



## Determination 2011/075

### Regarding the refusal to issue code compliance certificates for an 18-year-old house and with 14-year-old additions, and an 11-year-old garage and workshop at 38 Totaranui Road, Otaki



#### 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, Department of Building and Housing (“the Department”), for and on behalf of the Chief Executive of that Department. The applicant is the owner, Otaki River Farm Trust acting through an agent (“the applicant”), and the other party is the Kapiti Coast District Council (“the authority”), carrying out its duties and functions as a territorial authority or building consent authority.

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

1.2 This determination arises from the decision of the authority to refuse to issue code compliance certificates for an 18-year-old house and garage, a 14-year-old pergola and porch addition, and an 11-year-old garage/workshop because it was not satisfied that the building work complied with the Building Code (First Schedule, Building Regulations 1992). The authority's primary concerns about the compliance of the building relate to the weathertightness of the cladding and the age of the building work (refer paragraph 3.6).

1.3 The matter to be determined<sup>2</sup> is therefore whether the authority was correct to refuse to issue the three code compliance certificates. In deciding this, I must consider:

#### 1.3.1 **Matter 1: The external envelope**

Whether the external envelopes of the buildings comply with Clauses<sup>3</sup> E2 External Moisture and B2 Durability of the Building Code. The "external envelope" includes the cladding of each of the buildings, their configuration and components, junctions with other building elements, formed openings, and penetrations.

#### 1.3.2 **Matter 2: the durability considerations**

Whether the elements that make up the building work comply with Clause B2 Durability of the Building Code, taking into account the age of the building work.

1.4 I note that the parties have not raised any matters relating to other clauses of the Building Code and this determination is therefore restricted to whether the buildings comply with Clauses B2 Durability and E2 External moisture.

1.5 In making my decision, I have considered the submissions of the parties, the report of the expert commissioned by the Department to advise on this dispute ("the expert"), and the other evidence in this matter.

## 2. **The building work**

2.1 The building work consists of three separate buildings; a house with porch and pergola additions and two outbuildings. The buildings are located on a flat rural section that has been classified as a high wind zone for the purposes of NZS 3604<sup>4</sup> but are relatively sheltered by substantial garden plantings and other landscape features. The building work was carried out under three consents as follows:

- the house and the first outbuilding
- the additions to the house (the pergola and porch)
- the second outbuilding.

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

<sup>3</sup> In this determination, unless otherwise stated, references to sections are to sections of the Act and references to clauses are to clauses of the Building Code.

<sup>4</sup> New Zealand Standard NZS 3604:1999 Timber Framed Buildings

## 2.2 The house and additions

- 2.2.1 The house is a two-storey building in a simple, steep-pitched gable roof style. It has a small hip-roofed section adjacent to the front entry porch, and smaller low-pitched accessory roofs on either side of the house that form the entry porch and rear porch for the house.
- 2.2.2 A porch and pergola is attached to the southern wall of the house. The roof of the pergola is a metal-tiled steeply-pitched gable style to match the main roof of the house.
- 2.2.3 The main roof of the house is clad with chip-covered metal roof tiles, and incorporates a number of skylights to provide natural lighting for the rooms in the upper level of the building. The front and rear porch roofs are clad with butynol membranes.
- 2.2.4 The house has two feature chimneys which have both recently been capped with new flashings on their upper surfaces. The house has a concrete foundation, and is clad with a direct-fixed monolithic cladding system over H1-treated timber framing or ply bracing. The joinery is recessed aluminium with sloping sills.

## 2.3 The first outbuilding

- 2.3.1 The first outbuilding incorporates a two-storey garage (“the first outbuilding”) containing a workshop, office, toilet, shower, and general storage space. This building has been constructed under the same consent and in the same form as the house, and its foundation, cladding, framing, and roof style and materials are identical to those used in the construction of the house.
- 2.3.2 The first outbuilding also incorporates a centrally-positioned clock tower which penetrates the roof structure at the apex of the building.

