5.2, 7.1 B1/VM1 1.1.3, 7.2 Its B1/VM1 1.1.4 B1/VM1 4.0, B1/AS1 2.0, B1/AS3 1.3.3 B1/VM1 10.0 B1/VM1 5.0
Structure building instability	NZBC/B1.1 NZBC/B1.2 NZBC/B1.2 NZBC/B1.2 NZBC/B1.2 NZBC/B1.3.6 NZBC/B1.3.6 NZBC/B1.3.0 B1/VM1 1.1, 2.0 B1/AS3 1.9, Table 2 B1/VM1 1.1.2, 5.2, 7.1 B1/VM1 1.1.3, 7.2 Its B1/VM1 1.1.4 B1/VM1 4.0, B1/AS1 2.0, B1/AS3 1.3.3 B1/VM1 1.0.0
Structure building instability	NZBC/B1.1 NZBC/B1.2 NZBC/B1.2 NZBC/B1.2 NZBC/B1.2 NZBC/B1.3.6 NZBC/B1.3.6 NZBC/B1.3.6 NZBC/B1.3.0 B1/VM1 1.1, 2.0 B1/AS3 1.9, Table 2 B1/VM1 1.1.2, 5.2, 7.1 B1/VM1 1.1.3, 7.2 Its B1/VM1 1.1.4 B1/VM1 4.0, B1/AS1 2.0, B1/AS3 1.3.3 B1/VM1 10.0 B1/VM1 5.0 B1/VM1 5.0 B1/VM1 5.0 B1/VM1 6.0, B1/AS1 3.0
Structure building instability	NZBC/B1.1 NZBC/B1.2 NZBC/B1.2 NZBC/B1.2 NZBC/B1.2 NZBC/B1.3.6 NZBC/B1.3.6 NZBC/B1.3.6 NZBC/B1.3.0 B1/VM1 1.1, 2.0 B1/AS3 1.9, Table 2 B1/VM1 1.1.2, 5.2, 7.1 B1/VM1 1.1.3, 7.2 Its B1/VM1 1.1.4 B1/VM1 4.0, B1/AS1 2.0, B1/AS3 1.3.3 B1/VM1 10.0 B1/VM1 5.0 B1/VM1 5.0 B1/VM1 5.0 B1/VM1 6.0, B1/AS1 3.0
Structure building instability	NZBC/B1.1 NZBC/B1.2 NZBC/B1.2 NZBC/B1.2 NZBC/B1.2 NZBC/B1.3.6 NZBC/B1.3.6 B1/VM1 1.1, 2.0 B1/AS3 1.9, Table 2 B1/VM1 1.1.2, 5.2, 7.1 B1/VM1 1.1.3, 7.2 Its B1/VM1 1.1.4 B1/VM1 4.0, B1/AS1 2.0, B1/AS3 1.3.3 B1/VM1 10.0 B1/VM1 5.0 B1/VM1 5.0 B1/VM1 5.0 B1/VM1 6.0, B1/AS1 3.0
Structure building instability	NZBC/B1.1 NZBC/B1.2 NZBC/B1.2 NZBC/B1.2 NZBC/B1.2 NZBC/B1.3.6 NZBC/B1.3.6 NZBC/B1.3.6 NZBC/B1.3.0 B1/VM1 1.1, 2.0 B1/AS3 1.9, Table 2 B1/VM1 1.1.2, 5.2, 7.1 B1/VM1 1.1.3, 7.2 Its B1/VM1 1.1.4 B1/VM1 4.0, B1/AS1 2.0, B1/AS3 1.3.3 B1/VM1 10.0 B1/VM1 5.0 B1/VM1 5.0 B1/VM1 5.0 B1/VM1 6.0, B1/AS1 3.0
Structure building instability	NZBC/B1.1 NZBC/B1.2 NZBC/B1.2 NZBC/B1.2 NZBC/B1.2 NZBC/B1.3.6 NZBC/B1.3.6 B1/VM1 1.1, 2.0 B1/AS3 1.9, Table 2 B1/VM1 1.1.2, 5.2, 7.1 B1/VM1 1.1.3, 7.2 Its B1/VM1 1.1.4 B1/VM1 4.0, B1/AS1 2.0, B1/AS3 1.3.3 B1/VM1 10.0 B1/VM1 5.0 B1/VM1 5.0 B1/VM1 5.0 B1/VM1 6.0, B1/AS1 3.0



