



## Determination 2017/063

# Whether a barrier is required for a retaining wall to a residential property at 47 Carlingford Rise, Dinsdale, Hamilton

### Summary

This determination considers whether a barrier is required to a retaining wall in order to comply with Clause F4 safety from falling, and the authority's intention to issue a notice to fix. The determination also discusses whether building work completed after the code compliance certificate was issued required building consent or whether it was exempt.



### 1. The matter to be determined

- 1.1 This is a determination under Part 3 Subpart 1 of the Building Act 2004<sup>1</sup> (“the Act”) made under due authorisation by me, John Gardiner, Manager Determinations and Assurance, Ministry of Business, Innovation and Employment (“the Ministry”), for and on behalf of the Chief Executive of the Ministry.
- 1.2 The parties to the determination are:
- the owner of the building, N Warriner (“the applicant”)
  - Hamilton City Council (“the authority”), carrying out its duties as a territorial authority or building consent authority.
- 1.3 This determination arises from the proposed decision of the authority to issue a notice to fix regarding the lack of a barrier to a retaining wall. The authority is not satisfied that the building work complies with Clause<sup>2</sup> F4 – Safety from falling of the Building Code (First Schedule, Building Regulations 1992).
- 1.4 The matter to be determined<sup>3</sup> is whether the authority is correct in proposing to issue a notice to fix. In making this decision I must consider whether a barrier is required to the retaining wall to comply with Clause F4.

<sup>1</sup> The Building Act, Building Code, compliance documents, past determinations and guidance documents issued by the Ministry are all available at [www.building.govt.nz](http://www.building.govt.nz) or by contacting the Ministry on 0800 242 243.

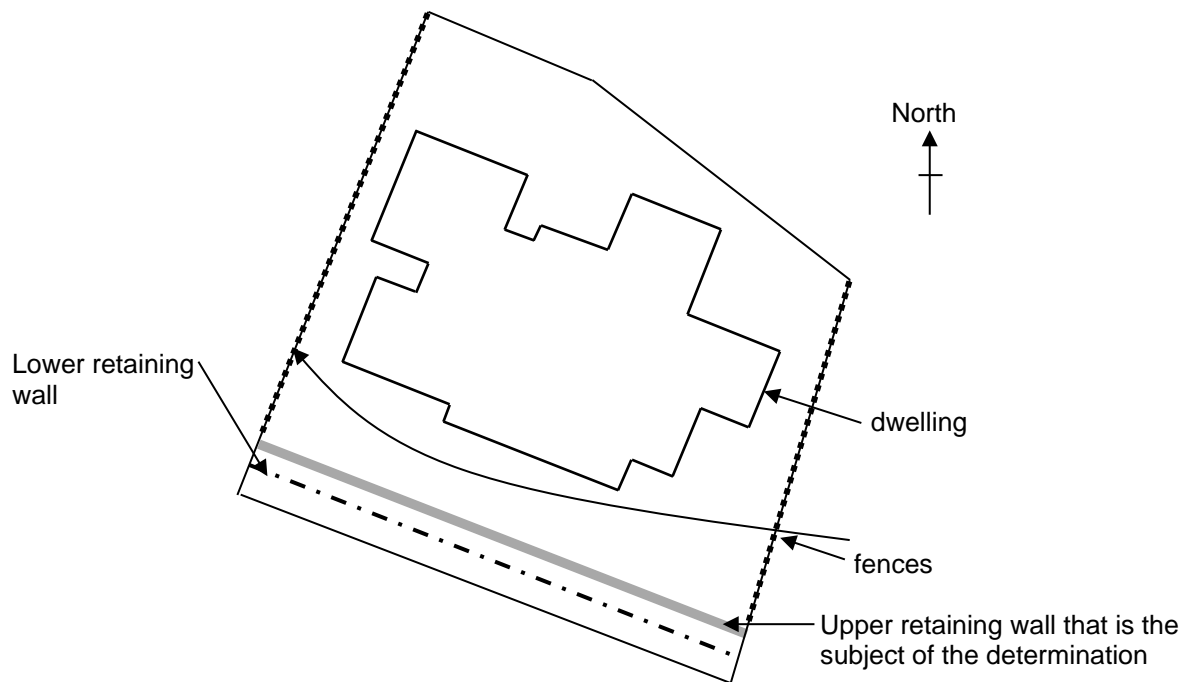
<sup>2</sup> In this determination, references to sections are to sections of the Act and references to clauses are to clauses of the Building Code.