## 2.4 The second outbuilding

- 2.4.1 The second large detached garage and workshop (“the second outbuilding”) is a prefabricated building on a concrete foundation. It has a profiled metal cladding over timber framing, metal joinery and flashings, and garage doors on both front and rear elevations. The second outbuilding includes a bell tower.
- 2.5 The expert noted that the timber framing used in the house and the first outbuilding was marked as H1 treated framing. The timber framing used in the second outbuilding was unmarked, although it had the appearance of H1 treated framing. Although the external wall framing is likely to be treated, the treatment level may be insufficient to resist decay if the timber absorbs and retains moisture.

## 3. Background

- 3.1 On 11 October 1993, the authority issued a building consent (No. 930987) for the construction of the original house and the first outbuilding. The authority’s records

show that a number of inspections were undertaken by the authority between November 1993 and March 1994.

- 3.2 On 25 July 1996, the authority wrote to advise the applicant that a code compliance certificate had not yet been issued in relation to building consent No. 930987. The authority also stated that a final inspection was required before the certificate could be issued.
- 3.3 The authority subsequently issued a second building consent (No. 970347) on 30 April 1997 for the construction of a pergola and the addition of a porch to the house.
- 3.4 The application for a third building consent, for the construction of the second outbuilding, was made by a building certifier<sup>5</sup> on behalf of the applicant and was received by the authority on 15 March 2000.
- 3.5 The third building consent (No. 000441) was subsequently issued by the authority on 13 April 2000 for the construction of the second outbuilding. I have seen no records of inspections undertaken for the second outbuilding.
- 3.6 On 9 February 2005 the authority wrote to the applicant following a meeting at the property between the applicant and the authority. In the letter, the authority stated that

Given that 10 year period [since consent No. 930987 was issued] ... Council is reluctant to issue a code compliance certificate which would in effect extend that period for a further 10 years.

The authority further stated that it would consider issuing a code compliance certificate if one of the following three actions was taken:

- A new warranty issued by the roofing and texture coating manufacturer/installer [to extend the roofing and cladding life] for a further 10 years
  - An independent weathertightness report supplied by a recognised Weathertight (sic) expert
  - The exterior of the [house] be reclad or recoated by an approved/licensed applicator.
- 3.7 At a meeting between the authority and the applicant on 5 April 2011, the authority stated that a code compliance certificate could not be issued for the building work due to the time lapse between completion of the building work and the request for a code compliance certificate. The authority also stated that there was a concern about durability and weathertightness considerations.
- 3.8 An application for a determination was received by the Department on 13 April 2011 relating to the issue of a code compliance certificate for each consent.

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<sup>5</sup> The building certifier was duly registered under the former Building Act 1991, but ceased operating as a certifier before it had issued code compliance certificates for the building work.

## **4. The submissions**

- 4.1 The applicant forwarded copies of the plans and specifications for the building work, copies of some of the inspection records and correspondence between the parties. The applicant also provided a copy of the authority's CD which contained details of the property file.
- 4.2 The authority did not acknowledge the application for a determination, nor did it make a submission in response to it.
- 4.3 A draft determination was sent to the parties on 13 July 2011. The draft was issued for comment and for the parties to agree a date when the building work complied with Clause B2.
- 4.4 The authority did not accept the determination. In a letter dated 15 July 2011 the authority said it disputed the determination decision that the authority had not exercised its powers correctly in refusing the code compliance certificates for consents No 970347 and 000441. It submitted that had the applicant applied for a modification of Clause B2.3.1 it was likely this would have been considered and accepted. It was the authority's view that as such an application was not made, the action taken in refusing the code compliance certificate 'was the only option open to [the authority] at the time'. The submission sought to have the determination amended to reflect this position.
- 4.5 The applicant accepted the draft determination. In a letter to the Department dated 3 August the applicant disputed the authority's submission and noted that on meeting with the submission's author on 5 April 2011 to seek advice '... as to the way forward to obtain a CCC' there was no indication 'to the effect that the way forward was to apply for a modification, reaching agreement and the issue of a CCC. [The advice given] was to make an application for a determination.'
- 4.6 In my view the authority's position, as described in paragraph 4.4, is not supported by its advice to the owner or the Department about the matter to be determined.
- 4.7 Both parties agreed that compliance with B2, in respect of consent No. 970347 was achieved in January 1998, and in respect of consent No. 000441 was achieved in December 2000.