Structure (continued)

Structure (continued)	
loads	NZBC/B1.2, B1.3.3
creep	NZBC/B1.3.3
cyclic loads	NZBC/B1.3.3
differential movement	NZBC/B1.3.3
dynamic loads	NZBC/B1.3.3
earth pressure	NZBC/B1.3.3
·	NZBC/B1.3.3
	g services
	NZBC/B1.3.3
·	NZBC/B1.3.3
•	NZBC/B1.3.3
•	NZBC/B1.3.3
	NZBC/B1.3.3
	NZBC/B1.3.6, B1.3.7
	NZBC/B1.3.6, B2.3.1; D1/AS1 1.6
	NZBC/B1.3.5
vibrations	NZBC/B1.2
Stucco	B1/AS1 5.0, E2/AS1 9.3
	E2/AS1 9.3.8, Figure 75
	E2/AS1 9.3.10
	E2/AS1 9.3.7
	E2/AS1 9.3.4
	E2/AS1 9.3.4.1
_	E2/AS1 9.3.4.2
•	
	E2/AS1 9.3.1
	E2/AS1 9.3.5
	E2/AS1 9.3.5.1, Table 23
	E2/AS1 9.3.5.2
	E2/AS1 9.3.6
•	E2/AS1 9.3.6.2
. ,	E2/AS1 9.3.6.1
	E2/AS1 9.3.9
• •	ades E2/AS1 9.3.9.1, Figure 117
	A\$1 9.3.2
	E2/AS1 9.3.3, Table 23, Figure 74
windows and doors	E2/AS1 9.3.11, Figure 76
Subsidence	B1/VM4 A1.2.1 (a)
oubsiderice	
Suites	
see Firecells	
Conferential and	0/404 0 1 0 a) 0 00 Tables 0 0 and 0 0
	C/AS1 6.20.3, 6.20.5, 6.20.6, 6.20.11, 6.20.15 a)
	C/AS1 7.1.2 c), 7.8.6, 7.11
	C/AS1 6.20.8 to 6.20.10, 6.20.14, C2.1
wharenui	C/AS1 3.3.2 h), 3.4.2 e), Table 2.2
Surface Water	E1
see also Run-off, drains	
2% probability storm	
· · · · · · · · · · · · · · · · · · ·	NZBC/E1.3.1
	142BO/ E1.3.1
10% probability storm	NZBC/E1.3.2
, ,	
uramage systems	NZBC/E1.3.3
Suspended flexible fabrics	C/AS1 6.20.1, 6.20.16 to 6.20.19, C3.1, Table 6.2
Swimming pools see Safety from Falling	

see Safety from Falling



T

Tanks	
	G14/VM1 1.4.1 c), 1.4.3, 3.0, Figure 3, Table 3
	G12/AS1 5.2.5, Figure 4
	G12/AS1 5.2.4
• •	
	G12/AS1 5.2.7, Figure 4; G14/VM1 2.3.2
water storage tanks	G12/AS1 5.1
Taverns	
see Communal non-residential	
Temperature	
see Electricity. Energy Efficiency. In	terior Environment, Outbreak of Fire,
Piped Services, Solid Waste, Structu	
Temperature control	
see Interior Environment, interior ten	nperature
	G12/AS1 6.4.1, Figure 8, Table 6
	G12/AS1 6.6.5 G12/AS1 6.7, Figures 12 and 13
Test methods	
	systems
	C/AS1 C7.1
fire resisting closures	
flame barriers	C/AS1 C10.1
flammability of floor coverings	C/AS1 C2.1
flammability of membrane structures	C/AS1 C4.1
flammability of suspended flexible fabr	ics C/AS1 C3.1
•	C/AS1 C6.1
properties of lining materials	C/AS1 C5.1
Theatres	NZBC/G5.3.5
see also Communal non-residential	
Thermal break	E3/AS1 1.1.4 d)
	E3/AS1 1.1; H1/VM1 1.4, H1/AS1 2.1.1, 2.2, 2.3
	E3/AS1 1.1, H1/VW1 1.4, H1/AS1 2.11, 2.2, 2.3
	E3/AS1 1.1.3
	·
	G12/AS1 6.3.1, 6.5.1
I hresholds	D1/AS1 1.3.2
	B2/AS1 3.2
see also Design, timber, Timber weath	erboards
	B1/AS1 1.2, 9.0, B1/AS2 1.0
see also Barriers and Safety from Fall	
	B1/AS2 2.7 2.2.1, 2.2.2, 2.3, 2.4.1, 2.7.1, 2.7.2, Figures 2 to 4,
	Tables 1 to 3 and 5
connections	B1/AS2 1.0.5 b) c), 2.2.2, 2.3.3 to 2.3.9, 2.5.2,
	2.5.3, 2.7.2, Figures 2 to 4, Tables 3 and 4
	B1/AS2 2.0
	B1/AS2 1.0.4
exposed to the weather	B1/AS2 1.0.5



