

Requesting information about means of escape from fire for existing buildings



In 2012 new fire protection clauses for the New Zealand Building Code, C1 to C6 Protection from Fire, replaced the existing clauses C1 to C4 Fire Safety. These were supported with a new set of Acceptable Solutions C/AS1 – C/AS7 and a Verification Method C/VM2. After an initial transition period, the new clauses, Acceptable Solutions and Verification Method took full effect from 10 April 2013.

Published on 2 December 2013

1st edition

Of interest to Territorial Authority, Building consent authorities

ISBN: 978-0-478-41709-8 (Online)

Introduction

One of the main reasons for these changes was that existing fire safety clauses were not specific enough, making it difficult for Building Consent Authorities (BCAs) and Territorial Authorities (TAs) to determine the levels of performance building work should achieve to comply with the New Zealand Building Code. As a result, there were differences of interpretation between BCAs and TAs on the one hand and building consent applicants on the other.

The new fire protection framework has made this clearer. However, there is still some uncertainty about the type and extent of information required to determine the Building Code compliance of existing buildings' means of escape from fire when new building work (such as additions and alterations) is proposed. There have also been some challenges applying Acceptable Solutions C/AS1 – C/AS7 and Verification Method C/VM2 to assess this.

Therefore MBIE, with industry support and input, has developed this additional guidance to apply to existing buildings.

Please note that this is a guide only. It does not replace the BCAs or TAs' decision-making process and authority regarding building consents, including those required by the Building Act 2004.

Intended audience

This guide is mainly for BCAs and TAs to help decide how much information to request about existing buildings as part of the building consent application, so they can then determine Building Code compliance relating to means of escape from fire. This guide:

- highlights key factors relating to the existing building and proposed building work
- provides a building score sheet for the key factors
- lists information you might consider asking for, depending on the total building score.

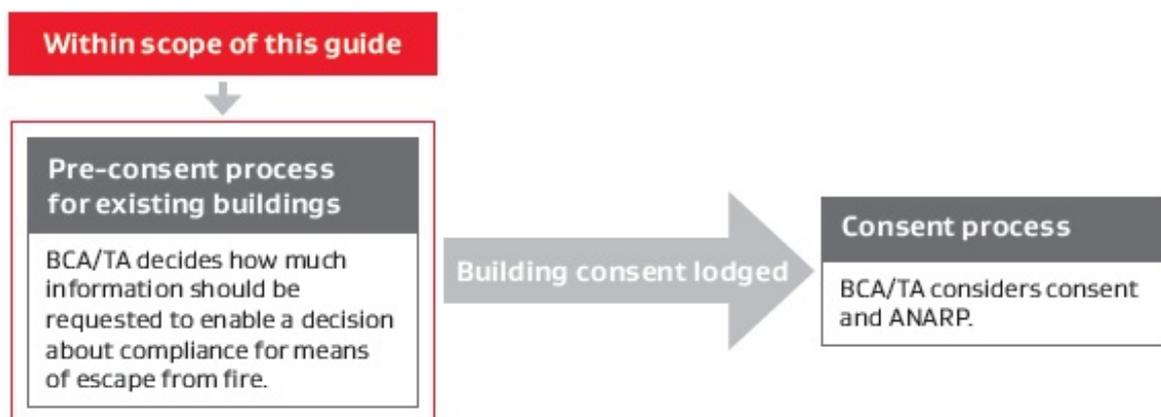
This guide will also be of interest if you are a building owner or building professional, such as an:

- architect or designer
- chartered professional engineer
- other appropriately qualified licensed building practitioner.

This guide will give you some idea of the information your BCA or TA may request with your building consent application. However, we still recommend you talk to the relevant authority well before applying.

As this is a guide only, it does not guarantee what a BCA or TA will actually require.

Within scope of this guide



Note: This guide contains advice on how much information to request about existing buildings with any building consent application, to determine Building Code compliance relating to means of escape from fire. It does not

address the actual decision BCAs or TAs must make about any building consent application, including those required by the Building Act.