## **5. The expert's report**

- 5.1 As mentioned in paragraph 1.5, I engaged an independent expert to provide an assessment of the condition of those building elements subject to the determination. The expert is a member of the New Zealand Institute of Building Surveyors. The expert inspected the house on 31 May 2011, and furnished a report that was completed on 10 June 2011.

## 5.2 General

- 5.2.1 The expert noted that the original structure appeared as per the original consent documents.
- 5.2.2 The expert was of the view that the exterior claddings of the buildings were generally in good condition, and the work appeared to have been completed to a high standard overall.

## 5.3 Moisture levels

- 5.3.1 The expert inspected the interior of the house and both outbuildings and checked external walls for moisture with a non-destructive meter. In the house, the expert noted evidence of moisture ingress only at the window sill in the ground floor study and evidence of water damage to paint work in the en-suite bathroom wall above the study. The non-invasive moisture readings in the interior area around the ground floor study window ranged from 27-35%.
- 5.3.2 In the first outbuilding, the expert noted evidence that a leak had occurred from the clock tower causing some minor damage to the particleboard lining in the tower. There was however no evidence of moisture in the first outbuilding, and the expert observed that the leak in the tower appeared to have occurred a considerable time ago.
- 5.3.3 The expert found no evidence of moisture ingress in the second outbuilding.
- 5.3.4 As a result of the non invasive checks the expert also took eight invasive moisture readings at areas considered at risk in the exterior walls of the house, and one reading in the exterior wall of the first outbuilding,. The expert noted the following elevated readings or signs of moisture:

### The house

- 27% in the framing adjacent to the laundry window on the south elevation
- 25% in the framing adjacent to the kitchen window on the eastern elevation
- 22% in the framing adjacent to the kitchen window on the northern elevation
- 22% in the cladding adjacent to the lounge window on the northern elevation
- 27% in the cladding adjacent to the lounge window on the western elevation
- 46% in the framing adjacent to the lounge window on the mid-western elevation (decay from the sill was evident on the drillings)
- 35% in the framing adjacent to the study window on the western corner

### The first outbuilding

- 52% adjacent to the window on the western elevation.

(Only one invasive moisture reading was taken for the first outbuilding to provide an indication of the likely extent of moisture ingress into that building, given the similarity in construction methods and materials in both the first outbuilding and the house.)

- 5.4 I note that moisture readings above 18%, or which vary significantly, generally indicate that moisture is entering the structure and further investigation is needed. Readings over 30% indicate that the timber is saturated and decay will be inevitable over time.
- 5.5 The expert also undertook destructive testing adjacent to the western corner study window, and found that the window flashings appeared to have been installed in accordance with the manufacturer's recommendations at the time, including sealing of the mitred junctions. However, this was noted as being an early EIFS<sup>6</sup> system with perforated sill flashings that the expert considered had allowed water to penetrate the cladding and enter the structure.
- 5.6 The expert noted that the sill flashings were embedded in the plaster as intended. However, it was noted that some windows sills were also embedded in the plaster and did not have the required gap between the sill of the aluminium joinery and the cladding to allow water to drain to the exterior.
- 5.7 Commenting specifically on the external envelope of the buildings, the expert noted that:
- elevated moisture levels are present in the vicinity of the windows in the house and first outbuilding arising from the window installation system
  - there could be decayed timber resulting from the moisture levels in framing adjacent to the windows
- 5.8 A copy of the expert's report was provided to the parties on 13 June 2011.

## **Matter 1: The external envelope**

### **6. Weathertightness**

6.1 The evaluation of building work for compliance with the Building Code and the risk factors considered in regard to weathertightness have been described in numerous previous determinations (for example, Determination 2004/1).

#### **6.2 Weathertightness risk**

6.2.1 The house and both outbuildings have the following environmental and design features which influence its weathertightness risk profile:

##### **Increasing risk**

- the buildings are sited in a high wind zone
- all three buildings have two stories
- there are no eaves on any of the buildings

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<sup>6</sup> Exterior Insulation and Finish System

- the EIFS cladding is direct fixed to the framing

#### **Decreasing risk**

- the external envelopes of the buildings are relatively simple in plan and form
- the roof/wall intersections of the buildings are not exposed.