Timber barriers (continued)

joists	B1/AS2 2.1.1, 2.3.4, 2.3.6, 2.3.8 1/AS2 2.1.1, 2.3.2, 2.3.4, 2.3.5, Figure 4 B1/AS2 2.3.2, 2.3.4, 2.3.6, Figure 4 B1/AS2 2.3.2, 2.3.3, Figure 3, Table 3 B1/AS2 2.6.1 B1/AS2 2.1.1, 2.5
railsbottom rails	B1/AS2 2.1.1, 2.4, 2.5.1, 2.7.2, Table 5
Timber connections	B1/AS2 1.0.5 b) c)
Timber weatherboards. finishes fixings horizontal weatherboards external corners fixings horizontal laps internal corners joints installation limitations horizontal weatherboards vertical weatherboards weatherboard profiles materials parapets and enclosed balustrades vertical weatherboards corners (external and internal) fixings laps	E2/AS1 9.4.9 E2/AS1 9.4.3.1, Table 24 E2/AS1 9.4.1.3, 9.4.4 E2/AS1 9.4.4.4, Figures 77 and 78 E2/AS1 9.4.4.3, Table 24 E2/AS1 9.4.4.5, Figure 79 E2/AS1 9.4.4.5, Figure 79 E2/AS1 9.4.3, Table 23 E2/AS1 9.4.1.3, Table 3 E2/AS1 9.4.1.2, Table 3 E2/AS1 9.4.1.2, Table 3 E2/AS1 9.4.2, Table 23 E2/AS1 9.4.2, Table 23 E2/AS1 9.4.5, Table 23 E2/AS1 9.4.5, Table 24 E2/AS1 9.4.5, Table 7, Figure 80 E2/AS1 9.4.5.1, Table 24 E2/AS1 9.4.5.1
windows in cavity walls windows in direct fixed weatherboards	

