



Determination 2021/009

Regarding the compliance of a new section of pool barrier at 7 Fincham Road, Raumati Beach, Paraparaumu



Figure 1: Photograph of the pool area and barrier

Summary

This determination considers the compliance of a new section of pool barrier with section 162C of the Building Act 2004 and clause F9 of the Building Code. The determination concerns a section of a boundary fence where it adjoins other fences.

1. Preliminary

- 1.1 This is a determination under Part 3 Subpart 1 of the Building Act 2004 made under due authorisation by me, Katie Gordon, National Manager Determinations, Ministry of Business, Innovation and Employment (“the Ministry”), for and on behalf of the Chief Executive of the Ministry.
- 1.2 The relevant legislation discussed in this determination is contained in Appendix A. In this determination, unless otherwise stated, references to “sections” are to sections of the Building Act 2004 (“the Act”) and references to “clauses” are to clauses in Schedule 1 (“the Building Code”) of the Building Regulations 1992.
- 1.3 The Act and the Building Code are available at www.legislation.govt.nz. Information about the legislation, as well as past determinations, compliance documents and guidance issued by the Ministry, is available at www.building.govt.nz.

Parties and person with an interest

- 1.4 The parties to the determination are:
- Kapiti Coast District Council (“the authority”), carrying out its duties as a territorial authority or building consent authority, which applied for the determination
 - the owners of the property, S Peachey and D Mackie (“the owners”).
- 1.5 Pool Check NZ Limited is a person with an interest in this determination, as the registered independently qualified pool inspector (“the pool inspector”) who inspected the residential swimming pool at the owners’ property.¹

The matter to be determined

- 1.6 This determination arises from the following.
- An inspection of the pool barrier carried out by the pool inspector in January 2019 concluded that the pool barrier did not comply with the Act.²
 - As a result of the pool inspector’s findings, the owners undertook building work to alter the pool barrier, and this was done without first obtaining a building consent³.
 - A second inspection of the pool barrier by the pool inspector concluded that the pool barrier complies.
 - The authority does not accept the pool inspector’s conclusion⁴ and is of the view that the pool barrier, as altered, does not comply with the requirements of the Building Code. The authority’s concerns relate to a boundary fence that forms part of the pool barrier, and in particular its junctions with other fences that form part of the pool barrier (the north and south fences – see figure 1).

¹ Independently qualified pool inspectors can inspect pools according to the Act, and are registered by the Ministry under the Building (Pools) Regulations 2016.

² Section 162D requires inspections of residential pools at least once every three years to ensure ongoing compliance of pool barriers to the extent required by section 162C.

³ Under section 40(1) a person must not carry out any building work except in accordance with a building consent, unless the work is exempt. Fences restricting access to a residential pool are not exempt under section 41 or Schedule 1 of the Act.

⁴ Under section 162D(2), a territorial authority may accept a certificate of periodic inspection from an independently qualified pool inspector for the purpose of determining compliance with section 162C.

- The owners are of the view that the pool barrier is compliant, based on the pool inspector’s conclusion at the second inspection.
- 1.7 The building work carried out to alter the pool barrier is required to comply with Clause F9 *Means of restricting access to residential pools*. In addition, there are ongoing compliance requirements of the pool barrier under section 162C.
- 1.8 Therefore, under section 177(1)(a) the matters to be determined are:
- whether the building work carried out in 2019 to alter the east boundary fence complies with Clause F9
 - whether the altered east boundary fence complies with section 162C.
- 1.9 In considering these matters, I have had regard to the purposes and principles of the Act in sections 3 and 4, in particular the importance of:
- ensuring people who use buildings can do so safely and without endangering their health (section 3(a)(i))
 - the role that household units play in the lives of the people who use them, and ensuring that household units comply with the Building Code (section 4(2)(a))
 - promoting the accountability of owners and building consent authorities who have responsibilities for ensuring that building work complies with the Building Code and that the necessary building consents are obtained for proposed building work (sections 3(b) and 4(2)(q)(i)).

2. The altered pool barrier

- 2.1 The altered pool barrier consists of:
- an 1800 mm high wooden fence on the east boundary of the property (the “east boundary fence”) that incorporates a new section of fencing (see figure 1 above)
 - an existing metal fence to the south of the pool (the “south fence”), at approximately 1245 mm to 1280 mm high from ground level
 - the wall of a garage, including a window, to the west of the pool
 - a new section of timber fence on the north side of the pool at 1515 mm to 1530 mm high above ground, that runs on from an existing metal fence (together referred as the “north fence”).

- 2.2 Figure 2 shows the junctions between the east boundary fence and the north and south fences.