<sup>3</sup> Under sections 177(1)(b) and 177(2)(f) of the Act

1.5 In making my decision, I have considered the submissions of the parties, and the other evidence in this matter.

## 2. The building work and background

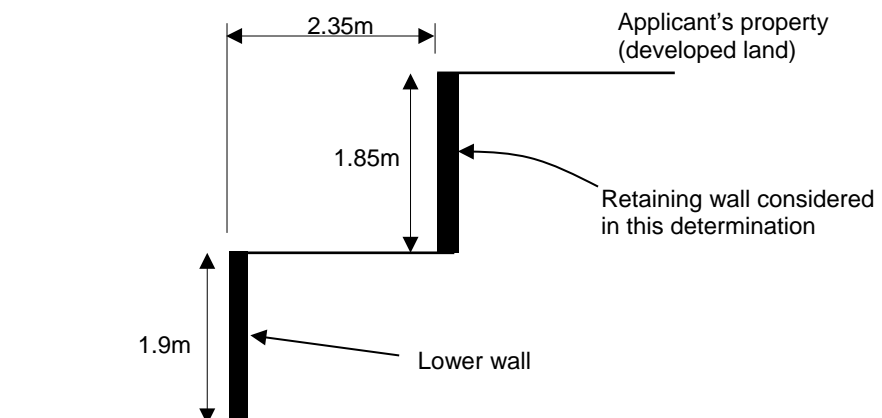
2.1 The timber retaining wall that is the subject of this determination is one of two retaining walls that were constructed adjacent to the southwest boundary when the site was first subdivided. A new dwelling was later constructed under separate consent from the retaining walls.



**Figure 1: Outline of site (not to scale)**

2.2 The timber retaining walls are constructed as follows:

- the upper wall has a height of 1.85m (the proposed notice to fix relates to this wall), and there is a level area below this wall that is 2.35m wide
- the lower wall has a height of 1.9m



**Figure 2: Diagram of timber retaining wall (not to scale)**

- 2.4 Building consent No. 2015/33400 for the “new dwelling and attached garage” was issued by the authority on 20 January 2016. The consented drawings identify a “Safety rail/Fence 1.1m high to retaining areas over 1.0m high as per NZBC F4” is required to the upper retaining wall.
- 2.5 A code compliance certificate was issued by the authority on 29 July 2016 for the dwelling and garage.
- 2.6 Subsequently the authority observed that the barrier to the upper wall was not constructed in accordance with the consent and entered into discussion with the applicant regarding achieving compliance with Clause F4.
- 2.7 On 24 February 2017, the applicant emailed the authority to record a phone conversation they had regarding the fencing to the upper wall, and provided excerpts from Determination 1999/012<sup>4</sup>. The applicant took the view that a barrier was not required, and said that hedge planted along the upper wall would effectively separate the lawn area from the wall.
- 2.8 In an email to the applicant dated 1 March 2017 the authority said that until the hedge is ‘compliant with Clause F4’, a temporary fence will need to be installed. The authority gave the applicant a deadline for this work and noted that failure to do install a barrier would result in a notice to fix. The authority also noted that the applicant could seek a determination on the matter.
- 2.9 The Ministry received an application for a determination on 6 March 2017.

### **3. The submissions**

#### **3.1 The initial submissions**

- 3.1.1 The applicant included a submission with the application that included excerpts from paragraph 1.25 of F4/AS1<sup>5</sup>, and references from Determination 1999/012. The applicant outlined their reasoning that a barrier is not required as follows:
- The retaining wall is on a “domestic property with familiar users”.
  - The retaining wall is located behind the house, away from a pathway or area for “public gathering” and not adjacent to a path to the house.
  - The house is fenced at either end of the retaining wall.
  - A freshly-cultivated garden has been provided along the edge of the upper wall providing 0.7m separation between the wall and the lawn.
- 3.1.2 In response to a request for further information, the applicant advised that the retaining wall was already built at the time the applicant purchased the section, and the plants adjacent to the retaining wall will become one long hedge.
- 3.1.3 The authority acknowledged the determination on 19 April 2017, but made no submission in response. The authority provided relevant documents from building consent No. 2015/33400, including the code compliance certificate.

