



Determination 2019/062

Regarding the means of escape from fire from a new dwelling located behind an existing dwelling at 220 Clyde St, Wellington



Figure 1: The new dwelling and northern path

Summary

This determination concerns a new dwelling constructed at the rear of a site with an existing dwelling, and compliance of the new dwelling in relation to movement to a place of safety in the event of a fire. The matter at issue is whether the escape route to a safe place for the occupants of the rear dwelling required a protected path past the existing dwelling.

1. The matters to be determined

- 1.1 This is a determination under Part 3 Subpart 1 of the Building Act 2004 (“the Act”) made under due authorisation by me, Katie Gordon, Manager Determinations, Ministry of Business, Innovation and Employment (“the Ministry”), for and on behalf of the Chief Executive of the Ministry.¹
- 1.2 The parties to this determination are:
 - N Blackmore, owner of the two dwellings (“the applicant”), acting through an agent (“the agent”)
 - Wellington City Council carrying out its duties as a territorial authority or building consent authority (“the authority”).

¹ The Building Act and Building Code are available at www.legislation.govt.nz. The Building Code is contained in Schedule 1 of the Building Regulations 1992. Information about the Building Act and Building Code is available at www.building.govt.nz, as well as past determinations, compliance documents and guidance issued by the Ministry.

- 1.3 This determination arises from the authority's concerns about means of escape from fire for a new dwelling ("the new dwelling") at the rear of the applicant's property. Access to and from this dwelling is via a path on the north side of the existing dwelling located at the front of the property ("the existing dwelling").
- 1.4 The authority does not consider the new dwelling complies with Building Code Clause C4 Movement to a place of safety by way of Acceptable Solution C/AS1². In considering the application for a building consent to construct this dwelling, the authority requested an alternative design proposal for compliance with Clause C4³. The authority then granted a building consent which included upgrading the fire rating of one of the existing dwelling's external walls adjacent to the southern pathway⁴. The applicant has questioned the authority's decision-making in this respect.
- 1.5 Accordingly, the matters to be determined⁵ are:
- whether the new dwelling complies with Clause C4 by way of Acceptable Solution C/AS1 without upgrading the fire rating of an external wall of the existing dwelling on the same lot
 - whether the authority was correct in its purported or proposed refusal to grant building consent for the new dwelling unless the fire rating of the external wall of the existing dwelling was upgraded.
- 1.6 In making my decision I have considered the parties' submissions and the other evidence in this matter. Because these matters concern fire safety I have also consulted with Fire and Emergency New Zealand (FENZ) as required under section 170 of the Act.
- 1.7 Appendix A contains relevant extracts from the legislation and the Acceptable Solution C/AS1.

2. The building work

- 2.1 The property contains two single-storey detached dwellings sited on flat land that are under the same ownership. The property is long and narrow, being about 9.3m wide (across the street frontage) by about 48m long, and appears fully fenced apart from access to carparking areas at the street front.
- 2.2 The new dwelling, which is the subject of this determination, is located 1.2m from the rear (western end) of the property. It has an area of 30.6m² and comprises a single bedroom, bathroom and open plan kitchen/living area. It is timber framed with board and batten cladding, and has corrugated profile metal roofing.
- 2.3 The external door from the new dwelling leads from the living area onto a 10m² wooden deck. There are two sets of steps from this deck to ground level: one leading to the rear of the property and the other to a brick path located along the property's northern boundary (refer to figure 1).

² Acceptable Solutions and Verification Methods are produced by the Ministry and, if followed, must be accepted by a building consent authority as evidence of compliance with the Building Code. Other means of compliance are known as alternative solutions.

³ References to clauses in this determination are to clauses of the Building Code and to sections are to sections of the Building Act, unless otherwise stated.

⁴ Though the original plans submitted with the consent show a pathway along the southern side of the existing dwelling out to the street, this the agent has subsequently confirmed the actual position of the garage would mean this path is not suitable as a means of egress.

⁵ Under sections 177(1)(a), 177(1)(b) and 177(2)(a) of the Act.

