



## Determination 2019/066

### Regarding the refusal to issue a code compliance certificate in respect of two sides of an above-ground pool acting as the pool barrier, that were not constructed in accordance with the building consent at 8 Waiata Avenue, Remuera, Auckland



#### Summary

This determination considers the authority's purported refusal to issue a code compliance certificate for two sides of an above-ground pool acting as the pool barrier, which were not constructed in accordance with the building consent. The determination discusses the compliance of the pool walls as a pool barrier with Clause F4 Safety from falling as the relevant Building Code clause at the time the building consent was issued.

## 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, Katie Gordon, Manager Determinations, 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 property, L Manson, as the applicant ("the applicant"), acting through a company who designed and built the pool ("the agent")
- Auckland Council ("the authority"), carrying out its duties as a territorial authority or building consent authority.

<sup>1</sup> The Building Act and Building Code are available at [www.legislation.govt.nz](http://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](http://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 purported decision to refuse to issue a code compliance certificate in respect of an above-ground residential swimming pool; in particular two sides of the pool, which are 'infinity edge' walls ("the pool walls"), acting as the pool barrier, which were not constructed in accordance with the building consent.
- 1.4 The matter to be determined<sup>2</sup> is whether the authority was correct in purportedly refusing to issue a code compliance certificate in respect of the pool walls as constructed. In determining this matter, I must consider whether the pool walls as constructed comply with Clause F4 Safety from falling of the Building Code<sup>3</sup>, in respect of restricting the access of children under 6 years of age to the pool or immediate pool area.
- 1.5 In making my decision I have considered the submissions of the parties and the other evidence in this matter.
- 1.6 Refer to the Appendices for relevant extracts from the Act and the Building Code.

## **1.7 Matters outside this determination**

- 1.7.1 This determination is limited to the matters outlined above in paragraph 1.4. I have not considered the compliance of the other building work included in the building consent, the compliance of the other aspects of the applicant's pool, or any other aspects of the Act or Building Code beyond those required to decide on the matter to be determined.
- 1.7.2 I have not considered how the pool walls interact with the terrace or other parts of the barrier to ensure a barrier encloses and restricts access by young children to the pool and immediate pool area. This is outside this determination.
- 1.7.3 I note that the requirements of Clause F4 Safety from falling, specifically Clause F4.3.1, are relevant where there is a fall of one metre or more from the pool and pool wall, and this issue has been discussed in previous determinations<sup>4</sup> as it relates to 'infinity pools'. As the matter to be determined is limited to restricting the access of children under 6 years of age to the pool or immediate pool area as outlined in paragraph 1.4, I leave the fall of one metre or more from the pool and pool wall to the parties to address.