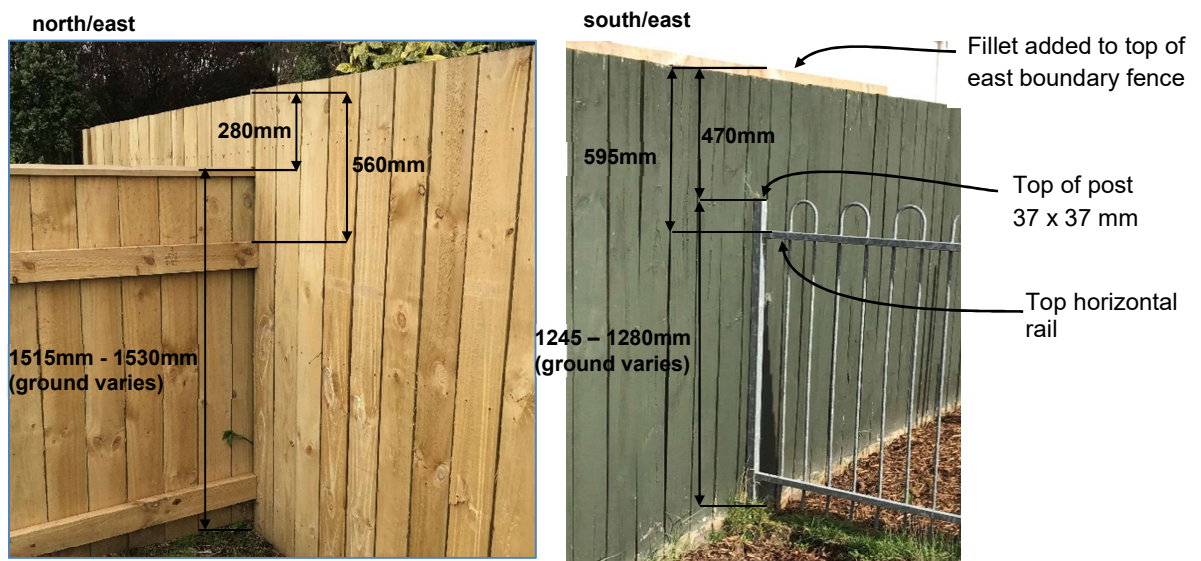


Figure 2: Photographs showing north/east and south/east junctions

- 2.3 The top of the new north timber fence is 280 mm below the top of the east boundary fence, and has horizontal rails on the pool-side (as shown in figure 2). The top of the post on the south fence, and its top horizontal rail, are 470 mm and 595 mm respectively below the top of the east boundary fence.
- 2.4 The east boundary fence has fillets on top of each of the three horizontal rails on the neighbour's side, which are approximately 720 mm apart. The fillet on the top rail brings the height to 1800 mm. The fillets on the horizontal rails are lengths of wood which have a triangular shaped cross-section, with the diagonal face of the triangle facing outwards to inhibit the use of the rails for climbing up the fence.

3. Background

The original construction and 2013 inspection

- 3.1 The parties do not know when the pool was constructed. The owners have advised that they purchased the property in December 2018 and that they received no documentation or plans from the previous owners in relation to the history of the pool or the construction of the pool barrier.
- 3.2 In response to a request from the Ministry on 5 September 2019 for information about the original construction of the pool and barrier, on 9 September 2019 the authority advised that:
- it had no record on the property file of building consents or permits for construction of a pool
 - the earliest record was of an inspection of the pool barrier dated 8 May 1996⁵

⁵ Under section 10 of the Fencing of Swimming Pools Act 1987 (FOSPA) territorial authorities were required to "take all reasonable steps to ensure that [FOSPA] is complied with within its district"; this typically included periodic inspections of pool barriers for compliance with the Schedule of FOSPA and included existing pools.

- due to the absence of any records, it is likely that the construction of the pool pre-dated the Building Act 1991 (“the former Act”) and/or the Fencing of Swimming Pools Act 1987 (“FOSPA”) (both now repealed).
- 3.3 The authority last inspected the pool barrier on 2 May 2013 and determined that the pool barrier was not compliant with FOSPA, which at that time was the legislation that applied to the ongoing compliance of pool barriers. The authority’s letter dated 3 May 2013 sets out the reasons for their decision. The letter notes that the boundary fences⁶ had horizontal rails (on the neighbours’ side) which were less than 900 mm apart and accessible for climbing from the outside of the fence.⁷
- 3.4 The authority sent a further letter to the previous owners on 2 July 2013, requiring compliance work to be undertaken by 2 August 2013.
- 3.5 It appears that nothing further occurred until the authority sent an appointment letter to the previous owners on 14 December 2018, noting the pool barrier was to be inspected on 29 January 2019.

The 21 January 2019 inspection of the pool barrier

- 3.6 On 21 January 2019 the pool inspector carried out an inspection of the pool barrier, and produced a report dated 22 January 2019 (“the pool inspector’s first report”) which was issued to the owners and the authority.
- 3.7 The pool barrier was inspected against criteria for residential pool barriers in the Acceptable Solution for Clause F9 – F9/AS1 Residential Pool Barriers (“Acceptable Solution F9/AS1”)⁸, and the inspection checklist in the pool inspector’s first report marked a number of features as being not compliant.
- 3.8 On 8 February 2019 the authority wrote to the owners advising that the pool barrier did not comply with the Act and remedial work was required to be undertaken by 8 March 2019. In their letter the authority repeated the reasons set out in the pool inspector’s first report.

The building work to alter the pool barrier

- 3.9 Following the failed inspection on 21 January 2019, the owners undertook the following building work to the pool barrier (see also figures 2 and 3):
- A new timber fence was constructed on the north side of the pool, extending the existing metal fence, so the north boundary fence no longer forms part of the pool barrier.
 - A sloping portion of the east boundary fence was replaced with a new section of timber fence, and the remaining east boundary fence had a fillet added to the top so that it is now at least 1800 mm high where it forms part of the pool barrier.
 - Fillets were added to the three horizontal rails on the neighbour’s side of the east boundary fence where it forms part of the pool barrier.

⁶ At the time both the north and east boundary fences formed part of the pool barrier.

⁷ I note the authority went on to describe what it considered was a possible solution that involved installing wooden fillets on the rails.

