



## Determination 2013/035

### Regarding the refusal to issue a code compliance certificate for a 14-year-old house and a 15-year-old quarantine building at 591 Ridgens Road, Darfield



#### 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 current Act”) made under due authorisation by me, John Gardiner, Manager Determinations and Assurance, Ministry of Business, Innovation and Employment (“the Ministry”), for and on behalf of the Chief Executive of the Ministry.
- 1.2 The parties to the determination are:
  - R and S Robb, the owners of the properties (“the applicants”) acting through a lawyer (“the applicants’ legal adviser”)
  - Selwyn District Council, carrying out its duties as a territorial authority or building consent authority (“the authority”).
- 1.3 The matter to be determined<sup>2</sup> is whether the authority correctly exercised its powers of decision when it refused to issue a code compliance certificate for either of the two buildings, because it was not satisfied that they complied with certain clauses of the Building Code<sup>3</sup> (First Schedule, Building Regulations 1992) that were current at the time the building consent was issued. The authority’s concerns relate primarily to the weathertightness of the external envelope.
- 1.4 In making my decision, I have considered the submissions of the parties, the report of the expert commissioned by the Ministry (“the expert”), and the other evidence in this matter.
- 1.5 The relevant section of the current Act is set out in Appendix A.

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

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

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

## 2. The building work

2.1 The building work in question consists of two buildings; a two-storey house with a single-storey kitchen area and a woodshed, and a separate single-storey quarantine building consisting of ostrich runs and an attached office, hatchery, and ablution block. Both buildings are situated on a gently-undulating site in a high wind zone for the purposes of NZS 3604<sup>4</sup>.

### 2.2 The house

- 2.2.1 The house is of timber-frame construction built over a concrete slab, and is two storeys in part with the upper story located within the roof space and a tower. It is fairly complex in plan and form, with a square tower situated at the west end and a portico with arched openings to the north elevation.
- 2.2.2 The main roofs are steeply pitched, clad with pre-painted metal long-run corrugated roofing, and generally have good eaves and verge projections. The flat-pitched roof to the tower and the low-level woodshed roof have membrane claddings and the tower roof has eaves projections to all elevations.
- 2.2.3 The main exterior walls are clad with either a stone veneer with a cavity in some areas, and in others a two-coat 21 to 24 mm thick wire mesh-reinforced plaster stucco system fixed on a plywood rigid substrate that is directly fixed over building paper to the wall framing. The attached woodshed has a plywood and batten exterior lining. The exterior joinery for both the house and woodshed is aluminium.
- 2.2.4 A recessed timber-framed balcony is constructed over a habitable space at the upper floor level at the west elevation and its deck is covered with ceramic tiles fixed over a ply substrate. A metal framed balustrade is top-fixed through the tiled decking at the exposed perimeter of the balcony.
- 2.2.5 A pergola is constructed at the north elevation and this consists of a shaped timber beams supported by circular columns.
- 2.2.6 I note that the specification for the house requires framing timber to be 'treated to NZMP 3640'. However, the expert was unable to establish whether the wall framing was treated, but based on the date of construction, was of the opinion that it was untreated.

### 2.3 The quarantine building

- 2.3.1 The quarantine building is a specific design consisting of timber-framed construction built over a concrete slab. The structure is supported on tanalised timber poles and the roof is supported by a manufactured truss roof system. Lean-to porches are situated at one end of the building.
- 2.3.2 The walls and roof of the main building are covered with unpainted corrugated steel fixed directly to the framing members, and there are no eaves or verge projections. The office, hatchery, and ablution block has weatherboard external wall linings directly fixed to the framing and an unpainted corrugated steel roof covering. Only the west elevation of this block has an eaves projection.

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

- 2.3.3 The expert was of the opinion that apart from the poles to the quarantine building, the external timber wall framing was untreated. The building was assessed by the expert to have a low weathertightness risk

### **3. Background**

- 3.1 The authority issued building consent No R416454 (which I have not seen) for the quarantine building on 12 February 1997, and building consent No R418659 for the house on 1 September 1998. Both consents were issued under the Building Act 1991 (“the former Act”). The authority carried out various inspections of the building works during construction between 1997 and 2000.