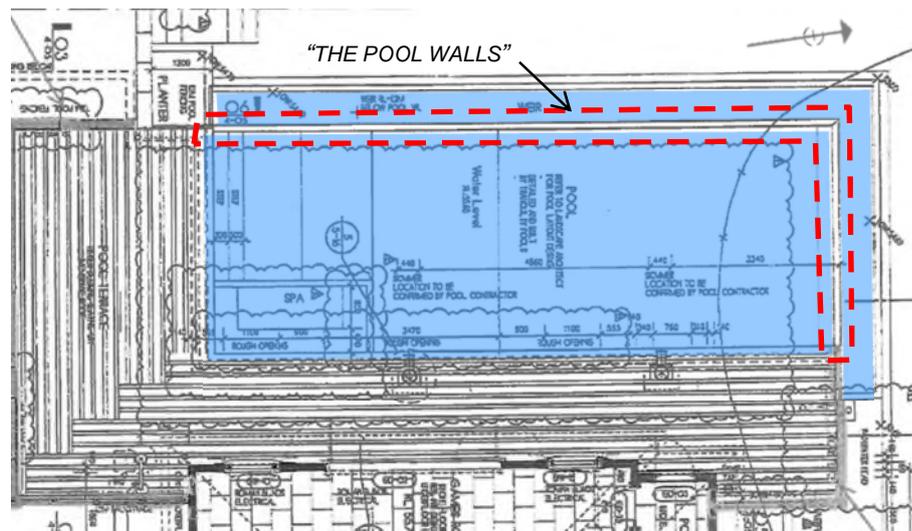
## **2. The building work**

- 2.1 The pool is located on a residential property and measures approximately 12.3m by 4.4m and has a depth of between 1200mm to 1700mm. The barrier to the immediate pool area is formed from a combination of 1200mm high glazed fencing, the external walls of the house, self-closing and self-latching gates, and the pool walls (see paragraph 2.3).
- 2.2 A deck is level with the east and south sides of the pool. The north and west sides of the pool (see Figure 1), which are the subject of this determination, consist of 'infinity edge' walls ("the pool walls"), which allow water from the pool to cascade over the edge of the pool walls into a collection tank ("the weir") below. The inside of the pool, outer face of the pool wall, and the inside of the weir are covered in smooth glass mosaic tiles ("the tiles").

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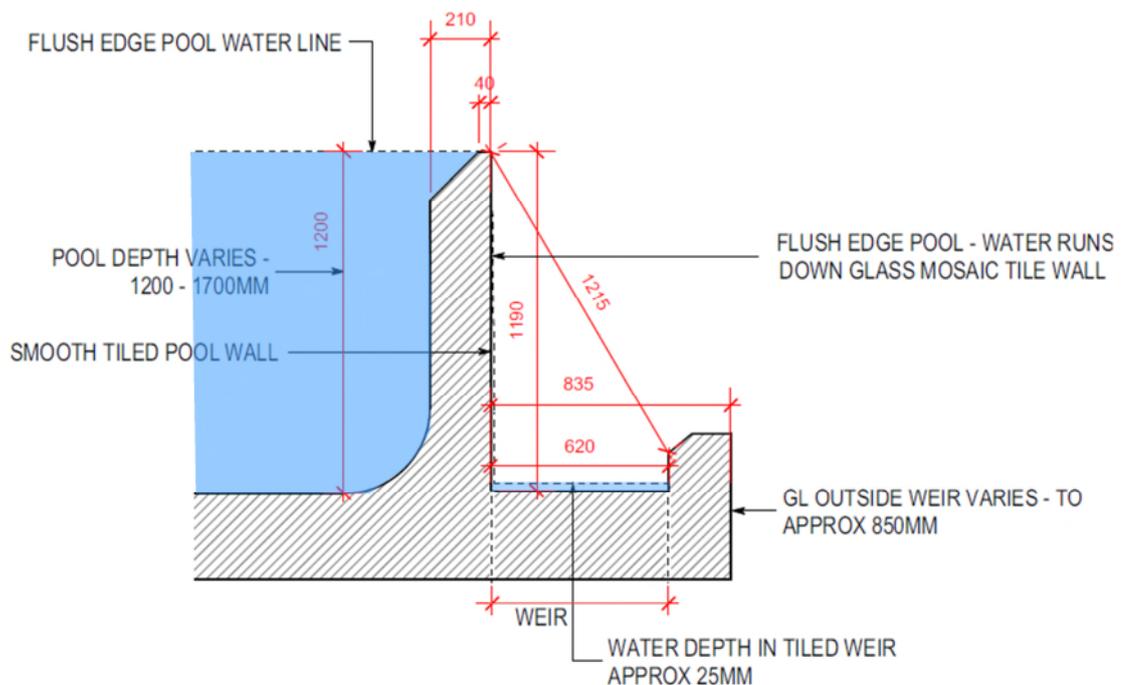
<sup>2</sup> Under sections 177(1)(b) and 177(2)(d) of the Act.

<sup>4</sup> Refer Determination 2010/097: Safety barriers to a swimming pool and a spa pool for relevant considerations (14 October 2010).