#### **3.2 The draft determinations and submissions received in response**

- 3.2.1 A first draft determination was issued to the parties for comment on 15 May 2017. The first draft concluded that although the upper retaining wall required a barrier that

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<sup>4</sup> Determination 99/012: The requirement for a safety barrier on a retaining wall (Building Industry Authority), 12 October 1999

<sup>5</sup> Acceptable Solutions F4 Safety from Falling

was compliant with Clause F4, the authority was incorrect to propose to issue a notice to fix because a code compliance certificate had already been issued for the building work.

- 3.2.2 The authority responded on 29 May 2017 and provided the final inspection results and photographs that showed a temporary barrier had been installed at the date of the inspection. (I note that this information was not included in the documents supplied by the authority prior to the draft being issued).
- 3.2.3 While the applicant had not yet responded to the first draft determination, I considered that the new information provided by the authority would affect my decision. Consequently, I issued a second draft determination to the parties for comment on 21 June 2017.
- 3.2.4 The second draft determination maintained the view that the upper wall required a barrier to comply with Clause F4, but concluded that the authority was correct to propose to issue the notice to fix on the basis that building work had been carried out after the code compliance certificate had been issued. The draft also considered the building work to install or remove the barrier required building consent.
- 3.2.5 The authority accepted the second draft determination without further comment on 22 June 2017.
- 3.2.6 The applicant responded to the second draft determination on 20 July 2017. The applicant did not accept the second draft and made the following comments (in summary):
- The draft lacked any reference to Determination 1999/012, which stated the “need for a fence may not be necessary where there is a cultivated garden that will provide separation”, and noted there is no specific width requirement for such a garden.
  - The applicant did not have any children aged under the age of six, and will not receive any visitors who have children under that age. (See paragraph 4.2.4)
  - If the applicant was to sell the house, then he would erect a fence if the planting had not grown sufficiently to satisfy the authority.
- 3.2.7 In response to the applicant’s reference to Determination 1999/012, I note the passage referred to forms part of a submission from a party to that determination, and is not taken from the argument supporting the determination’s decision. Unlike this case, Determination 1999/012 considered an undeveloped site where the precise nature of any future development was not reasonably foreseeable.

## **4. Discussion**

### **4.1 Legislation and the Acceptable Solution**

4.1.1 The objective of F4.1 is to safeguard people from injury caused by falling. The functional requirement F4.2 states “Buildings shall be constructed to reduce the likelihood of accidental fall.

4.1.2 The relevant performance requirement is Clause 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.

(The limitations to this clause do not apply in this instance)

- 4.1.3 Where there is a fall of 1m or more, Clause F4.3.4 requires barriers to:
- (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 ...
  - (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.
- 4.1.4 Acceptable Solutions can be used as a means of establishing compliance with the Building Code, meaning that if F4/AS1 is satisfied then the barrier will comply with Clause F4. Paragraph 1.2.5 of F4/AS1 states that “When a barrier is provided on a retaining wall, it shall comply with Paragraphs 1.1 and 1.2”: these paragraphs refer to minimum barrier heights and construction requirements (see Appendix A).