Time-share accommodation

see Communal residential

Toilets

see Personal Hygiene, WC Pans

Toxic substances

see Hazardous Substances and Processes, Class 6

Transport terminals

see Commercial buildings

Tunnels

see Ancillary buildings

Turnstiles

see Doors



U

Ultimate limit states see Structure, limit states Universities

see Communal non-residential	
Unprotected areas	C/AS1 3.14.3, 3.14.6, 5.1.1 b), 7.1.2 d), 7.3, 7.4.1 a),
	7.4.2, 7.5.2 to 7.5.6, 7.5.8, 7.6.4, 7.7.1, 7.7.3, 7.7.5,
	Step 2 and Step 3, 7.8.9, 7.8.10 c), 7.9.10, 7.9.11,
	7.9.13, Figures 7.3 to 7.5, Tables 7.2 to 7.4
fire resisting glazing (Type B)	C/AS1 5.8.2 a), 7.4.1 a),
	7.4.2 to 7.4.4, Figure 7.4, Table 7.1
small openings (Type A)	C/AS1 7.4.1 a), 7.4.2, 7.4.4, Figure 7.4
uPVC pipe	G13/AS3 1.0
Urinals E3/AS1 3	3.3, 3.3.6; G1/AS1 2.3, 6.1.1, Table 1; G13/AS1 Table 2
	3.3, 3.3.6; G1/AS1 2.3, 6.1.1, Table 1; G13/AS1 Table 2 G1/AS1 2.3.1, 2.3.3, 2.3.5
bowl urinals	
bowl urinalscontinuous wall urinals	G1/AS1 2.3.1, 2.3.3, 2.3.5
bowl urinals continuous wall urinals discharge system	G1/AS1 2.3.1, 2.3.3, 2.3.5 G1/AS1 2.3.1, Figure 3
bowl urinals	G1/AS1 2.3.1, 2.3.3, 2.3.5 G1/AS1 2.3.1, Figure 3 G1/AS1 2.3.2
bowl urinals	G1/AS1 2.3.1, 2.3.3, 2.3.5 G1/AS1 2.3.1, Figure 3 G1/AS1 2.3.2 G1/AS1 2.3.5 to 2.3.8, Table 5
bowl urinals	G1/AS1 2.3.1, 2.3.3, 2.3.5 G1/AS1 2.3.1, Figure 3 G1/AS1 2.3.2 G1/AS1 2.3.5 to 2.3.8, Table 5 G1/AS1 2.3.8 G1/AS1 2.3.8 G1/AS1 2.3.1, 2.3.5
bowl urinals	G1/AS1 2.3.1, 2.3.3, 2.3.5 G1/AS1 2.3.1, Figure 3 G1/AS1 2.3.5 to 2.3.8, Table 5 G1/AS1 2.3.8



Vacuum relief valves	
Vehicles	NZBC/D1.1, D1.2.2, D1.3.1 (d) (e), D1.3.5, G14.3.2 (b);
car parking aroas	D1/AS1 10.0, G14/VM1 1.8, 2.1.5; G15/AS1 3.0.10
	spaces
, ,	D1/AS1 10.1, 10.2.1
	D1/AS1 11.0.2
Vent pipes G12/AS	61 6.3.2, 6.8; G13/AS1 5.2, Figures 5 to 8, 10 and 12, Table 5;
	G13/AS2 Figures 5 and 6
	G13/AS1 5.2, Figures 5 to 8, 10 and 11, Tables 5 and 6
	G12/AS1 6.8.2 d)
	G12/AS1 6.9.1; G13/AS1 5.5 to 5.7, Figures 5 to 8, 10 and 11
	G12/AS1 6.8.3
termination	G12/A51 6.6.2 C), G13/A51 5.7.3, Figure 12
Ventilation	G4; NZBC/H1.3.1 (b); C/AS1 6.9.6; E3/AS1 1.0.1, 1.2;
airflow control	
air handling systems	G4/AS1 1.3.1 b)
air purity	NZBC/G4.3.1; G4/VM1 2.0
bacteria, pathogens and a	lergens NZBC/G4.3.2
balconies, bridges and ope	en stairways
car park	G4/AS1 1.3.2
contaminated air	
discharge	G4/AS1 1.3.1 f)
disposal	NZBC/G4.3.4
removal	NZBC/G4.3.3
	rking
drains	G13/AS2 4.0, Figures 4 to 6, Table 3
extract ventilation	G4/AS1 1.3.1 c)
fixed combustion appliance	es
flues	G4/AS1 2.3, 2.4
gas burning appliances	C/AS1 9.2.2
gas-fuel appliances	
maximum occupancy	NZBC/G4.2
mechanical ventilation sys	tems NZBC/C3.3.7, G4.3.2; G4/AS1 1.3, 2.2
natural	G4/AS1 1.2, 2.1
natural smoke ventilation	
see Fire safety precau	utions
number of air changes	NZBC/G4.3.1
	C/AS1 9.3.2
outdoor air supply	NZBC/G4.3.1; G4/AS1 1.3.1 a) d)
	sure
prevention of internal mois	stureNZBC/E3.3.1
rate	G4/VM1 1.0.1
recirculated air systems	G4/AS1 1.3.1 e)
·	C/AS1 6.9.6 to 6.9.10
solid fuel appliances	
Vermin-proofing	E2/AS1 9.1.8.3
Vibrations	