#### **3.2 The quarantine building**

- 3.2.1 Following an inspection of the quarantine building on 2 September 1998, the authority recorded on a “Notice of Inspection” dated 19 October 1998:

Minor rectification: before issue of CCC

- 1 W/C ventilation to complete to open air (mechanical) type.
- 2 Bracing (Roof plan bracing) requires tensioning brackets.

The notice also stated that “All work inspected is in accordance with the Building Consent”.

- 3.2.2 The authority issued an interim code compliance certificate dated 15 October 1998 for the quarantine building that covered all work described in the building consent, with the exception of the rectification work listed in the Notice of Inspection.
- 3.2.3 Following a further inspection of the quarantine building on 10 September 2012, the authority recorded that all the outstanding items listed on the Notice of Inspection were now complete.

#### **3.3 The house**

- 3.3.1 Inspections carried out between September 1998 and August 1999 noted the following:
- Inspection on 8 September 1998 – ‘Engineer has done prepour inspection’, no re-inspection was required.
  - Inspection on 1 June 1999 – ‘[stone veneer] not inspected at ½ high went over with Engineer – long ties & cavity seen 85mm OK’, and re-inspection required.
  - Inspection on 10 August 1999 – ‘Recheck preline bracing panels. All panels now complete as per Engineers instructions’, no re-inspection was required.
- 3.3.2 The authority inspected the house on 14 September 1999 and in a Notice of Inspection, listed 10 items that required attention.
- 3.3.3 The authority issued an interim code compliance certificate dated 28 June 2000 for the house that covered all work described in the building consent, with the exception of 10 items listed in an attached Notice of Inspection dated 14 September 1999.
- 3.3.4 The authority inspected the house on 10 September 2012 noting outstanding items from an inspection on 17 July 2000 and ‘10 items complete’ and recording the outstanding items.

- 3.3.5 The authority re-inspected the house on 25 September 2012 noting ‘Those works requiring rectification now complete by owner’. The notice referred to the owner being unable to obtain an ‘electrical certificate’. The inspection notice noted that no re-inspection was required.
- 3.3.6 On 26 September 2012 the applicants applied for a code compliance certificate for the house.
- 3.3.7 In a letter to the applicants dated 9 October 2012, the authority noted that the application for a code compliance certificate was made some 14 years after the building consent was granted. Accordingly, the authority considered that it was unable to meet its statutory obligations in terms of sections 91 and 436 of the Act.
- 3.3.8 The authority went on to say that as the house was practically complete by September 1999, the authority could not be satisfied on reasonable grounds that it would now meet the durability provisions of the Building Code. The authority referred to the inspection it carried out on 10 September 2012 noting the following as items that had ‘a direct bearing on weathertightness and maintenance’ being:
- Decayed soffit
  - Overflowing gutters
  - Open void between the raking soffit and stone cladding
  - Pergola timbers penetrating the stone cladding
- 3.3.9 The authority listed three inspections that had not been completed (stone veneer mid-height inspection, pre-plastering inspection to the exterior plaster, pre-pour inspection of ‘block work’), and noted an engineers ‘construction review statement’ had not been provided as required by the consent conditions and the electrical energy works certificate and the results of the potable water tests had also not been provided.
- 3.4 The Ministry received an application for a determination on 16 October 2012.

## **4. The submissions**

- 4.1 In a covering letter dated 12 October 2012 forwarded with the application, the applicants’ legal adviser noted that when the two interim code compliance certificates were issued only minor matters required attention. Subsequently, the authority had stated that the outstanding items listed in the various authority notices had been completed.
- 4.2 The adviser also submitted that the two structures met the requirements of the Building Code that was current at the time they were constructed and that all items requiring rectification had been attended to.
- 4.3 The applicant attached copies of
- floor plans for the house
  - some of the authority’s inspection notices for both buildings
  - the two interim code compliance certificates
  - an electrical certificate of compliance
  - the letter from the authority dated 9 October 2012.