- It does not help a BCA and/or TA decide if any proposed building work complies with the Building Code.
- It does not act as a substitute for the 'as nearly as is reasonably practicable' (ANARP) test for means of escape from fire, as required by sections 112, 115 and 116A of the Building Act.

Note that BCAs are responsible for decisions under section 112(1), while TAs are responsible for decisions under sections 112(2), 115 and 116A.

Context

The Building Act 2004 and the Building Code

The Building Act provides the basic legal framework for building work. The Building Code, in Schedule 1 of the Building Regulations 1992, provides most of the technical requirements for building in New Zealand. All building work must comply with the Building Code.

Building consents

As a general rule, all new building work requires a building consent. Section 41 of the Building Act describes when a building consent is not required. This includes the exemptions listed in Schedule 1 of the Building Act. Building owners are responsible for determining whether or not their proposed work requires a building consent. This guide is only applicable if the owner (or someone on behalf of the owner) is applying for a building consent.

[Check if you need consents \(https://www.building.govt.nz/projects-and-consents/planning-a-successful-build/scope-and-design/check-if-you-need-consents/\)](https://www.building.govt.nz/projects-and-consents/planning-a-successful-build/scope-and-design/check-if-you-need-consents/) has more about whether the proposed building work will require a building consent.

Alterations to existing buildings and means of escape from fire

Under section 112 of the Building Act, a BCA must not grant a building consent to alter all or part of an existing building unless it is satisfied that, after the alteration, the building will (among other things) comply as nearly as is reasonably practicable (ANARP) with the Building Code provisions relating to means of escape from fire. Section 112 of the Building Act also gives TAs some powers to allow alterations to existing buildings.

The definition of 'means of escape from fire' in the Building Act covers:

- continuous unobstructed routes of travel from any part of the floor area of that building to a place of safety; and
- includes all active and passive protection features required to warn people of fire and to assist in protecting people from the effects of fire in the course of their escape from the fire.

Note: To alter, in relation to a building, is defined in the Building Act as including to rebuild, re-erect, repair, enlarge, and extend the building.

Examples include:

- fire-rated walls, doors, floors and ceilings anywhere on the escape route
- the internal surface finishes of walls, ceilings and floors
- escape route lengths and their capacity
- fire detection and alarm systems that warn people of a fire and initiate their escape
- suppression systems that control fire and stop it spreading from its source
- visibility in escape routes
- wayfinding systems including signs.

The relevant Building Code requirements for means of escape from fire are contained in:

- C3.4 Fire affecting areas beyond the fire source
- C4 Movement to place of safety
- D1 Access
- F6 Visibility in escape routes
- F7 Warning systems
- F8 Signs.

To determine whether an existing building will comply ANARP with Building Code requirements for means of escape from fire after the proposed building work has been carried out, BCAs and TAs will need information on the building's current level of compliance.

As nearly as is reasonably practicable (ANARP) explained (<https://www.building.govt.nz/managing-buildings/change-of-use-and-alterations/anarp/>)

Our recommended approach

We recommend you take the following approach to help establish what information you require with the building consent application:

1. consider the key factors
2. [complete the building score sheet \(https://www.building.govt.nz/building-code-compliance/c-protection-from-fire/c-clauses-c1-c6/means-of-escape/appendix-1-building-score-sheet/\)](https://www.building.govt.nz/building-code-compliance/c-protection-from-fire/c-clauses-c1-c6/means-of-escape/appendix-1-building-score-sheet/)

3. check the score against [Recommended information requirements – means of escape from fire \(Table 1\)](https://www.building.govt.nz/building-code-compliance/c-protection-from-fire/c-clauses-c1-c6/means-of-escape/downloadpdf#tab1) (<https://www.building.govt.nz/building-code-compliance/c-protection-from-fire/c-clauses-c1-c6/means-of-escape/downloadpdf#tab1>) and decide what information to ask for.

Consider the key factors

We recommend focussing on these key factors:

- likelihood of the existing building complying
 - building age
 - information held by the BCA or TA
- extent of the proposed building work
 - minor
 - moderate
 - significant
- potential consequences of the building not complying
 - building importance level
 - presence of sleeping facilities.