see Structure



W

WallsNZBC/B2.3.1 (a), C3.3.1, C	C3.3.5, E2.3.2, E2.3.3, E3.3.4, E3.3.5, G6.3.1;
	3.10.6, 6.12.1, 6.12.6, 6.16.2, 6.18.5 c), 6.20.3,
6.20.4 (d) f), 6.20.5, 6.20.6, 6.20.11, 6.20.15 a), 7.8.9,
	7.9.5, 7.9.18, Table 6.2;
	C/AS1 6.18.4, Figures 6.11 and 6.12
	C/AS1 6.18.4, 7.9.14, Figure 6.11
	NZBC/E2.3.2
see also Unprotected areas	
•	
	NZBC/C3.3.1
·	1, 6.3.2 f), 6.19.9, 6.19.10, 6.19.11, Figure 6.13
wall assemblies	G6/AS1 1.0.3, Figure 2
Wall/Roof junctions	
see Roof/wall junctions	
•	
Wall claddings	
	E2/AS1 9.1.6, Figure 81
	E2/AS1 9.1.4, Table 23
	E2/AS1 9.1.3, Table 18, Figure 65
	E2/AS1 9.1.3.6
9	E2/AS1 9.1.3.3, Table 18
	E2/AS1 9.1.3.1, Figure 132
	E2/AS1 9.1.3.5, Table 18
	E2/AS1 9.1.3.2, Table 18
	E2/AS1 9.1.3.4, Table 18, Figure 65
- · · · · · · · · · · · · · · · · · · ·	E2/AS1 9.1.7, Table 23, Figure 71
building wrap to wall openings	E2/AS1 9.1.5, Figure 72
drained cavities	E2/AS1 9.1.8
cavity battens	E2/AS1 9.1.8.4
	E2/AS1 9.1.8.1
	E2/AS1 9.1.8.2, Table 23, Figures 66 and 67
	E2/AS1 9.1.8.3, Figure 66
wall framing behind cavities	E2/AS1 9.1.8.5
general	E2/AS1 9.1
limitations	E2/AS1 9.1.1, Table 3
maintenance	E2/AS1 9.1.2
penetrations	E2/AS1 9.1.9
inter-storey junctions	E2/AS1 9.1.9.4, Figure 70
other cavity penetrations	E2/AS1 9.1.9.2
	E2/AS1 9.1.9.1
	E2/AS1 9.1.9.3, Figures 68 and 69
windows and doors	E2/AS1 9.1.10
	E2/AS1 9.1.10.7
head flashings	E2/AS1 9.1.10.4, Table 7, Figure 71
jamb flashings	E2/AS1 9.1.10.6, Table 7
scope	E2/AS1 9.1.10.1
	E2/AS1 9.1.10.2, Figure 72
window heads	E2/AS1 9.1.10.3, Figure 71
window sills	E2/AS1 9.1.10.5, Table 7
Warehouses	
see Industrial buildings	
· ·	
Warning Systems	F7
see also Alarm systems	
combined fire detection and warning syste	em NZBC/F7.3
Wash-down areas	G3/AS1 2.3
Washing machines	
see Sanitary appliances	
see sama y appliances	



Waste chutes see Solid Waste

Waste disposal units......NZBC/G15.3.3; G13/AS1 Figure 2, Table 2

Waste pipes

see Discharge pipes, Pipes

Water

see External Moisture, Foul Water, Internal Moisture, Surface Water,

see External Moisture, Foul W Water Supplies	ater, Internal Moisture, Surface Water,
installation	
storage water heaters see Storage water heaters	
wet back water heaters	
Water main	
Water seals	1.1 c), Figure 2; G13/AS1 1.0.3, 3.2.1, Figure 1, Table 1, G13/AS2 3.3.1 d)
· ·	E3/AS1 3.0
	E3/AS1 3.2.2, Figure 3
	E3/AS1 3.2.2, Figure 3 E3/AS1 3.1, Figure 1
9	E3/AS1 3.1, Figure 1
	E3/AS1 3.3.1 to 3.3.5, Figures 4 and 5
	E3/AS1 3.2.2, Figure 3
	E3/AS1 3.2.2, Figure 3
urinals	E3/AS1 3.3.6
Water Supplies	G12
access for maintenance	NZBC/G12.3.6 (d)
•	NZBC/G12.3.6 (e)
	G3/AS1 1.1.4
9	NZBC/G12.2
	NZBC/H1.2, H1.3.4; H1/AS1 5.0
not mixing devices	
9	G12/AS1 6.14.2, Figure 16
, ,	
isolation of system	NZBC/G12.3.6 (e)
leakage	NZBC/G12.3.6 (c)
laundries	G2/AS1 1.1.1, 1.1.2
mains	G12/AS1 3.1.1, 3.2.1 b), 5.1.1
•	NZBC/G12.3.2; G12/AS1 4.1
	NZBC/G12.3.9
potable water	NZBC/G12.3.1, G12.3.6 (a), G14.3.2 (c);
	G12/AS1 3.0; G14/VM1 1.6.2
	NZBC/G12.1 (b), G12.3.7 (a) NZBC/G12.2, G12.3.3, G12.3.5, G12.3.6 (b)
, , , ,	NZBC/G12.2, G12.3.3, G12.3.5, G12.3.6 (b)
· · · · · · · · · · · · · · · · · · ·	
	NZBC/G12.3.7, G12.3.8
see also Storage water heat	
	G12.1 (b) (c), G12.3.3 to G12.3.5, G12.3.7 (b), G12.3.8