⁸ Acceptable Solutions and Verification Methods are produced by the Ministry and, if followed, must be accepted by a building consent authority as establishing compliance with the Building Code. In general terms, building work designed in accordance with the relevant Acceptable Solution or Verification Method for a particular Building Code clause provides one way, but not the only way, to demonstrate compliance with that clause. Another option is to provide an alternative solution, which is a design that departs partially or completely from the Acceptable Solution or Verification Method. In considering an alternative solution proposal a building consent authority will require further evidence to be satisfied that the building work meets the functional requirements and performance criteria of the clause.

- The existing metal fence on the west side of the pool, which was originally parallel to the garage wall, was removed. The north and south fences were then extended to the garage so that the garage wall, which includes a window, forms part of the pool barrier.
- The gate was realigned and the latch raised.

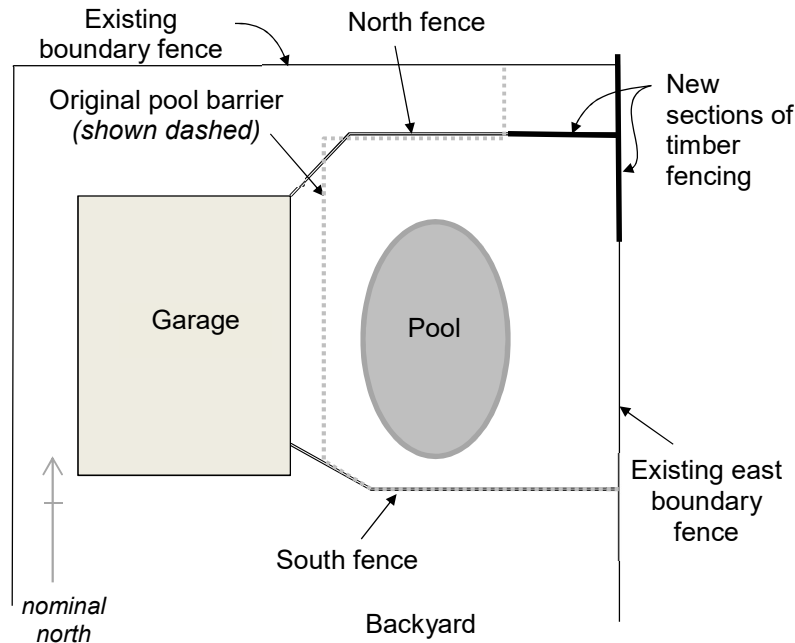


Figure 3: Approximate site plan (not to scale)

- 3.10 The owners did not obtain a building consent for the building work prior to carrying it out. Whether or not they were advised on this matter is not a matter for consideration in this determination.

The 27 April 2019 inspection of the pool barrier

- 3.11 Following the completion of the building work, the pool inspector re-inspected the pool barrier on 27 April 2019 and produced a report dated the same date (“the pool inspector’s second report”). The pool inspector’s second report and accompanying certificate of periodic inspection⁹ states that the pool barrier complies with Acceptable Solution F9/AS1. The report states:

...

- The pool fencing is now comprised of a dedicated pool fence front (south) and back (north). The east is a boundary fence and the west is the exterior wall of the garage
- The gate latch on the south fence has now been raised and is compliant
- The gate itself continues to be compliant
- The [east] fence has been raised to 1800mm+ and covered with vertical planks – compliant
- The owner has also installed fillets onto the rear rails of the fence, on the neighbors (sic) side, to impeded (sic) climbing from that side
- The north fence is now dedicated pool fencing and not the boundary with the neighbor (sic)

⁹ A “certificate of periodic inspection by an independently qualified pool inspector” is set out as Form 1 in the Schedule of the Building (Pools) Regulations 2016.

- h) This fence has been moved into the section away from the [north] boundary
- i) It is split between metal rails and wooden vertical battens – both are compliant
- j) The west boundary is the garage which has windows on that wall that are non-opening – compliant

3.12 On 22 May 2019 the authority wrote to the owners, stating:

... Unfortunately, [the authority] does not consider the barrier complies with section 2.2.1 d) of [Acceptable Solution F9/AS1], which states:

2.2.1 If a pool barrier is located on a property boundary, it shall:

[d] Have a 900 mm high zone on the pool side of the barrier that begins not more than 150 mm from the top and is constructed as specified in Paragraphs 2.1.3 and 2.1.7, to restrict climbing by children.

This is because the newly constructed and aligned interior wooden fencing forming the pool barrier on the Northern side is within the 900 mm non-climbable zone where it intersects with the property boundary fence, meaning it is climbable.

The interior fence height must also be 1800 mm and have a 900 mm non-climbable zone (on both the interior and exterior sides) within a 1.20 metre lateral distance of the property boundary fence.

I take this letter to mean that the authority did not accept the certificate of periodic inspection which accompanied the pool inspector's second report.¹⁰

- 3.13 An exchange of emails between the parties followed regarding the pool barrier, inspections, and the legal requirements for pool barriers and building work. The parties were unable to resolve the various issues.
- 3.14 On 26 August 2019 the Ministry received the application for a determination.
- 3.15 Two advisors of the Ministry visited the property on 25 September 2019 to take photographs and measurements of the pool barrier, and this information has been taken into account in making this determination.