**Figure 1: Site plan of the pool (not to scale)**

- 2.3 The top of the pool walls is 40mm wide (at the highest point), and slopes back into the pool at an angle of approximately 45 degrees. Figure 2 shows the pool wall as constructed.



**Figure 2: The pool wall as constructed (not to scale)**

- 2.4 The outer face of the pool walls are 1190mm high when measured from the bottom of the weir to the highest point of the pool walls (including the capping tiles). The internal width of the weir is 620mm. The weir wall is approximately 210mm above the bottom of the weir, and the height of the weir wall to the adjacent ground varies between 0mm to 850mm.

### 3. Background

- 3.1 On 15 February 2016 the authority issued building consent B/2015/13460 for alterations to an existing three storey house, including the construction of a new outdoor pool. The building consent drawings show the pool walls were to be

constructed 1200mm high above the bottom of the weir. I have not seen a complete copy of the building consent.

- 3.2 In 2016 and 2017 various amendments to the building consent were made. An amendment relating to the revision to the pool design was issued 17 June 2016. No amendments were made to the design of the pool walls. Amendments to the building consent for works not relating to the pool walls were issued on 28 February 2017 and 9 November 2017.
- 3.3 The pool was constructed between January 2017 and March 2017. The pool walls were constructed 1190mm high above the bottom of the weir.
- 3.4 A final inspection was undertaken on 28 September 2018. The final inspection listed a number of 'failed' items, including the pool walls, with the final inspection noting "the pool wall from base of [the weir] to top of infinity edge is 1190mm".
- 3.5 In a letter dated 6 May 2019 the agent wrote to the authority outlining the following reasons why the agent is of the view the pool walls comply (in summary):
- The pool walls are covered in smooth surface glass mosaic tiles, so provides no climb points (rails, ledges, wires) for its total height.
  - The total 'non-climbable surface', being the distance between any two climbable horizontal rails, is 1190mm, which is more than the minimum 900mm between horizontal rails as required by the Acceptable Solution.
  - The top edge of the pool walls are designed in such a way that prevents a hand-hold of any sort and there is constant water running over the ledge which would further inhibit the possibility of a child being able to climb this pool barrier.
  - As far as safe pool barriers are concerned, the barrier that is in place, whilst 10mm lower than required, is in the agent's view a safer, less climbable pool barrier than any of the pool barriers illustrated in Acceptable Solution F9/AS1<sup>5</sup>.
- 3.6 On 8 May 2019 the agent followed up with an email to the authority requesting a decision regarding the pool walls as a barrier. On 25 May 2019 the authority responded by noting that while the non-compliance of the pool walls is negligible (i.e. 10mm short), the request to accept the pools walls as Building Code compliant translated to a 'request to accept a lesser degree of compliance with the minimum requirement of a 1200mm high barrier'. The authority also did not accept that a solution couldn't be found to remedy the walls to achieve the full height of 1200mm as approved in the consent.
- 3.7 The agent responded in an email on 27 May 2019 stating:
- ... this pool barrier is safer than any other 1200mm high pool barrier there is. The defining point about pool barriers is that a 5 year or younger child cannot climb a pool barrier and enter the pool area which without doubt we have achieved.
- 3.8 On 28 May 2019 the authority and agent met onsite, with the authority following up with an email on 29 May 2019 stating:
- In the final analysis [the authority does] not feel justified in accepting... [the] pool barrier [which] is less than 1200mm high (1190mm) despite the mitigations presented.

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<sup>5</sup> Acceptable Solution F9/AS1 Means of restricting access to residential pools for Building Code Clause F9. This Acceptable Solution came into effect 27 April 2017.

This ... would be setting a precedent for future work and for other pool manufacturers and installers to follow.

- 3.9 The Ministry received an application for determination on 17 June 2019. On 25 June 2019, in response to a request from the Ministry, the agent provided copies of correspondence between the agent and the authority, a copy of the final inspection dated 28 September 2018, and clarified when the pool was constructed.