## **4.2 Is a barrier required to the retaining wall?**

- 4.2.1 When the upper retaining wall was constructed, a barrier was not required because the land was vacant. As discussed in Determination 1999/012, where land is vacant and the type of future development is not reasonably foreseeable it would be too onerous for an owner to provide barrier for a potential risk that could occur in the future.
- 4.2.2 The consented drawings for the house show the existing timber retaining walls built when the site was subdivided and note the need for a ‘safety rail/fence 1.1m high to retaining areas over 1.0m high...’ I note it is unclear as to how the “safety rail/fence” was to comply with Clause F4 because no details were provided in the consent documents.
- 4.2.3 I must first consider whether a barrier is required to the retaining wall. Clause F4.3.1 states that a barrier is required where there is a sudden change of level within or associated with a building. The upper retaining wall has a fall of well in excess of 1 metre and runs along the edge of a lawn area at the rear of the house. The lawn is an area that is closely associated with the house, and, in the normal course of events it is expected to be used by the occupants of the house and by people visiting the property. A barrier is therefore required to reduce the likelihood of an accidental fall from the upper retaining wall.
- 4.2.4 In general, children are likely to frequent any household at some time in its life. Though a current owner or tenant may not have children or be likely to have friends or family with children visit, houses in New Zealand change ownership comparatively frequently and current ownership cannot be considered as a factor in the assessment of compliance. That is why F4/AS1 requires safety barriers that will restrict the passage of children in any building having the classified use “Housing”.
- 4.2.5 Accordingly I conclude that a barrier is required to the retaining wall to reduce the likelihood of accidental fall, and the barrier needs to restrict the passage of children younger than six years of age.

### 4.3 The hedge and use of temporary barriers

4.3.1 The applicant has planted a hedge that will grow to between 1 – 2m in height and maintains the view that this will meet the requirement for a barrier to the retaining wall. In the Table below I have discussed the requirements for barriers in Clause F4.3.4 and my comments on whether the hedge would comply.

The requirements of Clause F4.3.4	My comments
(a) Be continuous and extend for the full extent of the hazard	The hedge is shown extending the entire length of the retaining wall.
(b) Be of appropriate height	Currently the hedge is at a height lower than what is required to satisfy F4/AS1. However, when the hedge is mature it will be between 1 - 2m in height.
(c) Be constructed with adequate rigidity	At present the hedge is separate plants, but eventually it will grow to approximately 1m in thickness and is planted so that there will be minimal space between the fully grown plants.
(d) Be of adequate strength to withstand the foreseeable impact of people and, where appropriate, the static pressure of people pressing against them	Once mature, the hedge will be able to withstand static pressure. Significant momentum would be required to fall through the hedge's intended 700mm in width.
(e) Be constructed to prevent people from falling through them	If the hedge is grown with no gaps present it will be able to prevent people from falling through.
(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	When mature and depending on the size of gaps between the base of the hedge and the ground – the hedge may be adequate in restricting the passage of children.

4.3.2 In assessing the hedge against the requirements of Clause F4.3.4, I have come to the view that once the hedge is established and mature it could provide an adequate barrier to the top of the retaining wall. However, there is no guarantee that the hedge will grow sufficiently and maintain its mass to comply with Clause F4 for the period required. Should there be any gaps at the base of the hedge or loss of mass, the hedge would not comply with Clause F4. I note there are other design options available to ensure compliance with Clause F4 is achieved. If the applicant proposes to rely on the hedge as a barrier once it is mature, a temporary barrier would be required to the top of the retaining wall until the hedge is of sufficient height and rigidity to comply with Clause F4.

4.3.3 I note that the lower retaining wall, although not the subject of this determination, has a fall that is 1m or more and would normally require a barrier. However, in this instance once barrier to the upper retaining wall is in place a barrier to the lower wall will not be required because this area will then be inaccessible; the fencing extends to the edge of the retaining wall and there is no other access to the space (see Figure 1).

#### 4.4 The proposed notice to fix

4.4.1 The authority proposed to issue a notice to fix regarding the lack of a barrier to the retaining wall. The relevant legislation for issuing a notice to fix is section 164, which states:

- (1) This section applies if a responsible authority considers on reasonable grounds that—
  - (a) a specified person is contravening or failing to comply with this Act or the regulations (for example, the requirement to obtain a building consent); or...
- (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...

4.4.2 When the authority issued the code compliance certificate for the building, it confirmed that it was satisfied on reasonable grounds that the building work complied with the building consent.

4.4.3 In this case it appears that after the issue of the code compliance certificate, the applicant removed the temporary barrier to the upper retaining wall, thereby altering the building.

4.4.4 Section 8 defines what a building is and what it includes:

...building—

- (a) means a temporary or permanent movable or immovable structure...