6.2.2 When evaluated using the E2/AS1 risk matrix, the weathertightness features outlined in paragraph 6.2.1 show the house and outbuildings have a medium weathertightness risk rating. I note that if the details shown in the current E2/AS1 were adopted as a means of compliance, the cladding would require a drained cavity. However, I also note that a drained cavity was not a requirement of E2/AS1 at the time of construction.

### **6.3 Weathertightness conclusion**

6.3.1 I consider the expert's report establishes that the current performance of the external envelope of the house and the first outbuilding is not adequate because it is allowing water penetration through the cladding around the windows. Consequently I am satisfied that the house and the first outbuilding (being the building work under consent No. 930987) do not comply with Clause E2 of the Building Code.

6.3.2 I consider the expert's report establishes that the current performance of the external envelope of the additions to the house and the second outbuilding meet the requirements of the Building Code.

6.3.3 In addition, the building envelopes of the building work are required to comply with the durability requirements of Clause B2. Clause B2 requires that a building continues to satisfy all the objectives of the Building Code throughout its effective life, and that includes the requirement for the house to remain weathertight. Because the claddings of the house and the first outbuilding are currently allowing ingress of moisture, the building work does not comply with the durability requirements of Clause B2.

6.3.4 The faults identified in the external envelope are discrete in nature but are related to the performance of all the windows. I consider further investigation is necessary to determine the cause of the water ingress, the extent of possible damage to the timber framing as a result water ingress over the 18 years since the cladding was installed to the house and first outbuilding, and to establish the ongoing compliance of the external framing with Clause B1 Structure.

## **Matter 2: The durability considerations**

### **7. Discussion**

7.1 The relevant provision of Clause B2 of the Building Code requires that building elements must, with only normal maintenance, continue to satisfy the performance requirements of the Building Code for certain periods ("durability periods") from the time of issue of the applicable code compliance certificate (Clause B2.3.1).



- 7.2 In previous determinations (for example Determination 2006/85) I have taken the view that a modification of this requirement can be granted if I can be satisfied that the building complied with the durability requirements at a date earlier than the date of issue of the code compliance certificate, that is agreed to by the parties and that, if there are matters that are required to be fixed, they are discrete in nature.
- 7.3 Clause B2.3.1 of the Building Code requires that building elements must, with only normal maintenance, continue to satisfy the performance requirements of the Building Code for certain periods (“durability periods”) from the time of issue of the applicable code compliance certificate. These durability periods are:
- 5 years if the building elements are easy to access and replace, and failure of those elements would be easily detected during the normal use of the building
  - 15 years if building elements are moderately difficult to access or replace, or failure of those elements would go undetected during normal use of the building, but would be easily detected during normal maintenance
  - the life of the building, being not less than 50 years, if the building elements provide structural stability to the building, or are difficult to access or replace, or failure of those elements would go undetected during both normal use and maintenance.
- 7.4 In this instance case the delay between the completion of the building work in 1993, 1997 and 2000, and the applicant’s request for a code compliance certificate in 2011, raises the matter of when all the elements of the building, with the exception of those areas of non-compliance addressed in this determination, complied with Clause B2. Various elements of the buildings are now well through or beyond their required durability periods, and would consequently no longer comply with Clause B2 if a code compliance certificate were to be issued effective from today’s date.
- 7.5 However, in conjunction with this I also need to consider the nature and extent of the defects, the length of time that they may have been evident, and their consequential impact on the building’s compliance with other Building Code clauses, particularly Clauses B1 Structure and E2 External Moisture.
- 7.6 With respect to the consent for the house and first outbuilding, because of the extent of the defects in the external envelope, and the possible consequential impact on the building’s timber framing and therefore its structure, I am not satisfied that there is sufficient information on which to make a decision in respect to Clause B2 at this time.
- 7.7 With respect to the additions to the house, and the second outbuilding, I consider it is appropriate to modify the requirements of Clause B2.3.1
- 7.8 It is not disputed, and I am therefore satisfied, that all the building elements in respect of consent No. 970347 complied with Clause B2 on 1 January 1998; and in respect of consent No. 000441 complied with Clause B2 on 1 December 2000 (refer paragraph 4.7).
- 7.9 In order to address these durability issues when they were raised in previous determinations, I sought and received clarification of general legal advice about

waivers and modifications. That clarification, and the legal framework and procedures based on the clarification, is described in previous determinations (for example, Determination 2006/85). I have used that advice to evaluate the durability issues raised in this determination.

