



Determination 2010/111

Refusal to issue a code compliance certificate for an 8-year-old house and cottage with monolithic cladding at 206 Langdales Road, RD6, West Melton, Christchurch



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 applicant is the owner A Subritsky (“the applicant”) acting through an agent, and the other party is the Selwyn 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 an 8-year-old house and cottage because it was not satisfied that the buildings complied with certain clauses² of the Building Code (First Schedule, Building Regulations 1992). The authority has stated that its concerns are limited to the age of the buildings and their compliance with Clause B2 Durability and Clause E2 External Moisture of the Building Code.

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 code compliance certificates for the buildings for the reasons provided to the applicant. In deciding this, I must consider:

1.3.1 Matter 1: The external envelopes

Whether the external claddings to the buildings (“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 monolithic cladding, the windows, the roof cladding and the flashings), as well as the way the components have been installed and work together. I consider this matter in paragraph 6.

1.3.2 Matter 2: 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 buildings. I consider this matter in paragraph 7.

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

2. The building work

2.1 The building work consists of two single-storey detached buildings situated on a flat rural site. The site is large and exposed, so is assumed to be in a high wind zone for the purposes of NZS 3604⁴. Construction of both buildings is conventional light timber frame, with concrete foundations and floor slabs, monolithic cladding, aluminium windows and profiled metal roofing.

2.2 The dwellings were constructed under two separate building consents (BC 002346 and BC 002347). Although the two building consents were issued at the same time, the house appears to have been constructed first.

2.3 The applicant has provided quotations from the timber supplier which indicates the framing supplied for the buildings was untreated. Given the date of construction of the buildings in 2001 to 2002 and the evidence provided I consider that the external wall framing is untreated.

2.4 The house

2.4.1 The four-bedroom house is an ‘h’ shape, with a 25° pitch hipped roof and an entry canopy that projects to the south at a higher level than the adjacent roofs. The roof has eaves of more than 600mm overall.

2.4.2 Although the intersection of the entry canopy with the main roof includes several complex roof to wall junctions, most of the house is fairly simple in plan and form and is assessed as having a low weathertightness risk (see paragraph 6.2).

³ Under sections 177(1)(b) and 177(2)(d) of the Act

⁴ New Zealand Standard NZS 3604:1999 Timber Framed Buildings

- 2.4.3 A pergola extends from the eaves, where the roof is cut back at the northwest corner. The pergola timbers follow the hipped line of the main roof, forming an infill to the internal corner between the family and dining areas.

2.5 The cottage

- 2.5.1 The cottage is a two-bedroom granny flat linked to a detached garage by a short corridor. The granny flat has two simple 25° pitch gable roofs, with eaves and verge projections of about 500mm. The roof pitch reduces to 15° above 1.5m wide verandahs along the west walls of the living area and the main bedroom.
- 2.5.2 The kitchen includes a corner bay window at the northeast, with the head butted against the eave soffit to the east. On the north face of the window, the gable end wall cladding is built out to align with the window head.
- 2.5.3 Although the drawings show no roof projections to the garage, the photographs indicate that the garage verge projects about 500mm above the north wall. A small timber pergola is attached to the north garage wall above the window and glazed door.

2.6 The wall cladding

- 2.6.1 The cladding system to the walls of both buildings is a form of monolithic cladding system known as EIFS⁵. In this instance, the cladding is a recognised proprietary system consisting of 60mm polystyrene backing sheets fixed directly to the framing over the building wrap, to which a mesh-reinforced plaster system has been applied. The system includes purpose-made flashings to windows, edges and other junctions.
- 2.6.2 The applicant has provided the cladding manufacturer's 'technical data sheet' dated July 1998, which refers to the BRANZ Appraisal Certificate No. 257B, dated September 1998.
- 2.6.3 The cladding installer has provided a producer statement dated 23 January 2008, which identifies the proprietary EIFS system used for the buildings and states that the cladding installation was completed on 13 August 2002. The producer statement also identifies the installer as a 'licensed contractor' for the cladding manufacturer and states that:

...all the work has been carried out in accordance with [the manufacturer's] installation instructions and current BRANZ Appraisal Certificate.

