



## Determination 2009/52

### Refusal to issue a code compliance certificate for a five year old house completed under the supervision of a building certifier at 563 Belk Road, 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 applicants are the owners, Mr and Mrs C and R Prujean and Mr G Muir (“the applicants”), acting through an agent, 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. I have included Chartwell Homes Limited (“the builder”) as a person with an interest in the matter.
- 1.2 The matter for determination is whether the authority’s decision to refuse to issue a code compliance certificate for a five-year a house is correct. The authority has instead issued a certificate of acceptance that accepts the building’s compliance, in full or in part, with certain clauses of the Building Code (refer paragraph 3.8). The refusal to issue a code compliance certificate arose because the authority was not satisfied that the building work complies with certain clauses of the Building Code<sup>2</sup>

<sup>1</sup> The Building Act 2004 is available from the Department’s website at [www.dbh.govt.nz](http://www.dbh.govt.nz).

<sup>2</sup> The Building Code is available from the Department’s website at [www.dbh.govt.nz](http://www.dbh.govt.nz).

(First Schedule, Building Regulations 1992), as the building work had been undertaken under the supervision of Bay Building Certifiers Limited (“the building certifier”) which was duly registered as a building certifier under the former Building Act 1991, but ceased to operate as a building certifier before it had issued a code compliance certificate for the building work.

1.3 I consider that the matters for determination, in terms of sections 177(a) and 188 of the Act are:

1.3.1 **Matter 1: The external envelope**

Whether the external envelope of the house complies with Clauses B2 Durability and E2 External Moisture of the Building Code. The “external envelope” includes the cladding, its configuration and components, junctions with other building elements, formed openings for windows etc, penetrations, decks, parapets, and the proximity of building elements to the ground.

1.3.2 **Matter 2: The remaining Building Code clauses**

Whether the remaining building elements comply with the relevant clauses of the Building Code.

1.3.3 **Matter 3: The durability considerations**

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

1.4 In order to determine whether a building is code-compliant, I must address the following questions.

- (a) Is there sufficient evidence to establish that the building work as a whole complies with the Building Code? If so, a code compliance certificate can be issued.
- (b) 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? If so, can the appropriate certificate can be issued in due course.

I address these questions in paragraph 5.

1.5 In making my decision, I have considered the submissions of the parties, the report of the expert commissioned by the Department to advise on this dispute (“the expert”), and other evidence in this matter. I have evaluated this information using a framework that I describe in paragraph 7.1.

## 2. The building

2.1 The building is a fairly simple single-storey detached house situated on a flat country lifestyle block that is in a high wind zone in terms of NZS 3604<sup>3</sup>. The house is of conventional light timber frame construction, with a concrete slab and perimeter concrete footings. The house has a ground floor deck, which was completed as a part of a later building consent.

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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> New Zealand Standard NZS 3604:1999 Timber Framed Buildings

- 2.2 The house is clad in clay brick veneer. The top of the gable ends are EIFS<sup>4</sup> monolithic cladding of 40mm thick polystyrene, and the opening between the brick above the windows and doors is clad with textured and painted fibre-cement panels. The windows and doors have aluminium joinery. The 25° pitch roof has a hip and gable configuration with a generally 600mm soffit overhang. The roof is clad in concrete tiles.
- 2.3 The expert was unable to inspect any of the concealed timber framing, however the specification lists the timber as Group Pine No.1 Framing H1 for the framing and Group Pine No.1 Framing H3 for the deck framing and flooring. Given the date of construction and the other evidence in this matter, I consider that the external framing for this house is likely to be treated to a level that will provide resistance to fungal decay if the framing gets wet and is unable to dry out.

### 3. Background

- 3.1 The authority issued a building consent (No. 70538) on 10 March 2004, under the Building Act 1991. The building consent was supported by a building certificate issued by the building certifier.
- 3.2 A building company (“the building company”), who were Registered Master Builders were contracted to build the house.
- 3.3 The building certifier carried out the following inspections during construction:

Inspection	Date and status
Footing	31 March 2004 - passed
Block fill	4 April 2004 - passed
Underfloor	14 April 2004 - passed
Slab	14 April 2004 - passed
Plybracing	15 June 2004 - passed
Preline plumbing	24 June 2004 - passed
Preline building	24 June 2004 - failed and 1 July 2004 - passed
Prestopping	30 July 2004 - passed
Drainage	25 August 2004 - passed and 13 October 2004 - passed
Final/building	8 November 2004 - passed
Final/plumbing	8 November 2004 - failed (drainage plan needed revising)

- 3.4 The building certifier ceased to operate as a building certifier on 30 June 2005 without having issued a code compliance certificate.