7.10 I continue to hold the view, and therefore conclude that:

- The authority has the power, on application of the owner, to grant an appropriate modification of Clause B2 in respect of the building elements.
- It is reasonable to grant such a modification because in practical terms, the building is no different from what it would have been if a code compliance certificate had been issued when the building work was completed.

7.11 I suggest that the authority record this determination, and any modification resulting from it, on the property file and also on any LIM issued concerning this property.

## **8. The appropriate certificate to be issued**

8.1 Having found that the building work can be brought into compliance with the Building Code, I must now determine whether the authority can issue either a certificate of acceptance or a code compliance certificate for the third building consent (No. 000441).

8.2 Section 437 of the Act provides for the issue of a certificate of acceptance where a building certifier is unable or refuses to issue either a building certificate under section 56 of the former Act, or a code compliance certificate under section 95 of the current Act. In such a situation, a building consent authority may, on application, issue a certificate of acceptance. In the case of the building work completed under this consent, the owner is seeking a code compliance certificate for the building consent.

8.3 In this situation, where I have reasonable grounds to conclude that the building work is compliant with the Building Code, I take the view that a code compliance certificate is the appropriate certificate to be issued.

## **9. What is to be done now?**

9.1 The authority should issue a notice to fix that requires the owner to bring the building work relevant to consent No. 930987 into compliance with the Building Code, identifying the items listed in paragraph 5.7 and referring to any further the further defects that may be discovered in the course of investigation and rectification. It is not for the notice to fix to specify how the defects are to be remedied and the building brought to compliance with the Building Code. That is a matter for the owners to propose and for the authority to accept or reject.

9.2 The applicant should then produce a response to this in the form of a detailed proposal, produced in conjunction with a competent and suitably qualified person, as to the rectification or otherwise of the specified matters. Any outstanding items of

disagreement can then be referred to the Chief Executive for a further binding determination.

- 9.3 Once the matters set out in paragraph 5.7 have been rectified to its satisfaction, the authority may issue a code compliance certificate in respect of the building consent No. 930987 amended as set out in paragraph 8.

## 10. The decision

- 10.1 In accordance with section 188 of the Building Act 2004, I hereby determine that the building work completed in respect of building consents No. 970347 and No. 000441 complies with the Building Code and that the authority incorrectly exercised its power in refusing to issue the code compliance certificates for this work. Accordingly, I reverse the authority's decision to refuse to issue the code compliance certificates for building consents No. 970347 and No. 000441.

- 10.2 In accordance with section 188 of the Building Act 2004, I also determine that the building work completed in respect of building consent No. 930987 does not comply with the Building Code Clauses B2 Durability and E2 External Moisture, and accordingly I confirm the authority's decision to refuse to issue a code compliance certificate for consent No. 930987.

- 10.3 I also determine that:

- a) all the building elements installed in respect of building consent No. 970347 complied with Clause B2 on 1 January 1998
- b) all the building elements installed in respect of building consent No. 000441 complied with Clause B2 on 1 December 2000
- c) Building consent No. 970347 is hereby modified as follows:

The building consent is subject to a modification to the Building Code to the effect that Clause B2.3.1 applies from 1 January 1998 instead of from the time of issue of the code compliance certificate.
- d) Building consent No. 000441 is hereby modified as follows:

The building consent is subject to a modification to the Building Code to the effect that Clause B2.3.1 applies from 1 December 2000 instead of from the time of issue of the code compliance certificate.

Signed for and on behalf of the Chief Executive of the Department of Building and Housing on 12 August 2011.

John Gardiner  
**Manager Determinations**