4. Submissions

Authority's submission

4.1 The authority submits (in summary):

- The reason it did not accept the pool inspector's certificate of periodic inspection was that it is of the view the east boundary fence does not meet the criteria of paragraph 2.2.1(d) of Acceptable Solution F9/AS1, and therefore does not meet the performance requirements of Clause F9.3.1 and F9.3.3. The particular areas of concern are where the north and south fences intersect with the east boundary fence.
- The top of the north and south fences where they join the east boundary fence, as well as the top horizontal rails of the north and south fences, are projections on the face of the east boundary fence within 150 mm to 1050 mm from the top of that fence. As the projections are more than 10 mm in depth and are within the 900 mm high "non-climbable zone", the pool barrier does not comply with Acceptable Solution F9/AS1.

¹⁰ For completeness I note section 162D(3) provides "If a territorial authority decides not to accept a certificate of periodic inspection from an independently qualified pool inspector under subsection (2), the territorial authority must, within 7 working days of making that decision, give notice to the chief executive of the decision and the reasons for the decision."

Owners' submission

- 4.2 The owners object to the authority's position and rely on the pool inspector's second report.

Pool inspector's submission

- 4.3 The pool inspector provided a submission on 14 September 2019, setting out its position as follows (in summary):
- The standard that the pool inspector applied when carrying out inspections both before and after the alterations was Acceptable Solution F9/AS1.
 - The authority appears to interpret Acceptable Solution F9/AS1 as including a requirement that "any 1200 mm pool fence abutting a pool barrier fence had to be at 1800 mm itself for a distance of 1200 mm back from the Pool boundary fence."
 - The pool inspector does not agree with the authority's interpretation, and notes that such a requirement is not explicitly written into the Building Code or Acceptable Solution F9/AS1, and there is nothing in the Acceptable Solution indicating this was intended.
 - There have not been any previous determinations considering this particular issue that would provide guidance.

Drafts of the determination and submissions received in response

- 4.4 On 28 January 2020, the first draft of this determination was issued to the parties and the pool inspector for comment. The draft concluded that the building work carried out to alter the existing barrier does not comply with Clause F9, and therefore the altered pool barrier does not comply with section 162C.
- 4.5 On 24 February 2020, the owners advised that they did not accept the draft determination. The owners provided a submission stating (in summary):
- They accept they have no control over what happens on an adjacent property, however they also have no control over what happens on their own property in their absence. A young child could use an object on the property to climb over a non-boundary fence that is 1200 mm high.
 - Any toe/hand-holds at the north/east and east/south junctions would need to be on the neighbour's side of the east boundary fence to assist a child to climb the boundary fence, but timber fillets were added to that side in accordance with advice from the authority and the pool inspector.
- 4.6 On 11 March 2020, the pool inspector advised the Ministry by telephone that the draft determination was not accepted.
- 4.7 On 12 March 2020, the authority advised that the draft determination was accepted and provided a submission.
- 4.8 In its submission, the authority queried whether, given the conclusion reached regarding the top horizontal rail and vertical post of the south fence, the curved tops of the vertical metal supports should also be considered as projections or possibly as a separate climbable object.
- 4.9 With regard to climbable objects, the authority referred to paragraph 2.1.6 of Acceptable Solution F9/AS1, which I note is not a criteria that applies in respect of

boundary fences. The authority's concern is that objects on the pool side of a boundary fence could be used in assisting a child to climb down into the pool area from the top of the fence, and that this would contravene the performance clauses F9.3.1 and F9.3.3.

- 4.10 On 12 January 2021, the second draft of this determination was issued to the parties and the pool inspector for comment.
- 4.11 The owners and the authority accepted the second draft determination with no further comment, on 4 February and 9 February 2021 respectively. No response was received from the pool inspector.

5. Legislation

- 5.1 Section 17 provides that “all building work must comply with the building code to the extent required by this Act...”
- 5.2 Clause F9 is the relevant Building Code clause that the building work to the east boundary fence must comply with.
- 5.3 The objective of Clause F9 is to prevent injury or death to young children involving residential pools. In particular, this clause requires residential pools to have means of preventing access to the pool or immediate pool area¹¹ by unsupervised children under 5 years of age.
- 5.4 The relevant performance clauses in this case are:
- F9.3.1** Residential pools must have or be provided with physical barriers that restrict access to the pool or immediate pool area by unsupervised young children (ie, under 5 years of age).
- F9.3.2** Barriers must either—
- (a) surround the pool (and may enclose the whole or part of the immediate pool area);
- ...
- F9.3.3** A barrier surrounding a pool must have no permanent objects or projections on the outside that could assist children in negotiating the barrier.
- 5.5 There are various means by which building work can be shown to comply with the Building Code. These include by demonstrating the work's compliance with the relevant Acceptable Solution. For Clause F9 this solution is Acceptable Solution F9/AS1. However, Acceptable Solutions are not the only way of demonstrating compliance. Building work can achieve compliance in another way, including as an alternative solution.
- 5.6 Also relevant are the requirements in section 162C, which the barrier must continue to comply with for the duration of its life.
- 162C Residential pools must have means of restricting access**
- (1) Every residential pool that is filled or partly filled with water must have physical barriers that restrict access to the pool by unsupervised children under 5 years of age.
- (2) The means of restricting access referred to in subsection (1) must comply with the requirements of the building code—
- (a) that are in force; or

¹¹ “Immediate pool area” is defined in section 7 to mean “the land in or on which the pool is situated and so much of the surrounding area as is used for activities carried out in relation to or involving the pool”.

- (b) that were in force when the pool was constructed, erected, or installed (after 1 September 1987) and in respect of which a building consent, code compliance certificate, or certificate of acceptance was issued (in relation to the means of restricting access to the pool).