Likelihood of the existing building complying

We have identified two useful indicators for determining the likelihood of a building complying with current Building Code requirements relating to means of escape from fire. These are both:

- building age
- information held on the building by the BCA and/or TA.

Building age

Using the age of a building as a starting point, we have categorised existing buildings into three groups based on when the building work was approved:

- from 1 June 2001 onwards (the date when the current Building Code levels of safety took effect)
- between 1 January 1993 and 31 May 2001, and
- on or before 31 December 1992 (when building and construction was regulated by individual councils).

Note: We have taken 1 June 2001 as the date when the current Building Code levels of safety were first set. That is when a new Acceptable Solution, C/AS1, was adopted following a major revision of the existing approved documents for fire.

That Acceptable Solution effectively set the default level of safety given the non-specific nature of the Building Code clauses in effect at the time (C1 to C4 Fire Safety, which were replaced in April 2012 by the current clauses).

We consider it reasonable to assume that existing buildings approved from 1 June 2001 onwards are Code compliant unless there is information relating to the building showing that this is not the case (e.g. unconsented building work, or where a Code Compliance Certificate has not been issued).

Furthermore, for all buildings approved after 10 April 2013, the current Building Code clauses C1 to C6 Protection from Fire and associated Acceptable Solutions C/AS1 – C/AS7 and Verification Method C/VM2 were in place and were likely to have been used to demonstrate compliance with Building Code requirements for means of escape from fire. Records of this should be on the building file.

Note: In this guide, we use the term 'approved' to mean a building approved for construction via:

- a building permit (up until 31 December 1992)
- a building consent (from 1 January 1993)
- or any other legal mechanism in force at the time of the approval.

Information held on the building by the BCA or TA

Relevant information held on the building file may include:

- the original building consent
- details of any additions or alterations
- Code Compliance Certificates
- details of Compliance Schedules and Building Warrant of Fitness certification
- a full or partial assessment of the building's means of escape from fire
- any other information relevant to the building's particular circumstances that should be taken into account.

Building owners may also hold relevant information about an existing building's compliance. This may be accepted by a BCA and/or TA, placed on the building file, and then taken into account.

Note: We use the term 'full assessment' to mean one which includes an audit of all active and passive fire prevention systems and features needed to comply with Building Code requirements related to means of escape from fire, including the information and engineering analysis that demonstrates compliance.

A full assessment must include the whole building rather than being limited to a particular part of the building. A partial assessment is an assessment that does not include the whole building.

The assessment should take into account whether or not work was done to upgrade the building as a result of any previous assessment.

Extent of the proposed building work

Taking the extent of the proposed building work into consideration is about being pragmatic. It is helpful to think of the building work as minor, moderate or significant, in the context of affecting the means of escape from fire.

We consider that it is reasonable for BCAs and TAs to assume that:

- Minor building work typically either:
 - affects no more than 20 percent of the footprint of any single building floor where work is occurring on only one floor, or no more than 10 percent of the footprint of a single building floor where work is occurring on multiple floors, or

- involves an extension of no more than 20 percent of the original floor area, and
 - includes any repair of an existing building that has been damaged for some reason, and
 - includes a structural upgrade (for example, of an earthquake-prone building), and
 - does not affect the building's entry or egress routes or any shared cooking areas.
- Examples of minor building work using this definition could be:
 - the refit of all bathrooms or meeting rooms in a multi-storey office; as long as the area being refitted is no more than 10 percent of the footprint of any single floor
 - structural repairs to an earthquake damaged building
 - a tenancy fit-out in a shopping mall that does not affect the escape routes.
 - This definition would not include the refit of kitchens that are shared cooking facilities (as distinct from kitchens in individual apartments).
 - Moderate building work:
 - is work not covered by the definitions of either minor or significant building work. It may include additions to a building – either additional wings or storeys – as long as this work does not meet any of the criteria for 'significant building work'.
 - Significant building work typically:
 - affects a full floor or more of a multiple level building and/or affects stairs or vertical escape paths
 - may include the amalgamation of two or more buildings
 - includes any work resulting from a building subdivision, change of use of a building, or area affected by the building work as defined by the Building (Specified Systems, Change the Use, and Earthquake-prone Buildings) Regulations 2005.