## **4. The submissions**

### **4.1 The applicant's submissions**

- 4.1.1 The agent included a submission with the application for determination and provided copies of:

- the letter sent to the authority dated 6 May 2019
- a cross section as-built pool wall with weir (refer Figure 2)
- photos of the as-built pool wall with weir
- Figure 1 of Acceptable Solution F9/AS1
- email correspondence with the authority
- the building consent approval letter and subsequent amendment approval letters
- the final inspection record dated 28 September 2018.

- 4.1.2 In the agent's submission dated 14 June 2019, the agent stated (in summary) that the combination of the height of pool walls that are wet, smooth glass mosaic tile surface and the width of weir means that the pool walls in this instance are actually safer than many other pool barriers that are compliant with the Acceptable Solution (e.g. metal pool fencing with climbable horizontal bars at minimum 900mm apart) and therefore this situation meets the requirements of the Building Code.

### **4.2 The authority's submission**

- 4.2.1 The authority made a brief submission dated 4 July 2019 and provided copies of:

- the final inspection record including photographs of the building work dated 28 September 2018
- part of the building consent drawings relevant to the pool walls.

- 4.2.2 The authority's submission outlined its views on the compliance of the pool walls. The authority noted the matter had arisen from a failed final inspection and the authority had not received an application for the code compliance certificate. In respect of the compliance of the pool the authority stated (in summary):

- the 1190mm finished height of the pool walls does not comply with the 1200mm minimum required by the Acceptable Solution F9/AS1
- the authority does not want to set a precedent by accepting less than 1200mm
- the authority takes a risk averse approach to pool barrier construction
- the tragic consequences of drowning due to a non-compliant barrier far outweighs the impact and cost of rectifying a non-compliant situation on site
- taking the tiles out of the weir at the base of the pool would re-instate 1200mm.

- 4.2.3 On 25 July 2019 in a response to a request for information from the Ministry, the authority confirmed the building consent was lodged in 2016 meaning the relevant Building Code clause is Clause F4 Safety from falling. The authority also confirmed that no material changes were made to the pool walls as a result of amendments made to the building consent (refer paragraph 3.2).

#### 4.3 Draft determination

- 4.3.1 A draft of this determination was issued to the parties for comment on 5 September 2019.
- 4.3.2 The applicant responded on 11 September 2019, and the authority responded on 19 September 2019, both accepting the draft determination without comment.

### 5. Discussion

- 5.1 Previous determinations (for example Determinations 2008/030<sup>6</sup> and 2019/003<sup>7</sup>) have established that the issue of a code compliance certificate is a two-step process and consideration should be given to both whether the building work had been completed in accordance with the building consent, and also whether the building work complies with the Building Code.
- 5.2 Therefore in order to determine whether the authority was correct in its purported decision to refuse to issue a code compliance certificate in respect of the pool walls as constructed, I must consider whether the pool walls have been constructed in accordance with the building consent, and whether the pool walls as constructed comply with Clause F4 of the Building Code.

#### 5.3 The legislation

- 5.3.1 As mentioned in paragraph 3.1 the building consent was issued on 15 February 2016 and a number of amendments to the building consent were issued. The authority has confirmed the amendments did not materially change the pool walls from the issued building consent. I have been advised construction of the pool started in January 2017 and finished in March 2017.
- 5.3.2 Prior to 1 January 2017<sup>8</sup>, residential swimming pools were required to comply with Clause F4 Safety from falling of the Building Code and the Schedule of the Fencing of Swimming Pools Act 1987 (“FOSPA”) was cited within Acceptable Solution F4/AS1<sup>9</sup>.
- 5.3.3 Clause F4 is the relevant Building Code clause that was in force at the time the building consent was issued as the building consent was issued prior to 1 January 2017 and the building consent amendments issued after 1 January 2017 did not include revisions to the pool walls. The relevant performance requirements of Clause F4 are:

**F4.3.3** Swimming pools having a depth of water exceeding 400mm shall have barriers provided.

**F4.3.4** Barriers shall:

<sup>6</sup> Determination 2008/030: The issuing of a code compliance certificate for a multi-storey apartment building (5 May 2008)

