



## Determination 2012/045

### Refusal to issue a code compliance certificate for a 12-year-old house with monolithic cladding at 19 Smylie Close, Ohauti, Tauranga



#### 1. The matters 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, A Pritchard (“the applicant”), and the other party is Tauranga City Council (“the authority”), carrying out its duties as a territorial authority or building consent authority.
- 1.2 This determination arises from the decision of the authority to refuse to issue a code compliance certificate for a 12-year-old house, because it is not satisfied that the building work complies with certain clauses<sup>2</sup> of the Building Code (First Schedule, Building Regulations 1992). The authority’s concerns about the compliance of the building work relate to its age and to the weathertightness of the cladding (see paragraph 4.2).
- 1.3 The matter to be determined<sup>3</sup> is therefore whether the authority was correct to refuse to issue a code compliance certificate. In deciding this, I must consider whether the external building envelope of the house complies with Clause B2 Durability and Clause E2 External Moisture of the Building Code. The building envelope includes

<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.

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

the components of the systems (such as the monolithic cladding, the windows, the roof claddings and the flashings), as well as the way the components have been installed and work together. (I consider this in paragraph 6.)

- 1.4 I note that a building certifier inspected the construction of this house in 1999/2000 on the authority's behalf. The company ceased operating as a building certifier in 2005, but continued operating under a different name as the authority's agent to provide inspection services for the authority. In this determination, both entities are therefore referred to as "the authority's contractor".
- 1.5 In making my decisions, I have considered the applicant's submission, 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 a detached house situated on a gently sloping sheltered site in a medium wind zone for the purposes of NZS 3604<sup>4</sup>. The expert takes the front of the house as north-facing, and this determination follows that convention. The single-storey house is simple in plan and form and is assessed as having a low weathertightness risk.
- 2.2 Construction is generally conventional light timber frame, with concrete foundations and floor slab, monolithic wall cladding, aluminium windows and profiled steel roof cladding. The 20° pitch hipped roof has eaves projections of about 600mm. The expert noted no evidence of timber treatment and, given the date of framing installation in 1999, I consider that the wall framing of this house is not treated.
- 2.3 The monolithic wall cladding is a proprietary flush-finished fibre-cement cladding system that consists of 7.5mm thick fibre-cement sheets fixed directly through the building wrap to the framing, and finished with an applied textured coating system.

## **3. Background**

- 3.1 The authority issued a building consent for the house (No. 1500) to the applicant on 18 November 1999 under the Building Act 1991.
- 3.2 The authority's contractor carried out various inspections during construction, including pre-line building inspections in December 1999. The final inspection on 7 February 2000 was recorded in the inspection summary as 'fail pending completion of ground work'. The authority's contractor issued an interim code compliance certificate, also dated 7 February 2000.
- 3.3 I have seen no record of correspondence between the parties until the applicant contacted the authority in 2011 and was verbally advised of the need for a compliance assessment of the house. The applicant subsequently engaged a property inspection company to report only on the completion of ground works. (I note this is in line with the requirements as noted on 7 February 2000.)

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

- 3.4 The inspection company provided a report dated 11 April 2011 titled 'Report/final inspection on ground works'. No moisture testing was carried out and inspection findings were limited to commenting on ground levels, cladding clearances and the completion of the landscaping and the driveway.
- 3.5 The authority apparently continued to refuse to issue a code compliance certificate for the house, although I have seen no correspondence giving reasons for that refusal. The authority's submission (see paragraph 4.2) indicates that the refusal related to ongoing compliance of the house, particularly in regard to 'possible weathertight issues'.
- 3.6 The Department received an application for a determination on 13 March 2012.

## **4. The submissions**

- 4.1 The applicant's submission stated that the authority refused to issue a code compliance certificate 'due to age of building'. The applicant provided copies of:
- a floor plan and photographs of the house
  - the inspection company's report dated 11 April 2011.

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

- 4.2.1 In a letter to the Department dated 14 March 2012, the authority noted that the applicant had been verbally advised to 'engage a Building Surveyor to carry out an assessment of the dwelling to establish its ongoing compliance with the NZ Building Code'. The report that was provided deals primarily with ground levels and failed 'to address any possible weathertightness issues of the dwelling.'
- 4.2.2 The authority provided copies of:
- the authority's contractor's inspection summary
  - the interim code compliance certificate dated 7 February 2000.
- 4.3 A draft determination was issued to the parties for comment on 7 May 2012. Both parties accepted the draft without further comment; with the responses received from the authority and applicant on 14 May and 17 June 2012 respectively.

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

- 5.1 As mentioned in paragraph 1.5, I engaged an independent expert to assist me. The expert is a member of the New Zealand Institute of Building Surveyors and inspected the house on 23 April 2012; providing a report dated 26 April 2012.
- 5.2 The expert considered that the wall cladding was 'straight and generally well fixed', with the texture coating generally in good condition but due for maintenance and re-painting. The expert noted that roof flashings appeared satisfactory and 'not suspect', with roof penetrations 'well sealed/flashed'.

5.3 The expert observed that windows and doors had been face-fixed against the fibre-cement backing sheets prior to applying the coating system. The expert inserted a blade behind a window jamb flange and noted that there was no sign of seals behind the flanges, with a small fillet of sealant applied at the edge of the frame.

## 5.4 Moisture levels

5.4.1 The expert inspected the interior of the house and took non-invasive moisture readings; noting no evidence of moisture penetration.

5.4.2 The expert took invasive moisture readings through the wall cladding into the framing at 21 locations considered to be at particular risk of moisture penetration. Readings varied from 7% to 15%, and the expert concluded that no moisture was currently entering the structure.