3. Background

- 3.1 The authority issued two building consents (No. BC 002346 for the house and BC 002347 for the cottage) in February 2001 under the Building Act 1991. I have not seen copies of the consents, but I note the drawings of the house and the cottage were stamped by the authority on 12 February 2001.
- 3.2 The authority carried out various inspections of both buildings in 2001 and 2002, including pre-line inspections of the house on 15 June 2001 and pre-line inspections

⁵ Exterior Insulation and Finish System

of the cottage on 14 June 2002. I have seen no records of final inspections, but I note that the record for the inspection of the cottage woodburner on 23 August 2002 included a note 'next inspection dwelling final'.

- 3.3 Although it appears that the buildings were substantially completed by the end of 2002 the applicant did not seek a code compliance certificate until 2009.

3.4 The authority's decision

- 3.4.1 In a letter to the applicant dated 30 July 2009, the authority implied that a final inspection had been carried out in response to the applicant's request, although I have seen no copy of an inspection record. The authority stated that it was unable to issue a code compliance certificate for the building work due:

...to the extended period which has elapsed between the date on which the building consent was granted and the later date on which the practical completion inspection was carried out (being over 6 years).

- 3.4.2 The authority explained how the durability requirements of the Building Code commenced from the time of issue of the code compliance certificate and therefore the authority could not:

...now be satisfied on reasonable grounds that the building work and elements will continue to satisfy the durability provisions of the Building Code for the prescribed period after the Code Compliance Certificate has been issued.

- 3.4.3 The authority also questioned the wording used in the producer statement for the monolithic cladding system (see paragraph 2.6.3), stating:

The Producer Statement for [cladding] which is dated more than 5 years after the work was carried out incorrectly states that the work was carried out in accordance with the current BRANZ Appraisal Certificate. Therefore, the Producer Statement can not be accepted as a means of verification for the plaster work.

- 3.5 I have seen no copies of further correspondence between the parties, although the authority has advised that some concerns about compliance with Clause G12 Water Supplies were subsequently resolved.

- 3.6 The Department initially received an undated application and sought further information from the applicant on 5 July 2010. Some further information was received and the application was accepted on 12 August 2010.

4. The submissions

- 4.1 The applicant made no submission and forwarded copies of:

- the consent drawings
- some of the inspection records
- part of the letter dated 30 July 2009 from the authority
- the cladding installer's producer statement and BRANZ Appraisal Certificate
- a series of photographs of the buildings and other information.

- 4.2 In an email dated 23 August 2010, the Department requested the authority to clarify which building code clauses were in dispute for the building work. In a response also dated 23 August 2010, the authority stated that ‘the CCC was initially refused for issues related with clauses B2, E2 and G12’, although it appeared that ‘satisfactory potable water tests’ had since been obtained and ‘G12 will not now be an issue.’
- 4.3 In a further submission to the Department dated 27 August 2010, the authority confirmed this advice, but added that:
- One of the conditions of the PIM [was] to provide ... a construction statement confirming the [cladding] system used ...
- ...the [BRANZ] appraisal certificate No 257B [1998]... was not current ... when the Producer Statement for the Cladding System was issued. The current ... certificate [was No.] 453 (2005) which was a cavity based exterior plaster cladding system.
- The [authority] believes that the Producer statement ... is invalid and it can not be accepted as a means of verification for the plaster work.
- 4.4 A draft determination was issued to the parties on 11 October 2010. The draft was issued for comment and for the parties to agree a date when the all the building elements in the house complied with Building Code Clause B2 Durability.
- 4.5 The applicant accepted the draft without comment but provided a photograph of the remediation to the kick out flashing referred to in paragraph 5.4.
- 4.6 The authority did not accept the draft for the reasons given in paragraphs 4.3 and 5.6. My response to this is contained in paragraph 5.7.
- 4.7 The parties agreed that compliance with Clause B2 with was achieved on 1 September 2002.

5. The expert’s report

- 5.1 As mentioned in paragraph 1.4, I engaged an independent expert to assist me. The expert is a Registered Building Surveyor. The expert inspected the house on 28 September 2010 and provided a report on 6 October 2010.
- 5.2 The expert noted the following observations in relation to the building code clauses identified as being of concern to the authority:
- The face fixed EIFS system has been installed by a licensed applicator to a good standard and is well maintained on both houses.
 - The cladding has generally been installed in accord with the BRANZ appraisal applicable and E2/AS1 details at the time for low risk buildings.
 - There are no visible signs of cracks or damage as a result of the recent 7.1 magnitude earthquake or subsequent after shocks.
- 5.3 The expert noted that some cladding to ground clearances were minimal but the ground generally sloped away from the building and there were no signs of moisture entry from this source