- 2.4 The existing dwelling is at the front (eastern end) of the property, set back about 6m from the footpath. Most of the space between this dwelling and the footpath is taken up by a new concrete car-pad and a single garage. The existing dwelling spans most of the width of the property and extends back about 22m.
- 2.5 Between the new and existing dwellings is an area of about 130m² (as marked on the consented plans⁶). This appears to be mostly flat lawn with a small amount of garden. The distance between the two dwellings is about 14m.
- 2.6 With respect to fire safety, drawing WD 01 of the consented plans identifies the smoke alarms to be installed at the new dwelling as Type 1 (domestic smoke alarm) with hush and test buttons. It marks the pathway between the northern side of the existing dwelling and boundary fence as the “primary access way” for the new dwelling, and the southern pathway as the “secondary egress way”. I will refer to these pathways as “the northern pathway” and “the southern pathway”. The width of the pathways is 1.05m and 0.85m respectively.
- 2.7 On the southern side, the consented plans show a gap between the garage and the boundary, with access to the footpath continuing in a straight line past the garage’s southern wall to the street front (see figure 2 below).

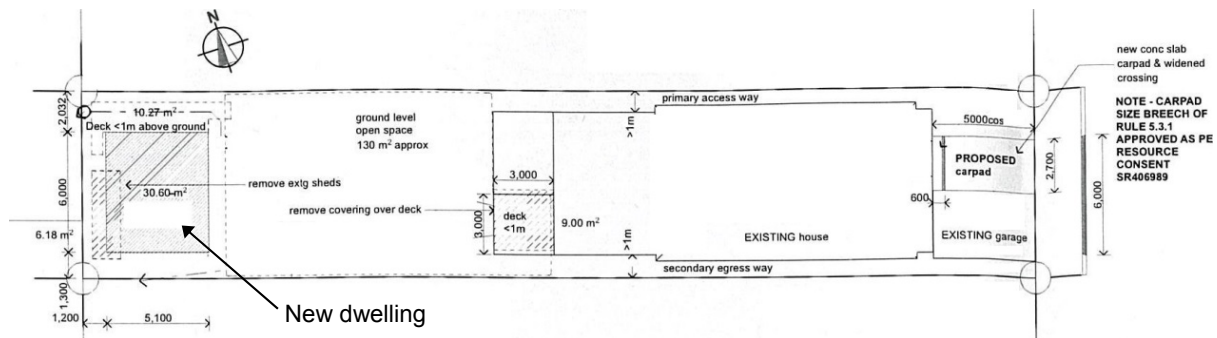


Figure 2: Site plan showing approximate locations of the dwellings and the pathways (based on the consented plans)

- 2.8 However, after receiving the application for determination and viewing images of the property online it was apparent to me that the garage wall is against the boundary fence. In response to a request to clarify the location of the garage and the proposed means of egress and proposed fire-rating, the agent provided an updated site plan. See Figure 3 below. It is clear from this that the southern pathway is not able to be used for access to/from the new dwelling.

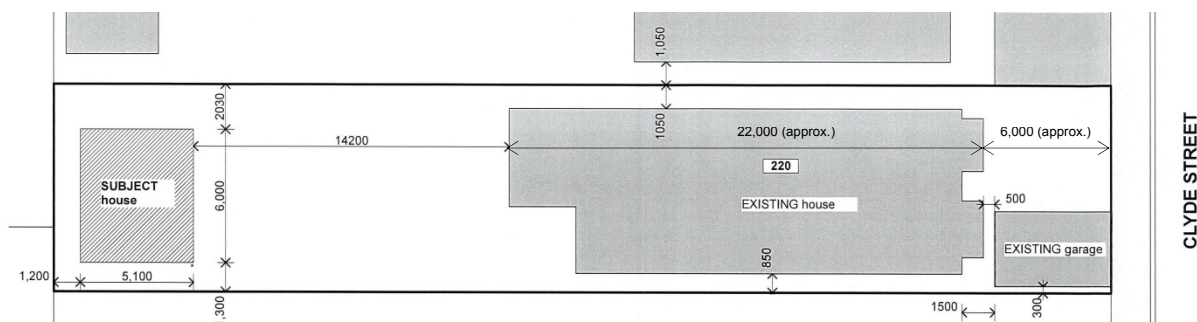


Figure 3: Revised site plan with correction to location of garage

⁶ Drawing WD 01, Revision B, 29 November 2018 and Drawing WD 02, WCC RFI 181213.