- 4.4 In a letter to the Ministry dated 30 October 2012, the authority gave some of the background to the matter. The authority also stated that while it had received an application for a code compliance certificate for the quarantine building on 15 December 1997, it had not received a new application when the work was completed. The authority holds the view that concerns regarding the durability issues of the house also apply to the quarantine building. A copy of an energy certificate had not been provided. The authority considered that the opinions expressed in its letter to the applicants dated 9 October 2012 were still relevant.
- 4.5 The authority attached copies of
- the specification and the bracing plan
  - the building consent and project information memorandum for the house
  - some of the authority's inspection notices for the house.
- 4.6 The applicants' legal adviser provided an electrical energy works certificate to the Ministry on 26 November 2012. The certificate appears to be in respect of an underground mains cable only.
- 4.7 Copies of a draft determination were issued to the parties for comment on 23 January 2013.
- 4.8 The authority did not accept the draft and provided a submission dated 22 February 2013 that also commented on the expert's report. The authority noted some errors in fact, and considered that the reference made by the expert to further investigation should also be included. I have amended the determination accordingly.
- 4.9 The authority also submitted that
- the expert had not cited 'the results of required potable water tests or any recent potable water tests as required by the NZ Drinking Water Standard' and that compliance with Clause G12.1(a) and G12.3.2(a) had not been established
  - while the energy work is part of the consented building work and an energy works certificate is not provided, the authority cannot be satisfied that the work is compliant.
  - the expert's report includes a photo that 'appear[s] to show non-compliance with NZS5261'<sup>5</sup> (the non-compliance was not stated)
  - the engineer's inspections (refer paragraph 3.3.1) do not confirm inspection of structural steel, 'steel support' for the Oamaru stone veneer, the concrete-filled blockwork; and the June 1999 inspection required the engineer to check the roof bracing.
  - The authority submitted that its concern about compliance in relation to previously identified defects was due to these being 'superficially repaired' without addressing underlying damage or defects.
- 4.10 The applicants' legal adviser made no response to the draft determination despite several requests to do so.

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<sup>5</sup> New Zealand Standard NZS 5261:2003 Gas installation

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

### **5.1 General**

- 5.1.1 As described in paragraph 1.4, I engaged the services of an expert who is a member of the New Zealand Institute of Building Surveyors, to assist me. The expert examined the buildings on 26 and 30 November 2012 and produced a report that was completed on 3 December 2012. Copies of this report were forwarded to the parties on 13 December 2012.
- 5.1.2 The report described the house in general terms and gave some of the background to the dispute. The expert stated that while the workmanship was to a reasonable standard, little or no maintenance had been carried out, and some of the construction details were at a high risk of moisture penetration.
- 5.1.3 The expert also noted that there were three instances where the constructed work differed from that shown on the consented plans. These were
- the lack of a drainage lake to accommodate the house surface water discharge
  - an enlarging of the office, hatchery, and ablution block areas of the quarantine building
  - the addition of a lean-to porch to the south elevation of the quarantine building.

### **5.2 Moisture levels**

- 5.2.1 The expert carried out a visual inspection of the buildings and observed areas where water damage was evident as follows:
- Damage where a shower waste in the house had leaked. (The applicants said this was earthquake-related.)
  - Moisture damage to the plaster walls of the house laundry that the expert considered might be due to lack of ventilation during the use of a clothes dryer. However, the damage at the ceiling line was consistent with water being trapped behind the paintwork. The expert also noted that there was a bathroom located above the laundry.
  - Visual evidence of water staining to the interior of the quarantine building and water damage to the timber framing of the lean-to.
- 5.2.2 The expert undertook non-invasive and invasive moisture inspections on the external walls of the house in a number of areas considered to be at risk and recorded 21% at the tower junction with the single level structure to the west. Removal of a section of damaged plaster at this location confirmed damage and degradation of the building paper.
- 5.2.3 The expert noted that the limited investigations undertaken had shown leakage in at least one location and that the methods of construction around windows and roof to wall junctions suggest that further leaks are likely to be discovered. The expert was of the view that further investigation is required into the extent of the damage caused by moisture ingress.