- 5.4 The expert took 27 invasive moisture tests, of which two were slightly elevated. One was beside the garage door of the cottage where the cladding was touching the ground, and this has since been remedied. The second was in the house just adjacent to the front door, below a kick out flashing. There were no signs of decay or damage to the adjacent framing timber.
- 5.5 Due to this slightly elevated moisture content the expert noted the building would not comply with Clause E2 of the Buildign Code.
- 5.6 The expert's report was sent to the parties on 7 October 2010. The authority responded to the report in a submission to the Department dated 15 October 2010. The submission noted that the shelterbelt refer to in the experts report was located on a neighbouring property. The authority also noted that there was 'no confirmation that the BRANZ certificate 257B (1998) [referred to by the expert] was current at the time of the construction i.e. 2003', and questioned the validity of the producer statement because of the manner in which the BRANZ certificate had been described in the producer statement.
- 5.7 I have been unable to ascertain whether appraisal certificate 257B (1998) was current at the time the EIFS cladding was installed in 2002. I acknowledge that the producer statement dated January 2008 offered by the installer referred to an appraisal certificate that was issued in September 2005. I also note that the statement refers to an EIFS system that was not actually installed. I accept that, when accepting a producer statement, it is important for an authority to confirm that:
- the statement specifically refers to the work installed
 - the work is installed in accordance with the appropriate performance documentation
 - the author of the statement is technical competent.

Matter 1: The external envelopes

6. Weathertightness

- 6.1 The approach to take in determining whether buildings such as these are weathertight and durable is to examine the design of the buildings, the surrounding environment, the design features that are intended to prevent water entering the cladding system and its installation.

6.2 Weathertightness risk

- 6.2.1 The house and cottage have the following environmental and design features which influence their weathertightness risk profile:

Increasing risk

- the buildings are in an undetermined wind zone, assumed to be high
- the monolithic wall cladding is fixed directly to the framing
- a few walls have no eaves or verges to shelter the cladding

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

Decreasing risk

- the buildings are single-storey
- the buildings are reasonably simple, with few complex junctions
- most walls have deep eaves and verge projections to shelter the cladding
- the window heads butt against and are protected by the soffits
- the monolithic cladding is a common proprietary system.

6.2.2 When evaluated using the E2/AS1 risk matrix, these features show that all elevations of both buildings demonstrate a low weathertightness risk rating and the direct-fixed EIFS cladding is an Acceptable Solution.

6.3 The weathertightness performance

6.3.1 Taking into account the experts report, the claddings appear to have been installed in accord with good trade practice.

6.4 Weathertightness conclusion

6.4.1 I consider the expert's report establishes that the current performance of the external envelopes of both buildings is generally adequate except for moisture ingress in one area by the main entrance of the house. Until this fault is investigated and made good I consider the house cannot be said to comply with Clause E2 of the building Code, but the cottage does comply.

6.4.2 In addition, the building envelope is 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 fault on the house is likely to allow the ingress of moisture in the future, the building work does not comply with the durability requirements of Clause B2.

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 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.

7.3 In this case the delay between the completion of the building work in 2001 and 2002 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 2001 and 2002.

7.4 It is not disputed, and I am therefore satisfied, that all the building elements in the house complied with Clause B2 on 1 September 2002. This date has been agreed between the parties, refer paragraph 4.7.

7.5 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.

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

- (a) the authority has the power to grant an appropriate modification of Clause B2 in respect of all the building elements.
- (b) 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 2001 and 2002.

7.7 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.

8. What is to be done now?

8.1 The owner has advised that the remedial work to the kick out flashing has been completed. Once that work has been verified by the authority as code compliant, it should then issue a code compliance certificate in respect of the building consent BC 002346 as amended in paragraph 9.2.

9. The decision

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

- The house does not with Clause E2 and Clause B2 (insofar as it relates to E2) of the Building Code and accordingly I confirm the authority's decision to refuse to issue a code compliance certificate in respect of building consent BC 002346.
- The cottage complies with the Building Code and accordingly I reverse the authority's decision to refuse to issue a code compliance certificate in respect of the building consent BC 002347.

9.2 I also determine that:

- (a) all the building elements installed in the house and cottage complied with Clause B2 on 1 September 2002
- (b) building consents BC 002347 and BC 002346 and are 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 2002 instead of from the time of issue of the code compliance certificate for all the building elements as described in Determination 2010/111.

Signed for and on behalf of the Chief Executive of the Department of Building and Housing on 15 November 2010.

John Gardiner
Manager Determinations