<sup>4</sup> EIFS - External Insulation and Finish System

3.5 In a letter to the applicant dated 1 December 2006, the authority explained that an assessment was carried out on 28 November 2006 and the following non-complying items were found:

1. Raise the height of the gully trap.
2. Install ventilation slots under the brick sills as discussed.
3. Provide producer statements from:
  - a. Installer of the insulated cladding
  - b. The tiler for waterproofing of the wet areas
  - c. Gasfitter
  - d. Electrical contractor

3.6 The authority also explained:

It should be noted that on completion of the remedial work [the authority] will not issue a Code Compliance Certificate for the building. That being the case, Section 91 of the Building Act 2004 requires that you apply for a Certificate of Acceptance.

If [the authority] then decides it is able to issue a Certificate of Acceptance it will only cover those elements of the building that can be readily inspected and compliance with the Building Code determined.

3.7 The building company applied for a certificate of acceptance for the building work and in a letter dated 11 December 2006, enclosing the required producer statements, advised that the outstanding works listed in the authority's 1 December letter had been completed.

3.8 The authority issued a certificate of acceptance dated 15 December 2006 with an acceptance of compliance statement as follows:

The [authority]... is satisfied, to the best of its knowledge and belief and on reasonable grounds, that, insofar as it can ascertain, the building work described below complies with the Building Code:

Sealing of linings and walls in wet areas, ceiling insulation, access and smoke alarm, natural light, ventilation, height of floor above ground levels, spouting and downpipes

The certificate was qualified as follows:

This certificate does not include the building structure or the building envelope except that we are of the opinion that the ventilation and drainage of the brick veneer cladding complies with the requirements of the Building Code.

3.9 The applicant made an application for a determination, which was received by the Department on 10 February 2009.

## **4. The submissions**

4.1 The applicant forwarded copies of

- the building consent and consent documentation
- the building certifier's inspection summary
- the authority's letter dated 1 December 2006 and the certificate of acceptance dated 15 December 2006, and the application and related documentation
- various producer statements, contracts, and related documentation.

- 4.2 A copy of the application was provided to the authority, who made no submission in response.
- 4.3 A draft determination was issued to the parties on 30 April 2009. The applicants had no comment to make on the draft. The builder made no response to the draft.
- 4.4 The authority responded to the draft in an email to the Department dated 28 May 2009. The authority said it accepted the draft but sought to have the determination include a modification of the durability periods under Building Code Clause B2 Durability given the time since the work's completion.
- 4.5 In an email to the Department dated 18 June 2009 from the applicant and 25 June 2009 from the authority, both parties agreed that compliance with Clause B2 was achieved on 8 November 2004.

## **5. Grounds for the establishment of code compliance**

- 5.1 In order for me to form a view as to code compliance, I need to establish what evidence is available and what can be obtained considering that the building work is completed and some of the elements are not able to be cost-effectively inspected.
- 5.2 In this case the evidence supplied by the applicant includes:
- the building certifier's inspection summary (refer paragraph 3.3)
  - the certificate of acceptance (refer paragraph 3.8)
  - the producer statements, other certificates and documentation.
- 5.3 The authority believes that any decision it makes with respect to compliance of the house is limited by what items it is able to inspect. I therefore need to decide if I can rely on the inspections that were undertaken by the building certifier, particularly in regard to inaccessible building components.
- 5.4 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 and can be used to verify that the building certifier's inspections were properly conducted.
- 5.5 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 records of inspections carried out by the building certifier, which indicate satisfactory inspections of the inaccessible components
  - the certificate of acceptance, which indicates compliance with certain code clauses, and the code compliance of certain elements of the building
  - the expert's report as outlined in paragraph 6.

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

- 6.1 As mentioned in paragraph 1.5, I engaged an independent expert to provide an assessment of the condition of those building elements subject to the determination. The expert is a member of the New Zealand Institute of Building Surveyors. The expert inspected the house on 9 March 2009 and furnished a report that was completed on 27 March 2009.