- 5.7 Under section 162C(2) a pool barrier to an existing pool must comply with the requirements of either the Building Code currently in force (i.e. Clause F9), or the Building Code that was in force when the pool was constructed.¹² The general intention is that existing pool barriers must continue to perform at the standard applicable to them when installed and approved, and are not required to be upgraded should there be subsequent changes to the Building Code requirements for residential pools.
- 5.8 Compliance for the purpose of section 162C can be established by way of Acceptable Solution F9/AS1 or as an alternative solution, or with the Schedule of FOSPA in applicable cases¹³.

6. Discussion

- 6.1 The building work in the current case consists of alterations to an existing pool barrier, carried out in 2019. The authority is concerned that the altered east boundary fence does not fulfil the criteria in paragraph 2.2.1(d) of Acceptable Solution F9/AS1.
- 6.2 The authority's specific areas of concern are the junctions between the east boundary fence and the north and south fences. The authority is of the view that the top of the north and south fences, as well as their top horizontal rails, are projections of greater than 10 mm on the face of the east boundary fence within 150 mm to 1050 mm from the top of that fence.
- 6.3 The authority considers that because the criteria in Acceptable Solution F9/AS1 have not been met, then the building work to the east boundary fence does not comply with Clause F9.
- 6.4 In determining this matter, I will first consider the compliance of the building work to alter the east boundary fence with Clause F9. I will then consider the compliance of the altered east boundary fence with the requirements in section 162C.
- 6.5 I note here that in the course of the building work other sections of the pool barrier have been altered. However, this determination is limited to the altered east boundary fence, which is the section of the building work in issue in this case. I have not considered the compliance of any other aspects of the building work or other sections of the barrier, with either the Building Code or section 162C.

Compliance of the building work to alter the east boundary fence with Clause F9

- 6.6 As discussed in paragraph 5.5, there are two ways that the building work to alter the east boundary fence can be shown to comply with Clause F9 of the Building Code – either by meeting the criteria in Acceptable Solution F9/AS1, or by demonstrating compliance as an alternative solution.

¹² For pools constructed between 1 September 1987 and 1 January 2014, the relevant Building Code Clause is the version of Clause F4 *Safety from falling* applying at the relevant time.

¹³ Under the transitional and savings provisions (sections 450A and 450B), subject to any exemption granted under FOSPA and the conditions of that exemption.

Assessment against Acceptable Solution F9/AS1

6.7 The relevant paragraphs of the Acceptable Solution include the following:

2.1 Pool barriers

2.1.1 A pool barrier can be a fence but may also take other forms of construction, such as a concrete block wall. ...

2.1.2 Pool barriers not on a property boundary shall have a height of not less than 1200 mm from the finished floor or ground level outside the pool barrier.

2.1.3 Pool barriers shall not be angled more than 15° from vertical and may only slope away from the pool. Any rails, rods or wires forming a part of a pool barrier that are not themselves vertical shall be at least 900 mm apart vertically to restrict climbing. There shall be no openings in the pool barrier that a 100 mm diameter sphere could pass through.

...

2.1.7 Any projections or indentions on the outside face of a pool barrier shall not have a horizontal projection from the face of the pool barrier greater than 10 mm unless they are at least 900 mm apart vertically.

2.2 Pool barrier on a property boundary

2.2.1 If a pool barrier is located on a property boundary, it shall:

a) Be not less than 1800 mm high, measured from the ground level on the pool side, and

...

d) Have a 900 mm high zone on the pool side of the barrier than begins not more than 150 mm from the top and is constructed as specified in Paragraphs 2.1.3 and 2.1.7, to restrict climbing by children.

Comment:

Should a child gain access to the top of the barrier from the outside, this construction method will prevent them from climbing down into the pool area.

6.8 Paragraph 2.1 applies to pool barriers in general, while paragraph 2.2 applies specifically to situations where part of a pool barrier is on a property boundary, as the east boundary fence is in this case.

6.9 In table 1 below I summarise my observations regarding whether the alterations to the east boundary fence satisfy Acceptable Solution F9/AS1.

Table 1: Assessment of the altered east boundary fence against Acceptable Solution F9/AS1

Requirements when pool barrier on property boundary		My observations
2.2.1(a)	Minimum 1800 mm high measured from ground level on pool side	East boundary fence is at least 1800 mm high
2.2.1(d)	900 mm high zone on pool side beginning 150 mm maximum from top to restrict climbing by children	Not met where east boundary fence meets north and south fences, with these beginning 280 mm and 470 mm from the top of the east boundary fence respectively
	Constructed as specified in paras 2.1.3 and 2.1.7 to restrict climbing by children	See comments below in relation to paras 2.1.3 and 2.1.7
2.1.3	Non-vertical rails to be 900 mm apart vertically to restrict climbing	There are no non-vertical rails on the pool side of east boundary fence
2.1.7	Horizontal projections to be 10 mm maximum from face of barrier unless 900 mm minimum apart vertically	Not met in relation to the 900mm high zone on the pool side of the east boundary fence (2.2.1(d)): <ul style="list-style-type: none"> at the north/east junction there are horizontal projections of more than 10 mm formed by the top of the north fence and the top rail of the north fence at the east/south junction there are horizontal projections of more than 10 mm formed by the top of the south fence and the top rail of the south fence