<sup>7</sup> Determination 2019/003 Regarding the ground preparation for a house’s foundations and its compliance with Clause B1 Structure (11 March 2019)

<sup>8</sup> On 1 January 2017 the Fencing of Swimming Pools Act 1987 was repealed and new provisions relating to residential pools were added to the Building Act (sections 162A-162E, 450A and 450B). At the same time the relevant Building Code requirements in Clause F4 ‘Safety from falling’ were revoked and a new Clause F9 ‘Means of restricting access to residential pools’ was inserted into the Building Code.

<sup>9</sup> Refer sections 19 and 22 of the Act for how compliance with Building Code is established

....

- (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.

## 5.4 Compliance with the building consent

- 5.4.1 Section 94(1)(a) of the Act requires an authority to ‘issue a code compliance certificate if it is satisfied, on reasonable grounds, — ... that the building work complies with the building consent’.
- 5.4.2 The issued building consent drawings show the pool walls were to be constructed 1200mm high above the bottom of the weir. However, as noted in paragraph 3.3, the pool walls were constructed 1190mm high above the bottom of the weir. The pool walls as constructed are 10mm less in height than that specified by the building consent. I do not consider this difference in height is a significant deviation from the building consent in this case.
- 5.4.3 However, and despite this, I consider the departure in this case raises the question of the compliance of the pool walls with the Building Code. The pool walls are less than 1200mm, which is not only specified by the building consent, but also a significant dimension in respect of the Acceptable Solution for fences that restrict the access of children under 6 years of age to the pool or immediate pool area.
- 5.4.4 Accordingly, as noted in paragraphs 5.1 and 5.2, in order to determine whether the authority was correct in its purported decision to refuse to issue a code compliance certificate in respect of the pool walls as constructed, I must also consider whether the pool walls as constructed comply with Clause F4 of the Building Code being the clause in force at the time the building consent was issued, and now turn my mind to whether the pool walls as constructed restrict the access of children under 6 years of age to the pool or immediate pool area.

## 5.5 Compliance with Clause F4

- 5.5.1 The authority in its submission dated 4 July 2019 assessed the pool walls against Acceptable Solution F9/AS1. In the first instance, the authority should have considered whether the pool walls met the Building Code requirements in force at the time the pool walls were issued a building consent (or relevant amendment to the building consent), which were contained in Clause F4<sup>10</sup>. I consider the authority erred in making their assessment of the pool walls against F9/AS1 only, and should have considered whether the pool walls (as part of the barrier that restricts access to the pool and immediate pool area) comply with Clause F4.

### **The Schedule to the Fencing of Swimming Pools Act**

- 5.5.2 The Schedule to FOSPA (“the Schedule”) was cited in Acceptable Solution F4/AS1<sup>11</sup> as a means of establishing compliance with Clause F4 Safety from falling. Section 19 of the Act states a building consent authority must accept compliance with an Acceptable Solution as establishing compliance with the Building Code. The Schedule (refer to Appendix B.2) sets out specific and prescriptive requirements for ‘fences’ as a means of restricting the access of children under 6 years of age to the pool or the immediate pool area.
- 5.5.3 Clause 1(1) of the Schedule states:

The fence shall extend—

<sup>10</sup> Building Regulations dated 6<sup>th</sup> January 2002.

<sup>11</sup> Acceptable Solution F4/AS1 Safety from falling for New Zealand Building Code Clause F4.

- (a) at least 1.2 metres above the ground on the outside of the fence; and
- (b) at least 1.2 metres above any permanent projection from or object permanently placed on the ground outside and within 1.2 metres of the fence.

5.5.4 In my view the pool walls as constructed do not comply with the specific and prescriptive requirements of the Schedule as a 'fence'. Accordingly, the pool walls as constructed do not satisfy the Schedule and Acceptable Solution F4/AS1.

