



Determination 2010/054

Refusal to issue a code compliance certificate for a 7-year-old house completed under the supervision of a building certifier at 33 Margaret Place, Omokoroa



1. The matters to be determined

- 1.1 This is a determination under Part 3 Subpart 1 of the Building Act 2004¹ (“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 applicants are the owners G and C Cressy (“the applicants”) and the other party is the Western Bay of Plenty District 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 7-year-old house because it was not satisfied that the building work complied with certain clauses² of the Building Code (First Schedule, Building Regulations 1992). The refusal arose because the original building work had been undertaken under the supervision of Bay Building Certifiers (“the building certifier”), which was duly registered as a building certifier under the former Building Act 1991, but which ceased operating as a certifier before it had issued a code compliance certificate for the building work.

¹ The Building Act, Building Code, Compliance documents, past determinations and guidance documents issued by the Department are all available at www.dbh.govt.nz or by contacting the Department on 0800 242 243.

² 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.

1.3 The matter to be determined³ is therefore whether the authority was correct to refuse to issue a code compliance certificate. In deciding this, I must consider:

1.3.1 Matter 1: The external envelope

Whether the external claddings to the house (“the claddings”) comply with Clause B2 Durability and Clause E2 External Moisture of the Building Code. The claddings include the components of the systems (such as the fibre-cement claddings, the windows, the roof claddings and the flashings), as well as the way the components have been installed and work together. (I consider this matter in paragraph 8.)

1.3.2 Matter 2: The remaining Building Code clauses

Whether the building complies with the remaining clauses relevant to this house. (I consider this matter in paragraph 9.)

1.3.3 Matter 3: The durability considerations

Whether the elements that make up the building work comply with Building Code Clause B2 Durability, taking into account the age of the house. (I consider this matter in paragraph 10.)

1.4 Based on the information and records supplied, I consider there is sufficient evidence available to allow me to reach a conclusion as to whether this building complies with the Building Code. This determination therefore considers whether it is reasonable to issue a code compliance certificate. In order to determine that, I have addressed the following questions:

- Is there sufficient evidence to establish that the building work as a whole complies with the Building Code?
- If not, are there sufficient grounds to conclude that, once any outstanding items are repaired and inspected, the building work will comply with the Building Code?

I address these questions in paragraph 6.

1.5 In making my decisions, I have considered the submission of the applicants, the report of the expert commissioned by the Department to advise on this dispute (“the expert”) and the other evidence in this matter. With regard to weathertightness, I have evaluated this information using a framework that I describe more fully in paragraph 8.1.

2. The building work

2.1 The two-storey detached house is situated on an exposed gently sloping site in a high wind zone for the purposes of NZS 3604⁴. Construction is generally conventional light timber frame, with a concrete slab and foundations, aluminium windows, profiled metal roofing and four types of fibre-cement wall claddings.

³ Under section 177(b)(i) of the Act

⁴ New Zealand Standard NZS 3604:1999 Timber Framed Buildings

2.2 While the underlying form and plan of the house is fairly simple; the variety of wall claddings, the decks and the addition of projecting walls, curved and sloping walls and decorative ‘pilasters’ result in a fairly complex form that incorporates some complex junctions. The house is assessed as having a high weathertightness risk.

2.3 The 20° pitch profiled metal gable roof has eaves and verges of about 600mm, with several flat membrane roofs over ground floor projections on the east elevation. At the north and south ends, the ground floor extends beyond the gable end upper level walls to provide garage and workshop areas, with sloping curved walls to the ends (“the curved walls”).

2.4 The decks

2.4.1 There are two enclosed decks situated over the ground floor north and south garage areas. The large north deck extends from the living area, and includes a timber pergola supported from stainless steel posts. The smaller south deck opens from the master bedroom and the dining area, which is recessed beneath the roof overhang.

2.4.2 The decks have tiled membrane floors and curved monolithic-clad balustrades on the north and south sides, which are a continuation of the curved walls below. The east and west balustrades are glass and stainless steel, with the handrail continuing over the monolithic-clad balustrades.