3. Background

- 3.1 In late 2018 the agent, who is a registered architect, designed the new dwelling for the applicant. A building consent application (SR 420203) was submitted to the authority to construct this dwelling as well as a new concrete car-pad at the front of the property.
- 3.2 On 5 November 2018 the authority asked for more information regarding means of escape from fire for the new dwelling. The authority said, in summary:
- Acceptable Solution C/AS1⁷ was the elected means of compliance with Clauses C1-C6 Protection from fire, and under C/AS1 the new dwelling could be served by a single escape route.
 - However, in the authority's view design in accordance with C/AS1 required the "external escape route safe path" to be either:
 - "separated by distance" from the existing dwelling, or
 - "protected from the existing dwelling with compliant fire separations".
 - The authority considered the minimum separation by distance was as specified in Acceptable Solution C/AS2⁸ paragraph 3.11.2(a)(i). The authority interpreted this paragraph to mean the route from the new dwelling to the footpath (which the authority referred to as the "escape route") must be at least 2m from the external walls of the existing dwelling.
 - The authority said this minimum separation was not achievable given the existing dwelling's proximity to the boundaries. It concluded that "an alternative solution may be required" and said any alternative solution would require confirmation from FENZ⁹.
- 3.3 Despite the agent's views that fire rating was not required, on 13 December 2018 the agent replied to the authority's request for information proposing to upgrade the fire rating of the existing house:
- It is proposed to create a protected external escape route on the south side of the existing house. The existing house walls will be upgraded with an internal one-way 30min fire rated wall.
- 3.4 The agent provided relevant plans and specifications to support this proposal, including:
- drawing WD 02 marked "existing house – FRR upgrade". WD 02 provides an outline of the existing dwelling and identifies the southern pathway as "escape path from proposed [new dwelling]". This drawing also shows a fire rating upgrade to the southern wall of the existing dwelling to "new 30 min one way fire wall linings" and replacement of the windows in that wall with "30 min rated fire window"
 - manufacturers' information sheets for the new wall linings and windows.

⁷ Acceptable Solution C/AS1 "Acceptable Solution for Buildings with Sleeping (residential) and Outbuildings (Risk Group SH) For New Zealand Building Code Clauses C1-C6 Protection from Fire", Amendment 4, effective from 1 January 2017.

⁸ Acceptable Solution C/AS2 "Acceptable Solution for Buildings with Sleeping (non-institutional) (Risk Group SM) for New Zealand Building Code Clauses C1-C6 Protection from Fire", Amendment 4, effective from 1 January 2017 to 31 October 2019. Examples of buildings that fall within Risk Group SM are apartments, education accommodation, and transient accommodation such as hotels, motels, and backpackers.

⁹ I am not aware whether any such consultation was carried out.

- 3.5 On 19 December 2018 the authority granted building consent for this work, with the consented plans including the versions of drawings WD 01 (for the new dwelling and car-pad) and WD 02 (for the fire rating upgrade of the existing dwelling) as described above.
- 3.6 Building work on the new dwelling went ahead, and on 20 May 2019 the authority carried out a final inspection. The associated site notice recorded this inspection as failed. Outstanding items included a handrail for “entry steps” and various supporting documents that were still required. It is not clear to me from the information received, whether any work to upgrade the fire rating on the external wall of the existing dwelling has been carried out.
- 3.7 Following clarification about who could apply for a determination on these matters, I accepted the application for determination on 22 August 2019.