- 6.10 Paragraph 2.2.1(d) requires a “non-climbable zone” (to use the authority’s phrase) on the *pool* side of a pool barrier, where that barrier is on a property boundary. This zone must begin within the top 150 mm of the barrier and must extend downward for at least 900 mm. Paragraph 2.2.1(d) incorporates the general requirements in paragraphs 2.1.3 and 2.1.7 to explain how the zone must be constructed. The comment following paragraph 2.2.1 makes it clear that the purpose of the zone is to prevent any child that manages to get to the top of the barrier from climbing down into the pool area. It does this by ensuring there are no projections or indentions (i.e. finger and toe-holds) within the non-climbable zone that would assist the child to climb down.
- 6.11 The specific criteria in paragraph 2.2 for pool barriers on property boundaries have been included in the Acceptable Solution to address the fact that owners of residential pools cannot control what occurs on an adjacent property. For example, an owner cannot prevent the owner of the neighbouring property from changing the ground level next to the barrier (which would change the barrier’s height), or building or placing structures or objects close to the barrier (which would make it easier for children to climb to the top of the barrier).
- 6.12 Where pool barriers are constructed entirely within a pool owner’s property they can prevent these things happening, and in this way ensure the ongoing compliance of the barrier. Where part of the barrier is on a property boundary this is not the case. A barrier that was compliant when it was built may cease to be compliant through the actions of a neighbour, which are beyond the pool owner’s control. However, the pool owner remains responsible (under section 162C(4)) for the ongoing compliance of the barrier.
- 6.13 To address this, paragraph 2.2.1 provides a number of requirements to prevent a young child from accessing a pool area from the neighbour’s side of a pool barrier on

- a boundary. These include the requirement in paragraph 2.2.1(d) for a non-climbable zone to prevent a young child from climbing down on the pool side of the barrier. I note this requirement applies even if there appears to be no way for a young child to access the top of the barrier from the neighbouring property.
- 6.14 For the barrier in this case, it is compliance with paragraph 2.2.1(d) that is in issue, specifically the requirement for a non-climbable zone to be constructed as specified in paragraph 2.1.7.
- 6.15 Paragraph 2.1.7 requires there to be no “horizontal projection[s] from the face of the pool barrier greater than 10 mm unless they are at least 900 mm apart vertically”. The authority considers that the junctions where the north and south fences meet the east boundary fence constitute “projections” on the face of the east boundary fence.
- 6.16 As the authority notes, some ambiguity stems from the way paragraph 2.2.1(d) is written, specifically where the paragraph states that a “non-climbable zone” be constructed as specified in paragraph 2.1.7. The requirements in paragraph 2.2.1(d) relate to the *pool side* of a pool barrier. However, the construction specification in paragraph 2.1.7 is written referring to the *outside face* of a pool barrier.
- 6.17 Of course, when applied to any part of a pool barrier not on a property boundary, the reference in paragraph 2.1.7 to the outside face makes sense. Projections of the nature described in paragraph 2.1.7 on an outside face could assist a young child on the property to gain access to a pool area. This would be by providing finger and toe-holds enabling the child to climb up the outside face to the top of the barrier, from where they could lower themselves down into the pool area.
- 6.18 However, where a section of pool barrier is located on a property boundary, it is my view that the construction specifications for paragraph 2.2.1(d) must be applied to the *pool side* of that part of the barrier. This is despite paragraph 2.1.7 specifying that the construction specifications are to be applied to the outside face of a pool barrier.
- 6.19 I have reached this view by considering the wording and purpose of paragraph 2.2.1(d). It explicitly states that the non-climbable zone is required on the *pool side* of the barrier. The purpose of paragraph 2.2.1(d) is clearly explained by the comment immediately following it, which is to “prevent [a child who reaches the top of a boundary barrier from the outside] from *climbing down into the pool area*” [my emphasis]. That being so, it is clear to me that the intent of paragraph 2.2.1(d) is to ensure that there are no finger or toe-holds in the non-climbable zone on the *pool side* of a boundary fence that forms part of a pool barrier.
- 6.20 It follows that the north and south fences are projections from the east boundary fence.¹⁴ They are more than 10 mm from the face of the east boundary fence and are within the non-climbable zone. The north fence has two projections within the non-climbable zone – the top of the fence and the top horizontal rail. The south fence also has two projections – the metal post abutting the east boundary fence and the top horizontal rail. It is my view that all of these projections could provide toe and finger-holds enabling a child to climb down the pool side of the barrier if they were to access the top of the east boundary fence from the neighbouring property.
- 6.21 In conclusion, I agree with the authority that the building work carried out to alter the east boundary fence does not satisfy paragraph 2.2.1(d) of Acceptable Solution

¹⁴ The High Court considered the meaning of “projections” in *Spiller v Hastings District Council* [2013] NZHC 1444 at para [9], stating: “I agree ... that the struts are projections in the way that word is commonly used, as being a part or thing which extends outwards beyond a prevailing line or surface.”

F9/AS1. The outcome of this conclusion is that the Acceptable Solution cannot be relied on to demonstrate the building work's compliance with Clause F9.