2.5 The monolithic claddings

2.5.1 The monolithic wall claddings appear to be two different types of flush-finished fibre-cement; one used on the curved north and south walls and the other on the east and west pilasters. The pilasters are two-storeys high, with flat faces and sloping sides. The curved walls are framed structures that slope inwards from a wide base at ground level to a narrower depth at the top of the deck balustrade. The slope of the walls results in window reveals of varying depths.

2.5.2 The monolithic cladding system to the curved walls is solid plaster over a solid backing, which incorporates 4.5mm thick fibre-cement backing sheets fixed through the building wrap directly to the timber framing. A 10mm layer of insulating plaster is applied over the sheets, followed by a fibreglass-reinforced layer of plaster and a final plaster sponge finish.

2.5.3 The monolithic cladding system to the pilasters consists of 7.5 mm thick fibre-cement sheets fixed through the building wrap to the framing, and finished with an applied textured coating system.

2.5.4 The manufacturer of the monolithic cladding systems provided installation details (dated May 1998) that included base details, sealed horizontal and vertical control joints, inter-cladding junctions and window details. The approved installer of the proprietary plaster systems used on the monolithic claddings has provided a producer statement dated 28 July 2003, which identifies the types of coating/plaster and notes that they were applied in July 2003 in accordance with all of the manufacturer’s application requirements.

2.6 The other wall claddings

- 2.6.1 The upper walls of the house are clad with 16 mm thick fibre-cement weatherboards fixed through the building wrap to the framing and finished with two coats of acrylic paint. The manufacturer has provided proprietary flashings, soakers and other accessories, along with installation details for junctions and window details.
- 2.6.2 The lower walls are clad with a panelised system comprising 9 mm thick fibre cement flat sheets fixed through the building wrap to the framing and finished with two coats of acrylic paint. The cladding has 10 mm vertical expressed joints back-sealed with butyl rubber strips and compressible foam seals. The manufacturer has provided installation details (dated May 1998) for panel joints and other junctions.
- 2.7 The expert noted that the framing exposed within the garage/workshop appears to be boric treated, with the applicant confirming that all framing was boric treated. Given this evidence, I accept that the wall framing of this house is likely to be treated.

3. Background

- 3.1 The authority issued a building consent (No. 68156) on 8 November 2002 under the Building Act 1991. I note that the applicant was also the builder of the house.
- 3.2 The building certifier carried out the following inspections:
- foundations on 15 November 2002 (which passed)
 - pre-pour slab inspections on 29 November and 5 December 2002 (which passed)
 - pre-line plumbing inspection on 20 May 2003 (which passed)
 - pre-line building inspections on 20 May and 4 June 2003 (which passed on re-inspection)
 - insulation inspection on 11 June 2003 (which passed)
 - pre-stopping inspection on 16 July 2003 (which passed)
 - drainage inspection on 7 August 2003 (which passed).
- 3.3 On 30 June 2005, without having carried out a final building inspection or issued a code compliance certificate, the building certifier ceased to operate as a building certifier.
- 3.4 In June 2006, the authority sent out pro-forma letters to owners of buildings that had been constructed under the supervision of the building certifier; and it appears that the applicants received such a letter, although I have not seen a copy.
- 3.5 In the pro-forma letter, the authority explained that when the building certifier ceased operating, an agreement had been made to complete outstanding inspections on the building certifier's projects and make recommendations regarding the issuing of code compliance certificates. The authority went on to explain that the liability for building work imposed by the Act meant that '...before [the authority] accepts such liability by issuing [code compliance certificates] it must be satisfied inspections

carried out by [the building certifier] were satisfactory...'. The authority explained that further inspections were therefore required in order to determine whether a code compliance certificate of certificate of acceptance could be issued.

3.6 The applicants did not follow up the authority's letter until they needed to sell the property and sought a code compliance certificate from the authority. I have no evidence that the authority inspected the house.