4. Submissions

- 4.1 The agent provided a submission on the applicant’s behalf, and other information including:
- the authority’s requests for information regarding the building consent application and responses to these (26 October – 13 December 2018)
 - the authority’s 19 December 2018 letter of approval for the building consent, consented drawings WD01 and WD 02 and information sheets for the fire rated wall linings and windows, and the 21 May 2019 site notice of the final inspection
 - a photograph of the new dwelling.
- 4.2 In the submission the agent said the authority’s request for information regarding means of escape from fire was addressed by the proposed fire rating upgrade to the existing dwelling after consulting with the authority’s processing officer and the applicant. The agent stated:
- This was done in the knowledge that it satisfied the [request for information] and enabled approval of the consent, but that a determination would likely follow to address what is known to both [the agent] and [the authority] to be a ‘grey area’.
- 4.3 The agent considered the two dwellings were clearly within the SH risk group¹⁰ for which C/AS1 was the relevant Acceptable Solution. The agent wanted the determination to consider whether the authority had processed the building consent correctly by applying criteria from an Acceptable Solution for another risk group, i.e. from C/AS2¹¹. The agent understood that design in accordance with an Acceptable Solution must be accepted as code-compliant¹², so in the agent’s opinion the authority had either erred in requiring the fire rating upgrade of the existing house or there was an issue with C/AS1 as a means of compliance.

¹⁰ The relevant risk groups are defined in Part 1 of C/AS1 and other Acceptable Solutions for Clauses C1-C6 Protection from fire.

¹¹ Unless otherwise noted in this determination, references to C/AS2 are to C/AS2 amendment 4, in force 1 January 2017 - 31 October 2019. A new expanded version of C/AS2 that combines CAS2 – C/AS7 took effect on 27 June 2019 and from 31 October 2019 is the only document in use for the relevant risk groups.

¹² Under section 19(1)(b) of the Act, a building consent authority must accept compliance with an Acceptable Solution as establishing compliance with the Building Code.

- 4.4 In the agent's view the design of the new dwelling as originally submitted for building consent complied with C/AS1 with two underlying premises:
- it should be possible to comply with one Acceptable Solution without recourse to another Acceptable Solution for the same Building Code clauses
 - the intent of providing means of escape from fire for the SH risk group was to escape from a single fire in the subject building, meaning in this case a protected path was not required for the occupants of the new dwelling past the existing dwelling.
- 4.5 The agent referred to a relevant BRANZ guide¹³ and C/AS1 Part 3¹⁴ to support the view that the intent of Clause C4 and of C/AS1 as a means of compliance was to provide safe means of escape from the building that was on fire:
- Thus, under Part 2¹⁵ the [new dwelling] has Type 1 smoke detection, under Part 3 the [new dwelling] has an escape route of a length that complies with C/AS1 Table 3.2, Part 4 fire separations are not applicable, and Part 5 External fire spread is addressed by greater than 1m external wall distances to all relevant or notional boundaries.
- It is considered that these fire safety precautions enable the occupants of the [new dwelling] to escape a fire in their building, and from there proceed to a safe place.
- 4.6 The agent understood the authority's view to be that requirements for means of escape extended to escaping from a fire in any building and/or from multiple fires, i.e. that occupants of the new dwelling must be able to escape past the existing dwelling if it is on fire in order to reach a safe place.
- That fact that they are in a separate building, separated by distance to an extent well in excess of the code, and should therefore not be at risk of external fire spread, does not seem relevant to [the authority's] position.
- 4.7 The agent said the implications of the authority's view was that buildings on neighbouring properties also had to be considered when considering means of escape for detached dwellings in the SH risk group. This raised further questions such as whether a new or altered building on neighbouring property could render a previously considered escape route as non-compliant. The agent suggested that such situations must have been taken into account when developing the Acceptable Solutions, but they must have been considered not relevant for the SH risk group.
- 4.8 On 22 August 2019 I asked the applicant to provide a site plan showing the two dwellings and the approximate distances between these and to the boundaries. That information was received on 18 October 2019.
- 4.9 The authority acknowledged the application for determination, but did not provide a submission in response.
- 4.10 A draft of this determination was issued to the parties and FENZ for comment on 30 October 2019.
- 4.11 The authority and the applicant accepted the draft without further submissions in responses received on 11 November 2019.

¹³ Guide to the Acceptable Solutions: Protection from Fire, BRANZ, issue 1, September 2015, Section 2 – New Zealand Building Code objectives.

¹⁴ C/AS1 Part 3 Means of escape from fire.

¹⁵ I take all references to Parts to be to Parts of C/AS1.