Assessment as an alternative solution

- 6.22 The Building Code is performance-based and allows for the use of different methods to achieve compliance. It is not mandatory for pool owners to follow Acceptable Solution F9/AS1 when constructing a pool barrier, and a building consent authority cannot refuse to accept a barrier design on the basis that it is not in accordance with the Acceptable Solution. A barrier can be demonstrated to comply with the Building Code as an alternative solution, and where this is the case, a building consent authority must be satisfied that the barrier meets the performance criteria of Clause F9.
- 6.23 In evaluating an alternative solution, it can be useful to understand the principles behind the criteria provided in the relevant Acceptable Solution. Where a particular design deviates from an Acceptable Solution, it may be necessary for the design to incorporate features that will achieve the same overall result of compliance with the performance criteria of the particular Building Code clause.
- 6.24 As I have already noted, with regards to the owners' pool barrier, the internal fences at the junctions where they meet the east boundary fence provide toe and finger-holds that would assist a child climbing down the inside face of the boundary fence. However, the outside of the east boundary fence has been modified, as part of the building work, so that the horizontal rails on the outside of the barrier now have fillets attached to them that create an additional difficulty for a child wishing to scale the fence. The fillets are triangular shaped lengths of wood that have been installed to the top of the rails, which have the effect of removing the finger and toe-holds created by the rails.
- 6.25 At the time of the site visit there were also no features of the boundary fence or any permanent objects or projections on the outside of the fence that would assist a young child to climb up from outside. The addition of the fillets and lack of any other permanent objects or projections on the outside of the boundary fence reduces the likelihood that a child will be able to access the top of the boundary fence in the first place.
- 6.26 I note also that the area on the neighbour's side of the boundary fence is an immediate pool area; this further reduces the likelihood of a young child attempting to climb the fence because they are restricted from entering that area of the neighbouring property without supervision.
- 6.27 I have summarised my observations regarding the compliance of the building work with Clause F9 as an alternative solution in table 2.

Table 2: Assessment of the building work and altered pool barrier against Clause F9

Performance requirements		My observations
F9.3.1	Must have barriers to restrict access to pool by unsupervised children under 5 years of age	<ul style="list-style-type: none"> Barriers restrict access to pool by unsupervised children under 5 years of age
F9.3.2(a)	Barriers must surround the pool and may enclose whole or part of immediate pool area	<ul style="list-style-type: none"> Barrier encloses immediate pool area
F9.3.3	Barrier must have no permanent objects or projections on outside that could assist children in negotiating barrier	<ul style="list-style-type: none"> Horizontal rails fixed on other side of east boundary fence are 720 mm apart vertically but have fillets on them. There are no finger or toe-holds, and no other permanent objects or projections, which could assist children in negotiating the barrier.

Conclusion on compliance with Clause F9

- 6.28 Taking all of the factors in this case together, I conclude that the building work to alter the east boundary fence complies with Clause F9 as an alternative solution.

Compliance of east boundary fence with section 162C

- 6.29 As I have concluded that the section of the altered pool barrier that is the subject of this determination complies with Clause F9 of the current Building Code, it follows that this section of the pool barrier also currently complies with the obligation in section 162C.

Ongoing requirements

- 6.30 It is important to note, however, that the owners have an ongoing obligation under section 162C for the barrier to remain compliant. Although I have concluded that the east boundary fence currently complies with the Building Code, this may not always be the case.
- 6.31 The compliance of a pool barrier that is on or near a property boundary can be impacted by work carried out on the adjacent property, and is something over which the pool owner may have no control. The types of things that may occur on a neighbouring property that can impact on the compliance of a pool barrier that is constructed on or near a property boundary include a change to the adjacent ground level relative to the height of the barrier, growth or planting of climbable trees beside the barrier, or the construction of a structure or other permanent object or projection on the outside of the barrier.
- 6.32 In this case, the section of the barrier formed by the east boundary fence also serves as a pool barrier for the neighbouring property. Put another way, the area adjacent to the outside of the fence is the immediate pool area for the neighbour's pool. This has the effect that both property owners have ongoing obligations, and a common interest, in ensuring the barrier remains compliant.
- 6.33 I encourage the owners to regularly inspect the area adjacent to the east boundary fence to ensure the ongoing compliance required by section 162C, and to liaise with their neighbours if there is an issue.

- 6.34 It is vital for the parties to be aware, however, that if in future the situation changes and the barrier is rendered non-compliant by developments next door, the owners may be obliged to either take additional measures to ensure the barrier is made compliant again, or drain the pool of water.¹⁵
- 6.35 The obligation for the barrier to remain compliant rests squarely with the owners. There is no provision in the Act or elsewhere to oblige the owner of the neighbouring property to uphold the compliance of the barrier relative to the owners' property. Likewise, the authority cannot take action against a neighbour regarding any actions that may undermine compliance from the owners' side.
- 6.36 The obligation on owners of residential pools to have barriers that restrict the access of children is an ongoing one and, where part of a pool barrier is formed by a boundary fence, this will always have the potential to cause compliance issues.

7. Additional comments – pool inspections and Acceptable Solution F9/AS1

- 7.1 In this case, the pool inspector assessed the compliance of the pool barrier against the criteria in Acceptable Solution F9/AS1. This appears to be a common approach to inspections of pool barriers taken by authorities and independently qualified pool inspectors.
- 7.2 However, as discussed at paragraphs 5.7 and 5.8, under section 162C(2) a pool barrier to an existing pool must comply with the requirements of either the Building Code currently in force (i.e. Clause F9), or the Building Code that was in force when the pool was constructed. While compliance with Acceptable Solution F9/AS1 is one means of satisfying Clause F9, there are other ways of establishing compliance for the purpose of section 162C, including by demonstrating compliance as an alternative solution, or through compliance with the Schedule of FOSPA in applicable cases.
- 7.3 Consequently, when carrying out an inspection of an existing pool, I consider it is important that inspectors are aware of:
- when the pool was constructed
 - whether it was subject to a building consent, code compliance certificate or certificate of acceptance
 - whether it was granted an exemption under FOSPA and the conditions of any such exemption
 - the compliance pathways applicable in the circumstances for establishing compliance with section 162C.