3.7 The authority responded in a letter to the applicants dated 3 March 2010, noting the time lapsed since the last inspection by the building certifier in August 2003. The authority declined to issue a code compliance certificate as it considered that 'reasonable progress' had not been made on the building work.

3.8 The Department received the application for this determination on 8 March 2010.

4. The submissions

4.1 The applicants' submissions

4.1.1 The applicants forwarded copies of:

- the consent drawings and specifications
- the building certifier's inspection summary
- the authority's letter dated 3 March 2010
- various producer statements, technical details and other information.

4.2 The authority acknowledged the application but made no submission.

4.3 A determination was issued to the parties on 17 May 2010. The draft was issued for comment and for the parties to agree a date when the house complied with Building Code Clause B2 Durability.

4.4 The applicant accepted the draft determination without comment.

4.5 The authority accepted the draft determination and noted:

- the building certifier did not act of the behalf of the authority
- the applicant was notified in writing specifying the reasons that the authority would not issue a code compliance certificate, and the reasons were initially set out in the pro forma letter of June 2006.

4.6 Both parties agreed that compliance with Clause B2 was achieved on 1 September 2003.

5. The authority's reason for its refusal

- 5.1 In its letter to the applicants dated 3 March 2010, the authority refused to issue a code compliance certificate due to the lack of 'reasonable progress' of the building work, considering this alone was sufficient reason for the refusal. I do not accept a lack of progress to be an appropriate reason without clarification of how progress was unreasonable in this situation and why that has led to the building work not complying with the Building Code.
- 5.2 As far as I am aware, the authority has not inspected this house or made any attempt to assess the code compliance of the building work. The authority has also made no submission for this determination, so has not provided me with any evidence of why it considers the house is not code compliant.
- 5.3 I do not believe that this is acceptable. It is important that, should an owner be declined a code compliance certificate or a certificate of acceptance, they be given clear reasons why. The owners can either then act on those reasons or apply for a determination if they dispute them.

6. Grounds for the establishment of code compliance

- 6.1 In order for me to form a view as to the code compliance of the building work, I established what evidence was available and what could be obtained considering that the building work is completed and some of the elements were not able to be cost-effectively inspected.
- 6.2 In the absence of any evidence to the contrary, I take the view that I am entitled to rely on the inspection records, but I consider it important to look for evidence that corroborates these records. I also consider that the level of that reliance is influenced by the information available to me and also by my evaluation of the house. Due to the number of wall claddings and the complexity of the junctions associated with some of the features of this house, I consider it important to verify that the certifier's inspections of the external envelope were properly carried out.
- 6.3 In summary, I find that the following evidence allows me to form a view as to the code compliance of the building work as a whole:
- the record of inspections carried out by the building certifier, which indicates satisfactory inspections of most of the building work (refer paragraph 3.2)
 - the drawings, photographs, producer statements and technical information
 - the expert's report on the exterior building envelope as outlined below.

7. The expert's report

7.1 As mentioned in paragraph 1.5 and paragraph 6.3, I engaged an independent expert to assist me in the evaluation of the external building envelope. The expert is a member of the New Zealand Institute of Building Surveyors. The expert inspected the house on 13 and 28 April 2010 and provided a report that was completed on 3 May 2010.

7.2 General

7.2.1 The expert noted that the house generally appeared to accord with the consent drawings and specifications. The overall standard of finish to the claddings was 'very good', with the cladding 'well fixed and aligned' and the roof flashings 'tidy and effective'. The claddings had been well maintained, with no 'visual signs of cracking or premature deterioration'.

7.2.2 The expert noted that ground clearances to the wall claddings were satisfactory and penetrations appeared to be well sealed. Junctions between different claddings had underlying 'inseal' flashings as per the manufacturer's instructions, with anti-capillary gaps provided at the inter-storey horizontal band.

7.2.3 The expert noted that control joints were not required for the dimensions of the panelised fibre-cement cladding. Within the monolithic-clad walls, control joints had been installed that appeared to be in accordance with the manufacturer's instructions at the time of construction, with the joints sealed with painted sealant.