- 4.12 FENZ provided comment by email on 20 November 2019. FENZ accepted the conclusion reached in the draft as it reflected the scope and application of C/AS1, but noted that it does have broader concerns with regards to multiple dwellings on one site and in particular where there are narrow non-fire protected routes past the dwelling and/or less open space between the dwellings.

5. Discussion

5.1 The legislation and means of compliance

- 5.1.1 The objectives of the Building Code clauses for protection from fire (C1-C6) are stated in Clause C1 as:

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

- 5.1.2 Clause C4 concerns movement to a place of safety, and its functional requirements include:

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

- 5.1.3 The term “place of safety” is defined in Clause A2 as:

- (a) a *safe place*; or
- (b) a place that is inside a building and meets the following requirements [specified in sub clauses (i) through (iv)]

The term “safe place” is defined in Clause A2 as:

a place of safety in the vicinity of a *building*, from which people may safely disperse after escaping the effects of a *fire*. It may be a place such as a street, open space, public space or an *adjacent building*^{16]}

- 5.1.4 Clause C4’s performance requirements include:

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

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

...

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

- 5.1.5 The authority’s concerns centre on the means of escape of the occupants of the new dwelling past the existing dwelling. However, the Building Code’s objectives regarding means of escape to a place of safety concern escape from a fire in the subject building (the new dwelling in this case). I also note that requirements for spread of fire to other property and the requirement for buildings to be constructed so that there is a low probability of injury or illness to persons not in close proximity to a fire source are addressed by Clause C3 Fire affecting areas beyond the fire source.

¹⁶ Adjacent building, as defined in Clause A2, means “a nearby *building*, including an adjoining *building*, whether or not erected on *other property*”.

5.1.6 One way, but not the only way, to demonstrate compliance with the requirements of Clause C4 is to design to an Acceptable Solution. When building consent for the new dwelling was being applied for and considered, the Acceptable Solutions for compliance with the C clauses were C/AS1- C/AS7¹⁷. Each Acceptable Solution corresponds to a “risk group” (as described in paragraph 1.1.1 and Table 1.1 of each document) and must only be used for that risk group (paragraph 1.2). If the uses of all or part of a building cover more than one risk group then more than one Acceptable Solution must be followed to demonstrate compliance (paragraph 1.1).

5.2 Whether the new dwelling complies with Clause C4 via C/AS1

5.2.1 The first matter for me to consider is whether the new dwelling complies with Clause C4 by way of C/AS1 without upgrading the fire rating of the existing dwelling.

5.2.2 I start by considering whether C/AS1 is the applicable Acceptable Solution or whether any others apply. The authority and the agent consider that the new dwelling (and the existing dwelling) falls within risk group SH, which covers houses, townhouses, small multi-unit dwellings and outbuildings. I agree with this view. Further, I am of the view there are no other uses of all or part of the new dwelling that fall within any other risk group. As C/AS1 is the Acceptable Solution for risk group SH, it follows that this is the applicable Acceptable Solution for the new dwelling.

5.2.3 As the agent correctly notes, design in accordance with an Acceptable Solution must be accepted by a building consent authority as complying with the relevant Building Code clause or clauses¹⁸. Therefore, the authority must accept design in accordance with C/AS1 as complying with the C clauses, including Clause C4. Further, the authority cannot require the design to meet any additional or more onerous criteria that may be contained in other Acceptable Solutions, such as C/AS2, as the new dwelling is outside their scope.

5.2.4 The following table provides definitions of some key terms that arise in considering this matter. C/AS1 includes some of these definitions (with the comments also included below where relevant) and refers to the New Zealand Building Code Handbook (“NZBC Handbook”)¹⁹ for others.

