

# **Determination 2011/048**

# Regarding the code compliance of a 16-year-old house at 104 Woodman Drive, Tawa, Wellington



#### 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 Petelo ("the applicants"), and the other party is the Wellington City Council ("the authority") carrying out its duties as a territorial authority or building consent authority.
- 1.2 The determination arises from the applicants' wish to obtain a code compliance certificate for the house. It was the applicants' understanding that the authority would refuse to issue a code compliance certificate if such an application was made. The authority has not formally been asked to consider the code compliance of the house at this time, although it appears it was asked to consider this in 1995. I have

<sup>&</sup>lt;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 or by contacting the Department on 0800 242 243.

therefore taken the matter to be determined<sup>2</sup> as whether the house complies with Building Code. In deciding this, I must consider:

#### 1.2.1 Matter 1: The code compliance of the house

Whether the house complies with the relevant clauses of the Building Code. (I consider this matter in paragraph 5.)

#### 1.2.2 Matter 2: The durability considerations

Whether the elements that make up the house comply with Building Code Clause B2 Durability, taking into account the age of the house. (I consider this matter in paragraph 6.)

1.3 In making my decision I have considered the submissions of the parties and the other evidence in this matter.

# 2. The building work

- 2.1 The building work consists of a single storey house which is situated on a sloping site in a high wind zone for the purposes of NZS 3604<sup>3</sup>. The house was built on two levels with approximately 550mm between the levels. Construction is generally conventional light timber frame with a concrete slab. The master bedroom and ensuite only are founded on timber piles and subfloor framing.
- 2.2 The house has aluminium window and door joinery, and metal-tiled roofing. There are open timber-slatted decks to northwest and northeast. The cladding is predominantly rusticated cedar weatherboards with some and brick veneer feature panels.
- 2.3 The house is moderately complex in plan with some moderately complex roof junctions. The house has a low to moderate weathertightness risk rating.
- 2.4 Given the date of construction of the house from 1994 to 1995, I consider the external wall framing is likely to be boric treated to a level sufficient to provide resistance to fungal decay.

# 3. Background

- 3.1 The authority issued a building consent (No. 5840) on 12 July 1994 under the Building Act 1991, with construction taking place during 1994 to 1995 by a franchised building company
- 3.2 The authority carried out various inspections during construction, including
  - a 'pre-lining moisture check' on 28 August 1994, which passed with the record noting 'bracing ok'
  - pre-line inspection and pressure test on 28 September 1994, which passed
  - sewer and stormwater test on 2 November 1994, which passed.
- An "Advice of completion of building work", dated 29 November 1995, was lodged with the authority, however it appears that no final inspection was undertaken until November 1998. The authority undertook inspections on 11 and 16 November 1998 and the following outstanding items were noted:

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<sup>&</sup>lt;sup>2</sup> Under section 177(1)(a) of the Act

<sup>&</sup>lt;sup>3</sup> New Zealand Standard NZS 3604:1999 Timber Framed Buildings

Stringers to deck to be bolted. Joist hangers to deck and wind ties preventing wind uplift to be installed.

Tempering valve

Fan in ensuite to atmosphere

Clips on waste under house

Tighten strapping on cylinder air admittance valves on vanities

The inspection record also notes 'check inspection history'.

- 3.4 The applicants purchased the property in 2001 and in 2008 sought to sell the house and realised that a final inspection had not been completed and that the house did not have a code compliance certificate. The applicants then engaged a building surveyor to check the items that had been noted in the final inspection as requiring completion.
- 3.5 The building surveyor undertook a site visit on 28 March 2008 and in a report dated March 2008 confirmed that 'the plumbing/drainage items and the strapping to the beam/joist connects to the deck have been fitted to complete the items of work identified in the [authority's] site report'. The applicants provided a copy of the surveyor's report to the authority but did not call for a final inspection.
- 3.6 The authority wrote to the applicants on 6 May 2009 in response to a phone call from the applicant, noting that:

[The authority] needs to be satisfied that the durability requirements of the Building Code will continue to be met. This includes, but is not limited to, consideration of profiled roof claddings, roof and deck membranes, exterior wall claddings, external joinery elements, floor coverings in wet areas, waterproof membranes under shower linings and maintenance requirements for the products used.

It is possible that due to the age of the building work and the length of time that has passed since the work was completed, the [authority] may not be able to be satisfied that the durability requirements of the Building Code can be met. This means that a Code Compliance Certificate cannot be issued. Whether the building work at your property falls within this category can only be determined after an inspection by the [authority].