7.3 The expert inspected the interior of the house, taking non-invasive moisture readings internally, and noted no evidence of moisture. The expert also took 5 invasive moisture readings through the cladding at areas considered at high risk, along with a further 17 invasive readings using long probes from the inside. Except for a reading of 16% beside the entrance, moisture levels ranged from 8% to 14%.

7.4 The windows

7.4.1 The expert noted that the windows and doors appeared to have been installed satisfactorily in accordance with the manufacturers' instructions at the time for the different types of wall claddings, with metal head flashings to all windows.

7.4.2 The windows in the fibre cement weatherboards and the panelised sheet cladding were face-fixed with satisfactory metal head flashings, sealed jambs and uPVC sill flashings. Plugs were installed at the jambs in the weatherboards. Moisture readings below jamb to sill junctions indicated no signs of moisture penetration.

7.4.3 The windows in the curved north and south sloping walls are recessed by about 500mm at the heads, with the reveals increasing in depth to more than 1m at the bottom of the wall. The recess soffits are painted fibre-cement, with drip edges at the outer edge to prevent moisture tracking towards the heads. Moisture readings beside the recessed windows indicated no signs of moisture penetration.

7.5 The decks

- 7.5.1 The expert noted that deck tiles were laid over liquid-applied membrane, with satisfactory falls provided. Each deck had two drainage outlets, with two additional overflows provided. Clearances beneath the cladding and from the deck to the interior were satisfactory. The expert also noted that the deck doors were marked as safety glass.
- 7.5.2 Although tops to the curved clad balustrades were plastered, the expert noted that a fall of 15° had been provided. The owner advised the expert that handrail support penetrations had been ‘carefully silicone sealed prior to screw fixing the handrail’ (which is confirmed in the producer statement provided by the balustrade installers). The expert noted that moisture testing below the penetrations indicated no signs of moisture penetration at the penetrations.
- 7.5.3 The expert also noted that the metal pergola posts were side-fixed against the balustrades and the timbers appeared to be well sealed against the cladding, with moisture testing under the penetrations revealing no signs of moisture penetration.
- 7.6 The expert concluded that the claddings had been satisfactorily installed in accordance with manufacturers’ instructions and trade practice at the time of construction and, based on his findings, was satisfied that:
- ...the dwelling meets the relevant clauses of the building code and given the cladding has performed satisfactorily for 7 years now, subject to adequate maintenance being maintained, it would be reasonable to assume that the cladding will likely continue to perform to the requirements of E2 External Moisture and B2 Durability of the New Zealand Building Code.
- 7.7 A copy of the expert’s report was provided to the parties on 3 May 2010.

Matter 1: The external envelope

8. Weathertightness

- 8.1 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).

8.2 Weathertightness risk

- 8.2.1 The external envelope of this house has the following environmental and design features which influence its weathertightness risk profile:

Increasing risk

- the house is two storeys
- the house is in a high wind zone
- the house is reasonably complex in plan and form, with four types of claddings
- there are some complex junctions at the roof to wall intersections
- there are two enclosed decks at first floor level

Decreasing risk

- there are 600mm deep eaves and verges to shelter the cladding, and the windows are sheltered by deep recesses.

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

8.3 Weathertightness performance

8.3.1 Taking account of the expert's report, the claddings appear to have been installed in accordance with good trade practice in accordance with the manufacturers' instructions at the time of construction.

8.3.2 Notwithstanding the fact that the wall claddings are fixed directly to the framing, thus inhibiting free drainage and ventilation behind the cladding, I have noted certain compensating factors that assist the performance of the claddings in this particular case:

- there is no evidence of moisture penetration after about 7 years
- the claddings are installed according to good trade practice, and in accordance with the manufacturers' instructions at the time of construction.

8.3.3 These factors can assist the building to comply with the weathertightness and durability provisions of the Building Code.