4.4.5 Section 40 states (emphasis added):

Buildings not to be constructed, altered, demolished, or removed without consent

- (1) A person must not carry out any building work except in accordance with a building consent...

4.4.6 The Act defines 'building work' as (emphasis added):

...work for, or in connection with, the construction, alteration, demolition, or removal of a building...

4.4.7 Although the barrier was considered temporary, it still is within the definition of 'building', and the removal of the barrier constitutes 'building work'.

4.4.8 In some circumstances a building consent is not required, including when the building work is exempt under Schedule 1. Schedule 1(21) provides for building work in connection with a fence that does not exceed 2.5m in height above the supporting ground to be carried out without obtaining building consent. I am of the view that the removal of the temporary barrier was building work that was exempt from the requirement to obtain building consent.

4.4.9 However, under section 17 of the Act all building work must comply with the Building Code to the extent required by the Act whether or not a building consent is required for that work. The removal of the barrier was building work that altered the building (in this case the retaining wall) such that the building no longer complies with the Building Code.

4.4.10 Accordingly there are reasonable grounds for the authority to issue a notice to fix in this case as the building work fails to comply with Clause F4 of the Building Code, contravening section 17.

## **4.5 Conclusion**

- 4.5.1 There is a fall of 1.0m or more from the upper retaining wall and a safety barrier is required to comply with Clause F4.
- 4.5.2 While a code compliance certificate was issued by the authority, the applicant subsequently carried out work to remove the temporary barrier which is work that altered the building. While the building work was exempt from the requirement to obtain a building consent, it altered the retaining wall to the extent that the retaining wall no longer complied with Clause F4.
- 4.5.3 I consider there are reasonable grounds for the authority to issue a notice to fix because the building work does not comply with Clause F4.

## **5. The decision**

- 5.1 In accordance with section 188 of the Building Act 2004, I hereby determine that the upper retaining wall requires a barrier to comply with Clause F4 and the authority was correct to propose to issue a notice to fix to the owner in respect of the noncompliance with Clause F4.

Signed for and on behalf of the Chief Executive of the Ministry of Business, Innovation and Employment on 8 August 2017.

John Gardiner  
**Manager Determinations and Assurance**



## Appendix A

A1. The relevant paragraphs from Acceptable Solution F4/AS1 include:

### 1.0 Barriers in Buildings

#### 1.1 Barrier heights

1.1.1 Minimum barrier heights are given in Table 1.

##### COMMENT:

Refer to NZBC Clause D1 for *handrails* on stairs. *Handrails* can be constructed as an integral part of a barrier.

#### 1.2 Barrier construction

1.2.1 In housing and other areas likely to be frequented by children under 6 years of age:

- a) Figures 1-4 show acceptable barrier constructions
- b) Openings anywhere over the full height of the barrier shall be such a size that a 100 mm diameter sphere cannot pass through them, and
- c) The triangular opening formed by the riser, tread, and bottom rail of the barrier on a stair shall be of such a size that a 150 mm diameter sphere cannot pass through it (see Figure 4).

##### COMMENT:

1. *Buildings* classified as housing are always likely to be frequented by children under 6 years of age. However, 'Likely to be frequented' in regard to other *buildings* means something more than that children under 6 will be present from time to time. There should be an expectation that small children will be present on a regular basis (see Determination No. 2001/9 on [www.dbh.govt.nz](http://www.dbh.govt.nz)). Different parts of a *building* may have different barrier requirements, such as shopping malls where children under 6 are likely to frequent the public areas, but not the areas used for food preparation or the handling of stock.
2. The Clause F4.3.4(g) requirement that barriers restrict the passage of children under 6 years of age does not mean that all children under 6 must be unable to climb them. The Acceptable Solutions given here will prevent almost all children up to the age of 3 years from climbing. They can also be used as a guide for alternative designs.
3. Barriers with full height vertical members are the hardest for children to climb. Horizontal or near horizontal rails can easily be climbed by 2 year olds if the rails extend the full height of a barrier, even if the barrier includes a 200 mm wide top rail or if it slopes inwards at 15°.