Potential consequences of the building not complying

Building Code clause A3 Building Importance Levels divides buildings into five categories that reflect the potential consequences of their non-compliance.

At one end of the scale, importance level 1 buildings are defined as those buildings which pose a low risk if they fail: this includes ancillary buildings and outbuildings not designed for human habitation. At the other end of the scale, importance level 5 buildings are those buildings which pose a catastrophic risk to a large area or to a large number of people if they fail.

We suggest you consider the building's importance level and, for importance Level 1 to 3 buildings, the presence of any sleeping facilities.

Complete the score sheet

Taking these key factors into consideration, add up what you know about the existing building and proposed building work.

You can use the score sheet in Appendix 1: Building score sheet, which allocates points to key factors. Tally the

points to get an overall building score.

Decide what information to ask for

The last step is to decide what information you want the building owner to provide with the building consent application. Check the overall building score against Table 1: Recommended information requirements – means of escape from fire for suggestions. However, note that it is also important to consider the individual circumstances of an existing building. Also, remember that building work approved after 10 April 2013 probably involved the use of Acceptable Solutions C/AS1 – C/AS7 or Verification Method C/VM2 to demonstrate Code compliance. This should be recorded on the building file.

Table 1: Recommended information requirements – means of escape from fire

Score*		Recommended information
0-11	List of fire safety features Statement of changes	<p>This could be a simple list of the building's existing fire safety features and a statement of what will change as a result of the building work. Additionally, there could be a comparison with the features and systems specified in the latest design documentation.</p> <p>The building owner should not typically be required to include a gap assessment against any current Acceptable Solutions C/AS1 – C/AS7 or to use the Verification Method C/VM2 to assess his/her building unless this is considered necessary given the individual circumstances of the building.</p>
12-19	Gap assessment using the appropriate Acceptable Solution from C/AS1 – C/AS7	<p>It is reasonable to request a gap assessment of the existing building's means of escape from fire unless the individual circumstances of the building suggest otherwise.</p> <p>The gap assessment should:</p> <ul style="list-style-type: none"> • use the appropriate Acceptable Solution from C/AS1 – C/AS7 • highlight where the existing building fully complies with the Acceptable Solution • highlight where there are gaps between the building's fire systems and features and the requirements of the Acceptable Solution • for each gap, assess whether ANARP is achieved and give options to improve the compliance in this respect • cover the entire building. <p>A gap assessment using an Acceptable Solution can be undertaken for complex, existing buildings even if they have features that do not comply with the Acceptable Solution. For example, a building may have more than one intermediate floor or one floor that is larger than permitted in the Acceptable Solution. In this case, the gap assessment should highlight where the existing building complies with the appropriate Acceptable Solution and where there is any gap.</p>

20+	<p>Full assessment using:</p> <ul style="list-style-type: none"> • an appropriate Acceptable Solution from C/AS1 – C/AS7, or • relevant parts of the Verification Method and other Acceptable Solutions 	<p>It may be appropriate to request a full assessment of the existing building's mean of escape from fire unless the individual circumstances of the building suggest otherwise. If the building design, system and features fall entirely within the scope of one of the Acceptable Solutions C/AS1 – C/AS7, this can be used to identify and quantify any gaps between the features and systems required to comply with Building Code requirements for means of escape from fire and those existing in the building.</p> <p>If the building falls outside the scope of these Acceptable Solutions for means of escape from fire, regardless of the extent of the non-compliance, the assessment should be made against the Building Code clauses C3.4 and C4 using the process described in the Verification Method C/VM2. The Acceptable Solutions D1/AS1, F6/AS1, F7/AS1 and F8/AS1 should be used to develop the analysis for D1, F6, F7 and F8 components of means of escape.</p>
-----	---	---