Term	Definition	Source
Escape route	A continuous unobstructed route from any <i>occupied space</i> in a <i>building</i> to a <i>final exit</i> to enable occupants to reach a <i>safe place</i> , and shall comprise one or more of the following: <i>open paths</i> and <i>safe paths</i> *. * <i>Protected paths</i> are included in the definition of <i>escape route</i> in Clause A2.	C/AS1 Clause A2
Final exit	The point at which an <i>escape route</i> terminates by giving access to a <i>safe place</i> .	Clause A2
Safe place	A place, outside of and in the vicinity of a single <i>building</i> unit, from which people may safely disperse after escaping the effects of a <i>fire</i> . It may be a place such as a street, open space, public space or an <i>adjacent building</i> .	C/AS1

¹⁷ As noted earlier, C/AS2 – C/AS7 have since been combined into a new C/AS2, effective from 27 June 2019. C/AS1 remains unchanged.

¹⁸ Under section 19 of the Act.

¹⁹ Available at www.building.govt.nz.

Term	Definition	Source
Open space	Means land on which there are, and will be, no <i>buildings</i> and which has no roof over any part of it other than overhanging eaves.	Clause A2
Open path	That part of an <i>escape route</i> (including <i>dead ends</i>) within a <i>firecell</i> where occupants may be exposed to <i>fire</i> or smoke while making their escape.	C/AS1
Dead end	That part of an <i>open path</i> where escape is possible in only one direction. COMMENT: a dead end ceases to exist where the escape route reaches a point in the <i>open path</i> which offers alternative directions of travel, or at a final exit or an exitway.	C/AS1
Safe path	That part of an exitway which is protected from the effects of fire by fire separations, external walls, or by distance when exposed to open air	NZBC Handbook

5.2.5 C/AS1 Part 3: Means of escape concerns compliance with the requirements of Clause C4. Part 3 says, in effect:

- The new dwelling can be served by a single escape route as long as the travel distance on a dead end open path does not exceed 25m and the travel distance on the total open path does not exceed 60m (paragraphs 3.2, 3.4 and Table 3.2). The relevant distances are determined by the type of alarm system in the new dwelling, which is Type 1.
- There are no restrictions on the height or width of this escape route other than those required by other clauses of the Building Code.

5.2.6 I now consider whether the means of escape from fire for the new dwelling is in accordance with Part 3 of C/AS1; i.e. whether there is at least one escape route from this dwelling that is a continuous unobstructed route to a final exit enabling occupants to reach a safe place that does not exceed the maximum distances specified.

5.2.7 There is a continuous, unobstructed route enabling the occupants of the new dwelling to reach a safe place outside and within the vicinity of the new dwelling. The space between the two dwellings, which is about 130m², provides a space where the occupants of the new dwelling can escape the effects of fire by moving up to 14m away from the dwelling and from there disperse via the northern pathway to the street. Accordingly, I consider that the route is an escape route for the purposes of C/AS1.

5.2.8 The authority has not indicated a concern regarding the travel distances, and based on the consented plans it appears that the travel distance on the dead end open path is less than 25m and the total open path less than 60m. I do not need to consider the width or height of these escape routes for the purposes of C/AS1, as this Acceptable Solution makes it clear (in paragraph 3.3) that there are no limitations for risk group SH. Accordingly, I consider there is at least one escape route from the new dwelling that meets the criteria in C/AS1.

5.2.9 In summary, it is my view that the design of the new dwelling as originally submitted for building consent, without upgrading the external wall of the existing dwelling, is in accordance with C/AS1 with respect to compliance with Clause C4.

5.3 Regarding the authority's decision to issue the building consent

5.3.1 The second matter to be determined concerns the authority's decision making with respect to the building consent for the new dwelling. C/AS1 was the stated means of compliance. However, in its request for information, the authority refers to criteria in C/AS2 such as minimum widths for escape routes as a reason for concluding the design is not, and cannot be, in accordance with C/AS1.

5.3.2 As already stated, I consider that C/AS1 is the only applicable Acceptable Solution that is relevant in this case. The scope of each of the Acceptable Solutions for the C Clauses (C/AS1 – C/AS7) is explicit in these documents, and it is not appropriate to take criteria from another Acceptable Solution corresponding to another risk group and apply this in the manner the authority suggested in this case.

5.3.3 I consider the authority incorrectly applied criteria from C/AS2 to its assessment of the new dwelling design. This led the authority to the erroneous conclusion that the design could not be in accordance with C/AS1 and an alternative design proposal was necessary in order to achieve compliance with Clause C4 of the Building Code.