¹⁵ An authority may issue a notice to fix to the owner of a residential pool requiring the pool be drained of water and kept empty until the barrier is made compliant (see section 165(1)(g)).

8. Decision

8.1 In accordance with section 188 of the Building Act 2004, I determine:

- the building work carried out to alter the east boundary fence complies with Clause F9 of the Building Code *Means of restricting access to residential pools*
- the altered east boundary fence complies with section 162C of the Act.

Signed for and on behalf of the Chief Executive of the Ministry of Business, Innovation and Employment on 24 May 2021.

Katie Gordon
National Manager, Determinations

Appendix A: Relevant legislation and regulations

A.1 Building Act 2004

162C Residential pools must have means of restricting access

- (1) Every residential pool that is filled or partly filled with water must have physical barriers that restrict access to the pool by unsupervised children under 5 years of age.
- (2) The means of restricting access referred to in subsection (1) must comply with the requirements of the building code—
 - (a) that are in force; or
 - (b) that were in force when the pool was constructed, erected, or installed (after 1 September 1987) and in respect of which a building consent, code compliance certificate, or certificate of acceptance was issued (in relation to the means of restricting access to the pool).
- (3) In the case of a small heated pool, the means of restricting access referred to in subsection (1) need only restrict access to the pool when the pool is not in use.
- (4) The following persons must ensure compliance with this section:
 - (a) the owner of the pool:
 - (b) the pool operator:
 - (c) the owner of the land on which the pool is situated:
 - (d) the occupier of the property in or on which the pool is situated:
 - (e) if the pool is subject to a hire purchase agreement (as that term is defined in the Income Tax Act 2007), the purchaser of the pool:
 - (f) if the pool is on premises that are not subject to a tenancy under the Residential Tenancies Act 1986 but the pool is subject to a lease or is part of premises subject to a lease, the lessee of the pool or the premises.

162D Periodic inspections of residential pools

- (1) Every territorial authority must ensure that the following residential pools within its jurisdiction are inspected at least once every 3 years, within 6 months before or after the pool's anniversary date, to determine whether the pool has barriers that comply with the requirements of section 162C:
 - (a) residential pools other than small heated pools:
 - (b) small heated pools that have barriers that are not exempt, in terms of Schedule 1, from the requirement to have a building consent.
- (2) A territorial authority may accept a certificate of periodic inspection from an independently qualified pool inspector for the purpose of subsection (1) in lieu of carrying out an inspection under section 222.
- (3) If a territorial authority decides not to accept a certificate of periodic inspection from an independently qualified pool inspector under subsection (2), the territorial authority must, within 7 working days of making that decision, give notice to the chief executive of the decision and the reasons for the decision.
- (4) If an independently qualified pool inspector inspects a pool for the purpose of this section and decides that the pool does not have barriers that comply with the requirements of section 162C (subject to any waiver or modification granted under section 67A or 188), the inspector must, within 3 working days of the date of inspection, give written notice to the relevant territorial authority of the decision, attaching any information that the chief executive requires to accompany the notice.

A.2 Building Code

Clause F9 – Means of restricting access to residential pools

Objective

F9.1 The objective of this provision is to prevent injury or death to young children involving residential pools.

Functional requirement

F9.2 Residential pools with a maximum depth of water of 400 mm or more that are filled or partly filled with water must have means of restricting access that prevents unsupervised access by a child under 5 years of age.

Performance

F9.3.1 Residential pools must have or be provided with physical barriers that restrict access to the pool or the immediate pool area by unsupervised young children (ie, under 5 years of age).

F9.3.2 Barriers must either—

(a) surround the pool (and may enclose the whole or part of the immediate pool area); or

...

F9.3.3 A barrier surrounding a pool must have no permanent objects or projections on the outside that could assist children in negotiating the barrier.

...

A.3 Acceptable Solution F9/AS1

2.1 Pool barriers

2.1.1 A pool barrier can be a fence but may also take other forms of construction, such as a concrete block wall.

2.1.2 Pool barriers not on a property boundary shall have a height of not less than 1200 mm from the finished floor or ground level outside the pool barrier.

2.1.3 Pool barriers shall not be angled more than 15° from vertical and may only slope away from the pool. Any rails, rods or wires forming a part of a pool barrier that are not themselves vertical shall be at least 900 mm apart vertically to restrict climbing. There shall be no openings in the pool barrier that a 100 mm diameter sphere could pass through.

...

2.1.6 There shall be no ground features or objects outside a pool barrier within 1200 mm of the top of the barrier that would assist a child in climbing. Figure 2 gives acceptable methods for evaluating this requirement.

2.1.7 Any projections or indentions on the outside face of a pool barrier shall not have a horizontal projection from the face of the pool barrier greater than 10 mm unless they are at least 900 mm apart vertically.

...

2.2 Pool barrier on a property boundary

2.2.1 If a pool barrier is located on a property boundary, it shall:

a) Be not less than 1800 mm high, measured from the ground level on the pool side, and

...

- d) Have a 900 mm high zone on the pool side of the barrier that begins not more than 150 mm from the top and is constructed as specified in Paragraphs 2.1.3 and 2.1.7, to restrict climbing by children.

Comment:

Should a child gain access to the top of the barrier from the outside, this construction method will prevent them from climbing down into the pool area.