### 5.3 Clauses E1 and E2

5.3.1 In regard to the disposal of surface water the expert noted:

- The surface water system was adequate.
- Spouting was yet to be installed to the lean-to roof.
- The hidden spouting/downpipe junctions of the main house roof, together with the insufficient falls in the spouting, prevented rainwater from adequately draining, resulting in the evident corrosion of the spouting.
- The ground level slope of the adjoining ground towards the quarantine building could result in a possible future ponding issue.

5.3.2 Commenting specifically on the envelope of the house, the expert noted:

#### **Walls**

- There was visual evidence of vertical and horizontal cracking of the main wall stucco plaster and of cracking and gaps at the junctions with the exterior joinery.
- There was no visual evidence that a control joint had been installed at the inter-storey location of the stucco plaster.
- There were isolated areas where the base of the stucco plaster was finished hard onto the unpaved ground.
- As the stucco plaster extended over the face of the external joinery, there was a significant risk that moisture could migrate behind the cladding.
- No visible flashings had been installed to the balcony window.
- The base of the plywood woodshed lining was in close proximity to the unpaved ground and visible damage was evident.
- There was no provision for drainage and ventilation in the stone veneer.
- In order to meet the manufacturer's instructions, the stone veneer required to be waterproofed with an approved silicone sealer.
- The cavity behind the stone veneer was not vermin/bird-proofed, and there was wide-spread nesting by birds in the soffits and wall cavities.
- The pergola penetrations through the veneer were not sealed and there was evidence of decay of the untreated timber.
- Spouting penetrated the cladding in one location.

#### **Roofs**

- Nail fixings had worked loose.
- An internal main roof membrane-covered gutter discharged under the roofing,
- A wall/gutter termination was poorly formed, as was a rolled barge flashing junction with the stucco plaster.
- The hidden downpipe/spouting junctions at the main roof posed a problem as leaks will be inevitable as the sealants deteriorate, with the risk of moisture migration behind the timber fascia.

- The membrane roofing over the woodshed did not discharge correctly into the spouting; there was evidence of ponding to this roofing and the roof/wall junctions were poorly formed.
- The gable flashing to the glass conservatory roof was poorly detailed and there was evidence of water staining on the exposed roof timbers.

### **Balcony**

- The junction of the balcony with the house walls was poorly detailed, with evidence of moisture penetration at these locations.
- The surface water run-off from the balcony penetrated beneath the edge channel into the wall framing.

5.3.3 Commenting specifically on the envelope of the quarantine building, the expert noted:

- The metal wall cladding was in contact with the finished ground at some locations. However, there was no visible evidence that any damage has occurred at these areas.
- There was visual evidence of the roof deflecting, as shown by the undulations to the roof covering.
- Based on the evidence of moisture damage to the timber framing, it was likely that the metal roofing trays over the office, hatchery, and ablutions block had not been adequately turned up.

## **5.4 Remaining code requirements**

5.4.1 The expert was satisfied that the requirements of Clause F2 Hazardous building material, F4 Safety from falling, G1 Personal hygiene, G2 Laundering, and G3 Food preparation and prevention of contamination, and Clause G12 Water supplies were met as regards both buildings. Apart from the lack of gully surrounds, the expert was also of the opinion that the requirements of G13 Foul water had been achieved.

5.4.2 The expert noted that there was no evidence that an energy certificate relating to the 9kg gas storage bottle installation in the woodshed had not been produced.

5.4.3 The expert also noted that both buildings had visual evidence of damage due to the recent Christchurch earthquakes. Given the extent of damage to internal linings that might compromise structural performance, the expert recommended that an engineer should be consulted to verify the performance of both buildings.