- 6.2 The expert observed that the overall standard of workmanship was very good, the ground clearances were adequate, the roof and general flashing work was tidy and effective, and the claddings were in excellent condition and well fixed and aligned and installed in accordance with good trade practice. The expert noted the wall cladding is well protected by eaves.
- 6.3 The expert inspected the interior of the house, taking non-invasive moisture readings, and no evidence of moisture was observed.
- 6.4 Commenting specifically on the wall cladding, the expert noted that:
- the brick veneer is in sound condition, there is no evidence of movement, and the walls do not exceed a length which require control joints
  - the area of EIFS cladding to the gable is well aligned, in excellent condition and does not exceed the plane area size that require control joints
  - the cladding is continuous and painted behind spouting and obstructions
  - fibre-cement cladding is extended over the window head flange by about 20mm, which is an acceptable practice as an alternative to fitting aluminium flashings, and the window heads are protected by eaves.
- 6.5 The expert also assessed compliance with other relevant building code clauses relevant to this house, and made the following comments:

<b>Code Clause</b>	<b>Observations</b>
B1	There is no evidence of structural stress or excessive movement and the building certifier passed the footing inspection
C1	There is a gas fitting certificate
E1	The dwelling is elevated to allow natural run off, there are externally fitted gutters, and down-pipes disposing into soak holes
E3	Functional and performance requirements of Clause E3 have been met
F2	Bathroom glazing complies with NZS 4223: Part 3: 1999, however the expert could not verify that the glazing to the dining room windows is safety glass
G1, G2, G3	Functional requirements of Clauses G2.2 and G3.2.1 have been met and all facilities are in good working order
G4	Functional requirements of Clause G4.2 have been met
G12, G13	Household water supply shared with several neighbouring properties and foul water is conveyed to gully traps and into a Council approved septic tank system
H1	Blanket type insulation is installed in roof space and the building certifier passed the preline inspection on 1 July 2004 so it is reasonable to assume walls meet insulation requirements.

- 6.6 A copy of the expert's report was provided to the parties on 2 April 2009.

- 6.7 The applicant sent a copy of the producer statement dated 20 April 2009 to the Department confirming that the glass installed in the dining room windows is safety glass and meets the requirements of NZS 4223:1999 part 3.

## **7. Evaluation for code compliance**

### **7.1 Evaluation framework**

- 7.1.1 In evaluating the design of a building and its construction, it is useful to make some comparisons with the relevant Acceptable Solutions<sup>5</sup>, which will assist in determining whether the features of this house are code compliant. However, in making this comparison, the following general observations are valid:

- Some Acceptable Solutions are written conservatively to cover the worst case, so that they may be modified in less extreme cases and the resulting alternative solution will still comply with the Building Code.
- Usually, when there is non-compliance with one provision of an Acceptable Solution, it will be necessary to add one or more other provisions to compensate for that in order to comply with the Building Code.

### **7.2 Evaluation of other code requirements**

- 7.2.1 Taking account of the expert's assessment of visible components of the building, together with the inspection records, the certificate of acceptance, and other documentation, I consider it is reasonable to form a view as to whether the building is likely to comply with the provisions of the remaining relevant code requirements.

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

## **8. Discussion**

- 8.1 The approach in determining whether building work is weathertight and durable and is likely to remain so, is to apply the principles of weathertightness. This involves the examination of the design of the building, the surrounding environment, the design features that are intended to prevent the penetration of water, the cladding system, its installation, and the moisture tolerance of the external framing. The Department and its antecedent, the Building Industry Authority, have also described weathertightness risk factors in previous determinations<sup>6</sup> (for example, Determination 2004/1) relating to cladding and these factors are also used in the evaluation process.

- 8.2 The consequences of a building demonstrating a high weathertightness risk is that building solutions that comply with the Building Code will need to be more robust. Conversely, where there is a low weathertightness risk, the solutions may be less robust. In any event, there is a need for both the design of the cladding system and its installation to be carefully carried out.

### **Weathertightness risk**

- 8.3 In relation to these characteristics, I find that the house:

#### **Increasing risk**

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<sup>5</sup> An Acceptable Solution is a prescriptive design solution approved by the Department that provides one way (but not the only way) of complying with the Building Code. The Acceptable Solutions are available from The Department's Website at [www.dbh.govt.nz](http://www.dbh.govt.nz).

<sup>6</sup> Copies of all determinations issued by the Department can be obtained from the Department's website.