5.5.5 However, compliance with an Acceptable Solution is one way but not the only way of achieving compliance with the Building Code<sup>12</sup>. The Building Code is performance-based and allows for the use of different methods than those detailed in the Acceptable Solutions. A building consent authority cannot refuse to consider a proposal simply on the basis that the proposal is not in accordance with an Acceptable Solution.

5.5.6 I have therefore considered whether the pool walls comply with the Building Code performance criteria Clause F4.3.4(f) that was in force at the time the building consent was issued.

**The compliance of the pool walls with Clause F4.3.4(f) as constructed**

5.5.7 In respect of the Building Code in force at the time the building consent was issued, there were no specific requirements for heights of pool barriers in the Building Code. Instead, what is important is whether the pool walls achieve the performance requirement of a barrier, which is to restrict access by children under 6 years of age to the pool or immediate pool area. In evaluating the pool walls and compliance with Clause F4.3.4(f), it is useful to make some comparisons with the methods of construction of fences within the Schedule.

5.5.8 The authority noted in its final inspection (refer paragraph 3.4) the height of the pool walls to be the aspect of non-compliance. The pool walls (including the tiles) as constructed have a height of 1190mm above the bottom of the weir. This is 10mm short of the height for fences set by clause 1(1) of the Schedule, and that specified by the building consent.

5.5.9 The agent has submitted the pool walls are much "safer" than that required of the schedule because the pool walls have a greater "non-climbable surface" than the minimum requirements of the Acceptable Solution and the top edge of the pool walls are designed to prevent hand-holds.

5.5.10 A previous determination<sup>13</sup> considered how young children would attempt to climb a barrier, and at paragraph 6.10 concluded that with solid barriers children "hold onto the top and gain a friction grip with one shoe on the vertical surface by arching their body outwards". The agent is of the view the total "non-climbable surface" of the pool walls, at 1190mm, is 290mm greater than the requirement in the Schedule.

5.5.11 The pool walls are free from any horizontal features or projections that could assist children in climbing the pool walls (the top of the pool walls and the base of the weir are 1190mm vertically apart). This is compared to the minimum 900mm required distance between any horizontal features of fences specified in the Schedule<sup>14</sup>. I agree with the agent's observation and consider this a significant feature of the pool walls in restricting access by small children. The absence of, or an increase in the

<sup>12</sup> Acceptable Solutions and Verification Methods are produced by the Ministry and, if complied with, must be accepted by a building consent authority as establishing compliance with the Building Code (refer section 19 of the Act).

<sup>13</sup> Refer Determination 2010/014 Safety barriers surrounding a swimming pool area. (26 February 2010)

<sup>14</sup> And Acceptable Solution F9/AS1

distance between any horizontal features will make it more difficult for a young child to climb the pool walls.

- 5.5.12 I do not consider that the top of the pool walls is constructed to “prevent hand-holds” of any kind because the configuration of the top of the wall allows for hand-hold and has no features that prevent the touching of the top of the pool walls. However, I do agree that the configuration of the top of the pool walls, the constant flow of water and the smooth tiles will result in increased difficulty for a young child in gaining a grip or hand-hold.
- 5.5.13 In comparison with the profile of the top of a typical glass or timber paling fence that would be compliant with the Schedule, glass panels and palings, which are typically up to 20mm thick, and are comparatively easier to grasp and get a hand completely around when compared to the top of the pool walls in this case.
- 5.5.14 Furthermore, the outer surface of the pool walls is covered in smooth glass mosaic tiles, and has a constant flow of water cascading down it, providing a slippery surface. If a child were able to grip and hold the top of the wall, I consider the slippery surface of the pool walls themselves, in conjunction with the other features of the pool discussed in paragraphs 5.5.10 to 5.5.13, will make it difficult to gain enough friction to support the foothold of a child attempting to climb up.
- 5.5.15 Taking into account the combination of the particular features of the pool walls in this case, I consider the pool walls provide at least a similar performance to the fences described in the Schedule. I therefore conclude that the pool walls comply as a barrier that will restrict the access of children under 6 years of age to the pool and comply with Clause F4.3.4(f).