5.3.4 I note that the criteria relating to means of escape from fire for risk group SH are less onerous than for other risk groups precisely because there is a lower risk associated with these buildings (i.e. houses, townhouses, small multi-unit dwellings and outbuildings) and their relatively small number of occupants. I also note that the decision to require less onerous criteria for risk group SH has been reinforced by the recent review of the Acceptable Solutions, which revised and combined C/AS2 – C/AS7 into a new Acceptable Solution C/AS2 but left C/AS1 unchanged.

6. The decision

6.1 In accordance with section 188 of the Building Act 2004 I hereby determine that:

- the new dwelling complies with Building Code Clause C4 by way of Acceptable Solution C/AS1 without upgrading the fire rating of an external wall of the existing dwelling on the same lot
- the authority's purported or proposed decision to refuse to grant building consent for the new dwelling without upgrading the fire rating of the external wall of the existing house was incorrect.

Signed for and on behalf of the Chief Executive of the Ministry of Business, Innovation and Employment on 9 December 2019.

Katie Gordon
Manager Determinations

Appendix A: Extracts from the legislation and means of compliance

The relevant sections of the legislation, Building Code, and Acceptable Solutions include the following:

A1 Building Act 2004

19 How compliance with building code is established

- (1) A building consent authority must accept any or all of the following as establishing compliance with the building code:
 - (a) compliance with regulations referred to in section 20:
 - (b) compliance with an acceptable solution:
 - (ba) compliance with a verification method:
 - (c) a determination to that effect made by the chief executive under subpart 1 of Part 3:

...

A2 New Zealand Building Code, Clause C

Clause C1 - Objectives of clauses C2 to C6 (protection from fire):

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

Clause C4 - Movement to place of safety

Functional requirement

C4.1 Buildings must be provided with:

effective means of giving warning of fire, and
visibility in escape routes complying with clause F6.

Performance

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

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

fractional effective dose of carbon monoxide greater than 0.3:

a fractional effective dose of thermal effects greater than 0.3:

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

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

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

A3 Acceptable Solution C/AS1 for risk group SH

Part 1: General**1.1 Introduction and scope**

This Acceptable Solution can be used for establishing compliance with NZBC C1 to C6 Protection from Fire. It is one of a suite of Acceptable Solutions C/AS1 to C/AS7, each of them corresponding to a risk group (summarised in Table 1.1 and defined in Paragraph 1.1.1).

If the uses of a building, or part of a building, cover more than one risk group, one or more of these Acceptable Solutions may need to be followed to demonstrate compliance. Paragraph 1.2 explains how to determine the relevant risk groups for the building activities.

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Scope

1.1.1 The scope of this Acceptable Solution is restricted to risk group SH. This covers buildings where people sleep including multi-unit residential with some restrictions on height and outbuildings (as described in Clause A1 7.0 of NZBC). This includes the following:

Single household units

...

Part 3 Means of escape**3.1 THIS PARAGRAPH DELIBERATELY LEFT BLANK****3.2 Number of escape routes**

Risk group SH may be served by a single escape route provided the permitted dead end open path distance specified in Paragraph 3.4 is not exceeded.

3.3 Height and width of escape routes

There are no restrictions (other than those required by other Building Code Clauses) on the height and width of escape routes for risk group SH.

3.4 Length of escape routes

An escape route in outbuildings may be any length, but the lengths of dead ends and total open paths in other buildings to which this Acceptable Solution applies shall not exceed the distances given in Table 3.2.

	Type 1 system only	NZS 4514 Interconnected Smoke Alarms	NZS 4517 Sprinkler system with Type 1 (in single household units only)	NZS 4515 Sprinkler system with Type 1	NZS 4515 Sprinkler system and NZS 4512 Smoke detection system
<i>Dead end open path</i>	25 m	35 m	35 m	40 m	50 m
<i>Total open path</i>	60 m	75 m	75 m	90 m	120 m

For definition of system types, see Table 2.1.

If systems are installed in order to extend permissible travel distance in accordance with this table and are not a requirement of Paragraph 2.2.1 then Fire Service connection is not required.