8.4 Weathertightness conclusion

8.4.1 I consider the expert's report establishes that the current performance of the building envelope is adequate because it is preventing water penetration through the claddings at present, and that there are also no cladding faults on the house likely to allow the ingress of moisture in the future. Consequently, I am satisfied that the house complies with Clauses E2 and B2 of the Building Code.

8.4.2 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 (for example, Determination 2007/60).

Matter 2: Other clause requirements**9. Discussion**

9.1 In assessing the compliance of this house with other relevant Building Code clauses, I have taken into account the consent drawings, the building certifier's inspection records, the producer statements and warranties, and the other evidence. In addition, I have considered the expert's general comments regarding the high quality materials and workmanship of the internal and external finishes to the house.

9.2 With respect to the remaining code clauses relevant to this house, I make the following observations:

B1 Structure

- The house is a fairly simple conventional structure and the inspection summary notes satisfactory inspections of the foundations, concrete block and the floor slab. The summary also notes that the bracing was passed during the pre-line inspections.

E1 Surface water

- The house site is gently sloping, with the ground sloping away from the walls. The inspection summary indicates satisfactory inspections of drainage, with an as-built drainage plan submitted to the authority.

E3 Internal moisture

- The expert noted no signs of moisture damage to the interior. A producer statement dated 5 February 2003 has been provided for the underlying waterproofing of the tiled areas and the workmanship in the tile installation was guaranteed for 5 years from 16 April 2003.

F2 Hazardous building materials

- The shower screens would have been inspected during the pre-line and pre-stopping inspections, and the expert has noted that the deck doors were marked as safety glass.

F4 Safety from falling

- The expert noted no problems and confirmed that the deck balustrades complied.

G1 Personal hygiene, G2 Laundering, G3 Food preparation G4 Ventilation and G5 Interior environment G7 Natural light, G8 Electricity and G8 Artificial light

- The expert confirmed that the house generally complies with the consent drawings; and the drawings show adequate provision to comply with the requirements.

G12 Water Supplies and G13 Foul Water

- The inspection summary indicates satisfactory inspections of drainage, with an as-built drainage plan submitted to the authority.

H1 Energy Efficiency

- The building certifier's inspection summary indicates that satisfactory preline and insulation inspections were undertaken.

- 9.3 I consider that the expert's general comments, the building certifier's inspection records and the other documentation, allow me to conclude that the building work is likely to comply with the remaining relevant clauses of the Building Code.

Matter 3: The durability considerations

10. Discussion

- 10.1 The authority also has 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 completed in 2003.
- 10.2 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).
- 10.3 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.
- 10.4 In this case the delay between the completion of the building work in 2000 and the applicant's request for a code compliance certificate has raised concerns that various elements of the building 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. I have not been provided with any evidence that the authority did not accept that those elements complied with Clause B2 at a date in 2003.
- 10.5 It is not disputed and therefore I am satisfied that compliance with Clause B2 was achieved on 1 September 2003. This date has been agreed between the parties, refer paragraph 4.6.
- 10.6 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.

10.7 I continue to hold that view, and therefore conclude that:

- the authority has the power to grant an appropriate modification of Clause B2 in respect of all the building elements.
- it is reasonable to grant such a modification, with appropriate notification, as in practical terms the building is no different from what it would have been if a code compliance certificate for the building work had been issued in 2003.

10.8 I strongly recommend 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.

11. The decision

11.1 In accordance with section 188 of the Building Act 2004, I hereby determine that:

- the external envelope complies with Clauses E2 and B2 of the Building Code
- the house complies with the remaining relevant clauses of the Building Code

and accordingly, I reverse the authority's decision to refuse to issue a code compliance certificate.

11.2 I also determine that:

- all the building elements installed in the house complied with Clause B2 on 1 September 2003
- the building consent 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 September 2003 instead of from the time of issue of the code compliance certificate for all the building elements.

Signed for and on behalf of the Chief Executive of the Department of Building and Housing on 28 June 2010.

John Gardiner
Manager Determinations