*Total score for the existing building from [Appendix 1: Building score sheet \(https://www.building.govt.nz/building-code-compliance/c-protection-from-fire/c-clauses-c1-c6/means-of-escape/appendix-1-building-score-sheet/\)](https://www.building.govt.nz/building-code-compliance/c-protection-from-fire/c-clauses-c1-c6/means-of-escape/appendix-1-building-score-sheet/)

Appendix 1: Building score sheet

Complete this score sheet to get a total score for the existing building (refer to Consider the key factors for further information). You can then use [Table 1: Recommended information requirements – means of escape from fire](https://www.building.govt.nz/building-code-compliance/c-protection-from-fire/c-clauses-c1-c6/means-of-escape/introduction/) (<https://www.building.govt.nz/building-code-compliance/c-protection-from-fire/c-clauses-c1-c6/means-of-escape/introduction/>) to help you decide how much information you might typically request as part of the building consent process.

Building score sheet			
Type	Key factors	Points	Score
Likelihood of existing building complying	Building age		
	Approved from 1 June 2001 onwards	0	
	Approved between 1 January 1993 and 31 May 2001	1	
	Approved on or before 31 December 1992	3	
	Information held on the building by the BCA or TA (Score one of these only and choose the most comprehensive assessment)		
	For buildings approved from 1 June 2001: no consents made	0	
	Full building assessment on file dated 1 June 2001 or later	2	
	Full building assessment on file dated on or before 31 May 2001	4	
	One or more partial building assessments on file	6	
	No assessment on file for building additions or alterations	8	
	Unable to determine history of building	8	
Extent of proposed work	Extent of the proposed building work		
	Minor	0	
	Moderate	3	
	Significant	6	
Potential consequences of not complying	Building importance level		
	Level 1	0	
	Level 2	4	
	Level 3	8	
	Level 4 and Level 5	12	
	Additional points for building level 1, 2 or 3 with sleeping facilities	4	
	Total score to use with table 1		

Appendix 2: Resources

Building Act 2004 (<http://www.legislation.govt.nz/act/public/2004/0072/latest/DLM306036.html>) and Building Regulations 1992 (<http://www.legislation.govt.nz/regulation/public/1992/0150/latest/DLM162570.html>) on the New Zealand Legislation website.

C1-C6 Protection from Fire (<https://www.building.govt.nz/building-code-compliance/c-protection-from-fire/>)

A3 - Building importance levels (<https://www.building.govt.nz/building-code-compliance/a-general-provisions/a3-building-importance-levels/>)

Check if you need consents for advice on building consents (<https://www.building.govt.nz/projects-and-consents/planning-a-successful-build/scope-and-design/check-if-you-need-consents/>)

Clause C1-C6 Protection from Fire, Acceptable Solutions C/AS1 - 7 and Verification Method C/VM2 (<https://www.building.govt.nz/building-code-compliance/c-protection-from-fire/c-clauses-c1-c6/>)

D1 – Access routes (<https://www.building.govt.nz/building-code-compliance/d-access/d1-access-routes/>)

F6 – Visibility in escape routes (<https://www.building.govt.nz/building-code-compliance/f-safety-of-users/f6-visibility-in-escape-routes/>)

F7 – Warning systems (<https://www.building.govt.nz/building-code-compliance/f-safety-of-users/f7-warning-systems/>)

F8 – Signs (<https://www.building.govt.nz/building-code-compliance/f-safety-of-users/f8-signs/>)



**MINISTRY OF BUSINESS,
INNOVATION & EMPLOYMENT**
HĪKINA WHAKATUTUKI

New Zealand Government

This information is published by the Ministry of Business, Innovation and Employment's Chief Executive. It is a general guide only and, if used, does not relieve any person of the obligation to consider any matter to which the information relates according to the circumstances of the particular case. Expert advice may be required in specific circumstances. Where this information relates to assisting people:

- with compliance with the Building Act, it is published under section 175 of the Building Act
- with a Weathertight Services claim, it is published under section 12 of the Weathertight Homes Resolution Services Act 2006.