## **5.6 Conclusion**

- 5.6.1 In determining whether the authority was correct in its purported decision to refuse to issue a code compliance certificate in respect of the pool walls as constructed, I conclude:
- the pool walls have not been completed in accordance with the building consent, however,
  - as noted in paragraph 5.5.15, the pool walls as constructed comply as a barrier that will restrict the access of children under 6 years of age to the pool and comply with Clause F4.3.4(f)
  - accordingly, as I have concluded the pool walls comply with the Building Code, the authority was incorrect in its purported decision to refuse to issue a code compliance certificate in respect of the pool walls as constructed.
- 5.6.2 I emphasise that each determination is conducted on a case-by-case basis. The fact that the pool walls in this case have been established as complying with Clause F4 in relation to a particular situation and configuration does not necessarily mean that the same arrangement will comply with the Building Code in another situation.

## **6. The decision**

- 6.1 In accordance with section 188 of the Building Act 2004, I hereby determine the authority was incorrect in its purported refusal to issue the code compliance certificate in respect of the pool walls as constructed. I reverse that decision, requiring the authority to make another decision taking into account this determination.

Signed for and on behalf of the Chief Executive of the Ministry of Business, Innovation and Employment on 20 December 2019.

Katie Gordon  
**Manager Determinations**

## Appendix A: The Building Code

### A.1 Clause F4 Safety from falling

The original building consent was issued prior to 1 January 2017, meaning the relevant Building Code clause at the time was Clause F4 Safety from falling.

The relevant performance criteria in Clause F4 are:

- F4.3.3 Swimming pools having a depth of water exceeding 400mm, shall have barriers provided.
- F4.3.4 Barriers shall:
- ...
  - (f) in the case of a swimming pool, restrict the access of children under the age of 6 years to the pool or the immediate pool area.
  - ...

## Appendix B: The Fencing of Swimming Pools Act 1987

### B.1 The Fencing of Swimming Pools Act

The relevant parts of FOSPA discussed in this determination include:

#### 5 Exempted pools

Nothing in this Act shall apply in respect of—

- (a) any pool that has no part of the top of its side walls less than 1.2 metres above the adjacent ground level or any permanent projection from or object standing on the ground outside and within 1.2 metres of the walls, where the outside surface of the side walls is constructed so as to inhibit climbing...

#### 8 Obligations of owner and persons in control of pool

- (1) Every owner of a pool to which this Act applies shall ensure that, except as provided in any exemption granted under section 6, the pool, or some or all of the immediate pool area including all of the pool, is fenced by a fence that complies with the requirements of the building code in force under the Building Act 1991 in respect of swimming pools subject to this Act at all times when this Act applies in respect of the pool.

#### 13B Fencing in accordance with Schedule must be treated as means of compliance

Any provision that is made for the fencing of swimming pools that is in accordance with the Schedule must, in respect of—

matters subject to the Building Act 2004, be treated as an Acceptable Solution or a verification method establishing compliance with the building code for the purposes of section 19 of that Act, and the requirements of this Act:

### B.2 The schedule to the Fencing of Swimming Pools Act

- 1(1) The fence shall extend—
  - (a) at least 1.2 metres above the ground on the outside of the fence; and
  - (b) at least 1.2 metres above any permanent projection from or object permanently placed on the ground outside and within 1.2 metres of the fence.
- 5 All fencing supports, rails, rods, and wires, that are not vertical, and all bracing that is not vertical, shall be inaccessible for use for climbing from the outside.

- 5A Notwithstanding clause 5, a fence may have horizontal supports, rails, rods, or wires, that are accessible for use for climbing from the outside, and horizontal bracing that is accessible for such use, if—
- (a) the distance between any 2 of them at any point is at least 900 mm; and
  - (b) there is no other support, rail, rod, wire, or bracing (other than a vertical rail) between the same 2 at any point.