- is built in a high wind zone

#### **Decreasing risk**

- is a single-storey building with a relatively simple building envelope
- has generally eaves of 600mm
- has a simple hip and gable roof with two roof to wall junctions
- has a timber deck at ground floor level.

8.4 The house has been evaluated using the E2/AS1 risk matrix. The risk matrix allows the summing of a range of design and location factors applying to a specific building design. The resulting level of risk can range from “low” to “very high”. The risk level is applied to determine what cladding can be used on a building in order to comply with E2/AS1. Higher levels of risk will require more rigorous weatherproof detailing; for example, a high risk level is likely to require a particular type of cladding to be installed over a drained cavity.

8.5 When evaluated using the E2/AS1 risk matrix, the weathertightness features outlined in paragraph 8.3 show the addition demonstrates a low weathertightness risk rating. The brick veneer cladding system has been constructed with a cavity and I note that, if the details shown in E2/AS1 were adopted to show code compliance, the fibre cement and polystyrene to the gables would not require a cavity system.

#### **Weathertightness performance**

8.6 The building elements to the external envelope appear to have been installed to good trade practice and a good standard of workmanship, and I accept the expert’s observations in paragraphs 6.2 to 6.4.

#### **Weathertightness conclusion**

8.7 I consider that the expert’s report establishes that the current performance of the claddings is adequate because they are currently preventing water penetrating into the building. Consequently, I am satisfied that the house complies with Clause E2 of the Building Code.

8.8 In addition, the building work 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. Having regard to paragraph 6 and 8.7, I consider the house will comply with the durability requirements of Clause B2.

8.9 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).



## **Matter 2: The other code clauses**

### **9. Discussion**

9.1 I consider that the expert's inspections and comments as outlined in paragraph 6.5 establishes that the building work complies with Clauses B1, C1, E1, E3, F2 (in part), G1, G2, G3, G4, G12, G13, and H1 of the Building Code. I consider that the producer statement dated 20 April 2009 provides sufficient evidence that safety glass has been installed to meet the requirements of Clause F2. I therefore consider that the building complies with the Building Code.

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

10.1 Having found that the house is in compliance with the Building Code I must now determine which certificate is the appropriate one to be issued.

10.2 Section 437 of the Act provides for the issue of a certificate of acceptance where a building certifier is unable or refuses to issue either a building certificate under section 56 of the former Act, or a code compliance certificate under section 95 of the current Act. In such a situation, a territorial authority may, on application, issue a certificate of acceptance.

10.3 In this situation, where I have reasonable grounds to conclude that the consented building work is in compliance with the Building Code, I am of the view that a code compliance certificate is the appropriate certificate to be issued.

10.4 I note that the house is a single storey structure with low risk features. I consider the authority was able to make its own decision as to code compliance given the inspection records available to it which were able to be corroborated by its own inspections.

## **Matter 3: The durability considerations**

### **11. Discussion**

11.1 There are concerns about the durability, and hence the compliance with the building code, of certain elements of the house taking into consideration the substantial completion of the building work in 2004.

11.2 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).

11.3 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.

- 11.4 The delay since the substantial completion of the house raises the issue of when all the elements of the house complied with Clause B2, given that various elements of the building are now well through 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.
- 11.5 It is not disputed and therefore I am satisfied, that all the building elements complied with Clause B2 on 8 November 2004 (refer to paragraph 4.5).
- 11.6 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.
- 11.7 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 the building elements
  - (b) it is reasonable to grant such a modification, with appropriate notification, because in practical terms the building is no different from what it would have been if a code compliance certificate for the house had been issued when the building work was substantially completed in 2004.
- 11.8 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.

## **12. The decision**

- 12.1 In accordance with section 188 of the Building Act 2004, I hereby determine that the building work complies with the Building Code and I reverse the authority's decision to refuse to issue a code compliance certificate.
- 12.2 I also determine that:
- all the building elements installed in the building complied with Clause B2 on 8 November 2004
  - 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 8 November 2004 instead of from the time of issue of the code compliance certificate for all of the building elements as described in Determination 2009/52.
  - following the modification set out in (b) above, the authority shall issue the code compliance certificate
- 12.3 Following the modification to the consent, the authority shall, on issue of the code compliance certificate, withdraw the certificate of acceptance issued on 15 December 2006.

Signed for and on behalf of the Chief Executive of the Department of Building and Housing  
on 27 July 2009.

John Gardiner  
**Manager Determinations**