## **6. Establishment of compliance with the Building Code**

### **6.1 General**

6.1.1 The transitional provision in section 436 of the current Act requires the authority to consider an application for a code compliance certificate under the former Act. Section 43(3) of the former Act (as modified by section 436(3) of the current Act) requires the authority to issue a code compliance certificate 'if it is satisfied on reasonable grounds that the building work to which the certificate relates complies with the building code that applied at the time the building consent was granted'.



## **6.2 Clause E2 External Moisture, B2 Durability**

- 6.2.1 The authority's concerns relate primarily to potential weathertightness problems with the buildings. I consider the expert's report clearly establishes that the current performance of the building envelope in both cases is not adequate because there is evidence of moisture penetration. Consequently, I am satisfied that neither the house nor the quarantine building complies with Clause E2 of the Building Code.
- 6.2.2 In addition, the buildings are required to comply with the durability requirements of Clause B2. Clause B2 also requires that a building continues to satisfy all the objectives of the Building Code throughout its effective life, and that includes the requirement for it to remain weathertight. Because the cladding faults on the house and the quarantine building will continue to allow the ingress of moisture in the future, I consider that neither building complies with Clause B2.
- 6.2.3 Given the findings of the expert in respect of the buildings' envelopes and the possible lack of treatment to the external framing, the two buildings require further investigation into the causes, extent, level and significance of moisture ingress and any possible decay, and replacement of framing timber if required. I note here that the cladding materials on the house are already 14 years old, and those on the quarantine building are 15 years old, the latter of which is the minimum effective life required for these elements.

## **6.3 Clause B1 Structure**

- 6.3.1 The inspection notices (refer paragraph 3.3.1) confirm the involvement of the engineer and the outcome of the inspections by the engineer. The authority's advice that the engineer now provides a construction review statement some 14 years after the relevant inspections would now appear to be of limited relevance. It is noted that some items are not specifically referred to as being inspected by the engineer, but it is apparent that the engineer was present at the time when some of the work concerned would have been able to be inspected. The majority of the building is clad in stone veneer, with only limited areas of concrete-filled blockwork.
- 6.3.2 The Building Code is a performance-based document and the buildings appear to have performed satisfactorily, with respect to structure, in the period since completion: this period includes significant earthquake events in 2010 and 2011. I concur with the expert's opinion (refer paragraph 5.4.3) that the effects of the damage to internal linings require verification. Accordingly I consider there is currently insufficient evidence for me to make a decision as to the compliance of both buildings with Clause B1.

## **6.4 Clauses G9 Electricity, and G11 Gas as an energy source**

- 6.4.1 The applicant's agent has provided an electrical energy works certificate but this appears to be in respect of an underground mains cable only. While section 94(3) of the Act says that failure to provide an energy works certificate is 'sufficient reason' to refuse to issue a code compliance certificate, the absence of a certificate does not prevent a code compliance certificate from being issued. I remain of the view this provision allows the authority to apply this requirement as it considers appropriate. As the building work is in the order of 13 to 15 years old, the provision of an electrical energy works certificate at this time would appear to be of limited value.

- 6.4.2 While the expert noted that there was no evidence that an energy certificate relating to the 9kg gas storage bottle installation in the woodshed, I note that gasfitting in respect of a 9kg LPG supply is not required to be certified under the provisions of the Gas (Safety and Measurement) Regulations 2010. I take this to mean that an energy works certificate cannot be required.
- 6.4.3 The authority contends that the gas installation does not comply with NZS5261. The non-compliance is not stated, however, it is likely to relate to the 9kg cylinder not being physically restrained: an appropriate restraint is required.

## **6.5 The remaining code clauses**

- 6.5.1 Based on the expert's opinion I am satisfied that the requirements of Clauses F2, F4, G1, G2, G3, have been met.
- 6.5.2 The authority contends that it does not have sufficient evidence to be satisfied that the water supply is potable and therefore complies with Clause G12. Water is potable if it is safe for drinking: while no ill effects have been reported about the water being used, the provision of test certificates would provide reasonable grounds that G12 was being satisfied. I consider there is insufficient evidence for me to decide that the work complies with Clause G12 Water supplies.
- 6.5.3 Compliance with Clause G11 has not been achieved in respect of the restraint of the 9Kg LPG cylinder.
- 6.5.4 Compliance with Clause G13 has not been achieved as surface water is able to enter the foul water drainage system via the unprotected gulley traps.