•	
	G12/AS1 7.3.3
	G12/AS1 7.1.3, Table 7
	G12/AS1 7.2
·	
	G12/AS1 5.2
•	G12/AS1 2.2.2 a)
· · · · · · · · · · · · · · · · · · ·	
watertightness	G12/AS1 7.5
Water tanks	
see Tanks	
Water traps	G13/AS1 3.0, Figure 1
dimensions	
location	G13/AS1 3.3
multiple outlets	
MC none	G1/AS1 2.1, 3.1.1, 4.2.2, Figures 4 to 6, Table 1;
VVC paris	G13/AS1 3.2.1, Figures 1 and 6, Tables 2 and 5,
cisterns	G1/AS1 3.2.1, Figures 1 and 6, Tables 2 and 5,
	G1/AS1 6.2, Figure 11
<i>•</i> ,	
Weather stops	D1/AS1 1.3.2
Weatherboards	
see Timber weatherboards and fibre co	ement weatherboards
VA/a atha atha ha a a a	FO. 1/844 4 0 FO. 1804 0 4 0 4 4
vveatnertigntness	E2/VM1 1.0, E2/AS1 2.1, 8.1.1
Weathertightness risk factors	E2/AS1 3.0
establishing the risk	E2/AS1 3.1, Figure 1
building envelope risk matrix	Table 2
examplesE2/A	S1 3.4, 3.4.1, 3.4.2, 3.4.3, Tables 4-6, Figures 2-4
	E2/AS1 3.1.1, Table 1
risk score	E2/AS1 3.1.2, Table 2
	E2/AS1 3.2
wall claddings	E2/AS1 3.3, Table 3
M/h ara Duranana	
Whare Runanga	L. L
see Communal non-residential, assem	bly service
Wharenui	H1/VM1 1.1.1
Wheelchairs	D1/AS1 7.0.1
see also People with disabilities, Acce	•
	NZBC/D1.3.4 (b) (d) (e)
WITEGICTIAL ACCESS	
Wind	
see Structure, loads	
Wind barriers	E2/AS1 2.5
54111010	



Windows and doors......B1/VM1 12.0; C/AS1 3.1.4, 6.20.4 c); E2/AS1 9.1.10, 9.2.6, 9.3.11, 9.5.4, 9.6.9.7, 9.7.7, 9.8.8, 9.9.9, Figure 76; **E3/AS1** 1.3.1; F4/AS1 1.2.3, 4.0; G7/AS1 1.0.1 to 1.0.3, 2.0.1, Figures 1 and 2; G15/AS1 3.0.4, 3.0.6 see also Natural Light fire windows see Glazing head flashings **E2/AS1** 9.1.10.4, Table 7, Figure 71 vertical profiled metal...... **E2/AS1** 9.6.8.6, Figures 95 and 100 window heads **E2/AS1** 9.1.10.3, Figure 71 windows – cavity..... **E2/AS1** 9.4.7, 9.5.4.2, 9.7.7.2, 9.8.8.2, 9.9.9,Figures 85, 86, 91, 116 and 128 windows – direct fixed...... **E2/AS1** 9.4.6, 9.5.4.1, 9.7.7.1, 9.8.8.1, 9.9.9, Figures 81-84, 90, 115 and 127 G2/AS1 Table 1; G3/AS1 1.0.1

see also Communal residential, community service