5.5 Commenting specifically on the external envelope of the house, the expert noted that:

- the cladding is due for re-painting
- there is no evidence of vertical control joints in walls longer than 5.4m, and cracking has occurred at several locations
- windows are face-fixed against fibre-cement backing sheets, with no seals behind jamb flanges and the coating applied after the window installation.

5.6 The expert also made the following comments:

- Although cladding clearances at the entry and the garage door are reduced, drainage channels are fitted at the entry and the fall at the garage door is sufficient to prevent water ponding against the cladding.
- Although joinery head flashings do not extend past the jambs to the extent recommended by the manufacturer, window and door heads are well protected beneath 600mm eaves and moisture levels are low in the framing below.
- Although the meter box relies on sealant for weatherproofing, it is sheltered beneath 600mm eaves and moisture levels are low in the framing below.

5.7 A copy of the expert's report was provided to the parties on 3 May 2012.

## 6. Discussion

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

### 6.2 Weathertightness risk

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

#### Increasing risk

- the cladding is fixed directly to the framing

- the external wall framing is not treated to a level that provides resistance to decay if it absorbs and retains moisture.

#### **Decreasing risk**

- the single-storey house is fairly simple in plan and form
- although in a medium wind zone, the house is fairly sheltered
- the single ground level deck has a free-draining timber floor
- there are generous eaves to shelter the cladding.

6.2.2 When evaluated using the E2/AS1 risk matrix, these features show that the elevations of the house demonstrate a low weathertightness risk rating. I note that, if the details shown in the current E2/AS1 were adopted to show code compliance, flush-finished fibre-cement cladding would require a drained cavity at all risk levels. However, I also note that a drained cavity was not a requirement at the time of construction.

### **6.3 Weathertightness performance**

6.3.1 Taking account of the expert's comments in paragraph 5.5, I conclude that remedial work is necessary in respect of the following areas:

- the lack of vertical control joints in walls longer than 5.4m, with cracks apparent at several locations
- for the face-fixed windows, the lack of seals behind jamb flanges and the lack of drainage gaps at sill flanges.

6.3.2 I also note the expert's comments as outlined in paragraph 5.6 and accept that these areas are adequate in these particular circumstances. I consider the repainting of the cladding to be a normal maintenance requirement.

### **6.4 Weathertightness conclusion**

6.4.1 I consider the expert's report establishes that the current performance of the flush-finished fibre-cement cladding is adequate because there is no evidence of moisture penetration into the timber framing after 12 years. Consequently, I am satisfied that the house currently complies with Clause E2 of the Building Code.

6.4.2 However, the building envelope is also 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 cladding faults will allow the ingress of moisture in the future, the building work does not comply with the durability requirements of Clause B2.

6.4.3 Because the identified cladding faults occur in discrete areas, I am able to conclude that satisfactory rectification of the items outlined in paragraph 6.3.1 will result in the external envelope being brought into compliance with Clauses B2 and E2 of the Building Code.

6.4.4 Effective maintenance of claddings is important to ensure ongoing compliance with Clauses B2 and E2 of the Building Code and is the responsibility of the building

owner. The Department has previously described these maintenance requirements, including examples where the external wall framing of the building may not be treated to a level that will resist the onset of decay if it gets wet (for example, Determination 2007/60).

## **6.5 The durability considerations**

- 6.5.1 I accept that the age of the building work raises concerns regarding the durability, and hence the compliance with the Building Code, of certain elements of the house, taking into consideration the age of the building work. I have issued a number of determinations, to which the authority has been a party, that have involved a modification of Clause B2.3.1.
- 6.5.2 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>5</sup>). I note that in this case the date of the final inspection on 7 February 2000 may be appropriate, and I leave this matter to the parties to resolve in due course.

## **7. The actions of the authority**

- 7.1 In regard to this house, the main evidence as to code compliance is able to be gathered from the inspection summary, the performance of the exterior envelope over the past 12 years, and a visual assessment of the claddings; which may or may not reveal that further evidence needs to be gathered to determine compliance. However, the authority has not attempted to assess compliance.
- 7.2 Had an appropriate inspection of this conventional low-risk house been carried out in response to the request for a code compliance certificate, the authority should have been able to readily identify any defects requiring attention and any requirement for further investigation; without needing the applicant to apply for a determination. Any requirement for a determination should follow such an inspection, not precede it.
- 7.3 In addition, the authority provided no formal refusal of a code compliance certificate to the applicant. It is important that, should an owner be declined a code compliance certificate, they be given clear and appropriate reasons why. The owner can either then act on those reasons or apply for a determination if they dispute them.

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

- 8.1 A notice to fix should be issued that requires the owner to bring the house into compliance with the Building Code, including the defects identified in paragraph 6.3.1, but not specifying how those defects are to be fixed. It is not for the notice to fix to specify how the defects are to be remedied and the building brought to

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<sup>5</sup> Codewords articles are published by the Department and are available on the Department’s website at [www.dbh.govt.nz/codewords-index](http://www.dbh.govt.nz/codewords-index)

compliance with the Building Code. That is a matter for the owners to propose and for the authority to accept or reject.

- 8.2 I suggest that the parties adopt the following process to meet the requirements of paragraph 8.1. The applicant should produce a response to the notice to fix in the form of a detailed proposal, produced in conjunction with a competent and suitably qualified person, as to the investigation and 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. The decision**

- 9.1 In accordance with section 188 of the Building Act 2004, I hereby determine that the external building envelope does not comply with Building Code Clause B2 insofar as it relates to Clause E2, and accordingly I confirm the authority's decision to refuse to issue a code compliance certificate.

Signed for and on behalf of the Chief Executive of the Department of Building and Housing on 8 June 2012.

John Gardiner  
**Manager Determinations**