## **6.6 Conclusions**

- 6.6.1 The house does not comply with the requirements of Clause E2, Clause B2 insofar as it relates to Clause E2, and Clauses G11 and G13.
- 6.6.2 I conclude that the authority correctly exercised its powers when it refused to issue code compliance certificate for the house and the quarantine building.

## **7. Modification of the durability periods in Clause B2.3.1**

- 7.1 I note that the age of the building work will also raise concerns regarding compliance with Clause B2.3.1, taking into consideration the age of the building work and the alleged delay in seeking a code compliance certificate.
- 7.2 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).
- 7.3 I continue to hold the views expressed in previous relevant determinations; that an authority, following the appropriate application from the owner, has the power to grant a modification to the Building Code requirements of an existing building consent without a determination (refer also to the article titled 'Modification of durability periods' in Codewords Issue 39, August 2009<sup>6</sup>). I am of the view that a modification of this requirement can be granted if the authority can be satisfied that the building complied with the durability requirements at a date earlier than the date

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<sup>6</sup> Codewords articles are published by the Ministry and are available on the Ministry's website at [www.dbh.govt.nz/codewords-index](http://www.dbh.govt.nz/codewords-index)

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.

- 7.4 Because of the extent of further investigation required and the potential impact of such an investigation on the external envelope, I am not satisfied that there is sufficient information on which to make a decision about this matter at this time and I leave this matter to the parties to resolve in due course.
- 7.5 I strongly suggest that the authority record this determination and any modifications resulting from it, on the property file and also on any LIM issued concerning this property.

## **8. What happens next?**

- 8.1 The authority should issue a notice to fix requiring the applicants to bring the buildings into compliance with the Building Code. The notice should identify the defects listed in paragraph 5 and the investigation referred to in paragraph 6.2.3, and refer to any further defects that might be discovered in the course of investigation and rectification. The notice should not specify how those defects are to be fixed; it is not for the notice to fix to stipulate how the defects are to be remedied and the buildings brought to compliance with the Building Code; that is a matter for the owner to propose and for the authority to accept or reject. It is important to note that the Building Code allows for more than one means of achieving code compliance.
- 8.2 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 be referred to the Chief Executive for a further binding determination.
- 8.3 I also note that the expert has described some differences between the buildings as constructed and the consented plans. I recommend that the parties take the necessary steps to amend the consent to record the as-built construction.

## **9. The Decision**

- 9.1 In accordance with section 188 of the Building Act 2004, I determine that:
- the house does not comply with Clauses B2, E2, G11, and G13 of the Building Code that was current at the time the building consent was issued,
  - the quarantine building does not comply with Clauses B2, E2, and G13 of the Building Code that was current at the time the building consent was issued, and
  - the authority correctly exercised its powers when it refused to issue a final code compliance certificate for either the house or the quarantine building, and those decisions are confirmed.

9.2 I have insufficient evidence to make any decision in respect of Clause B1 Structure and Clause G12 Water supplies.

Signed for and on behalf of the Chief Executive of the Ministry of Business, Innovation and Employment on 27 June 2013.

John Gardiner  
**Manager Determinations and Assurance**

## Appendix A: the Legislation

### A.1 The Building Act 2004

#### **436 Transitional provision for code compliance certificates in respect of building work carried out under building consent granted under former Act**

- (1) This section applies to building work carried out under a building consent granted under section 34 of the former Act.
- (2) An application for a code compliance certificate in respect of building work to which this section applies must be considered and determined as if this Act had not been passed.
- (3) For the purposes of subsection (2), section 43 of the former Act—
  - (a) remains in force as if this Act had not been passed; but
  - (b) must be read as if—
    - (i) a code compliance certificate may be issued only if the territorial authority is satisfied that the building work concerned complies with the building code that applied at the time the building consent was granted; and
    - (ii) section 43(4) were omitted.