- 3.7 The applicant contacted the authority by email on 1 March 2011 enquiring about the procedure for a building inspection to be undertaken. I have not seen a response to that enquiry.
- 3.8 The Department received an application for determination on 14 March 2011.

#### 4. The submissions

- 4.1 The applicants provided a covering letter providing background to the matter. The applicant and the authority provided copies of:
  - the application for building consent, the issued consent, the plans, specification, and the engineering calculations
  - records of four site inspections dated 1994
  - the as-laid drainage plan, date-stamped 16 November 1994
  - the advice of completion of building work, dated 29 November 1995
  - the building surveyor's report dated March 2008

• the authority's inspection record dated 17 November 1998, and the inspection summary

- the correspondence from the authority to the applicants dated 6 May 2009 (refer paragraph 3.6).
- 4.2 The Department sought confirmation from the authority on 12 April 2011 of its view of the matter. The authority advised that it would follow its established procedure with respect to consents of this age.
- 4.3 A draft determination was issued to the parties on 5 May 2011. The draft was issued for comment and for the parties to agree a date when the building work complied with Clause B2 Durability.
- 4.4 Both parties accept the draft without comment and agreed on a B2 completion date of 1 March 1995, being compromise between the date nominated by the authority (1 September 1994) and the date the request was made for the code compliance certificate (29 November 1995).

## 5. Matter 1: The code compliance of the house

5.1 Officers of the Department visited the house to consider its compliance with the Building Code on 5 and 13 April 2011.

#### 5.2 General

- 5.2.1 The house was found to be in good condition and generally well maintained.
- 5.2.2 The house had been built in accordance with the consent documents, apart from a small lean-to roof to the northeast deck, and a covered porch added to the side door to the garage. A decorative wall element above the garage door had not been installed.

#### 5.3 Observations

5.3.1 The officers of the Department noted the following observations:

#### **B1 Structure**

• No defects were observed. The building appeared to be sound with no evidence of movement or distress.

#### **B2** Durability

• The building was in sound condition apart from some elements requiring routine maintenance.

#### C1 Outbreak of fire and G9 Electricity

• Some ceiling insulation partially covers the downlights.

#### E1 Surface water

No defects were observed.

#### **E2 External moisture**

 There was evidence of water staining to soffits, however the gutters above the soffits were found to be draining freely and the water-staining is attributed to earlier blockages. No other evidence of water ingress or water damage was observed.

• Soil in the garden under corner window to the family room was in contact with the weatherboards but in a location sheltered from the weather.

- Some paved ground levels adjacent the garage and the kitchen are less that that prescribed in E2/AS1 that was in force at the time of consent. However, there was no evidence to demonstrate that the levels had caused non-compliance with Clause E2.
- Some building paper under the metal roof tiles was ripped.
- The cedar weatherboards were generally well installed. There was evidence that horizontal gaps had opened between adjacent boards, but only on the northwest elevation of the master bedroom and ensuite: the gaps had been sealed.
- Aluminium head flashings were installed to the external joinery, with plugs installed to the rusticated weatherboards. The window jambs were sealed to the weatherboards. The aluminium head flashings were unpainted.
- Two minor defects were observed to the cedar weatherboards; a hole (approximately 15mm diameter) adjacent the side door to the garage and the lack of a weathertight seal to the vent pipe outside the kitchen.
- Some building elements were nailed to the weatherboards.
- Lack of weathertight seals to the electrical meter box installed in the brick veneer.

#### E3 Internal moisture

• No defects were observed. There was also no evidence of mustiness or mould to walls of ceilings.

#### F2 Hazardous building materials

- Glazing to the two shower enclosures was compliant with safety glass in one and plastic in the other.
- Glazing to the full-height glazed doors and windows facing or opening onto the decks were not marked as safety glass. The glazed screens to the porch to the garage and the small deck to the north east were also not marked as safety glass. The compliance of the glazing will need to be assessed against the requirements of NZS 4223: Part 3<sup>4</sup>.

#### F4 Safety from falling

• No defects were observed. The barriers to the decks were 1000m high with gaps to the balustrade limited to 100mm.

#### F7 Warning systems

• There was only one smoke detector (linked to the alarm system) installed in the house. Although this was not a requirement of the Building Code at the time the building consent for the work was issued and cannot now be required, I strongly suggest that detectors be installed in accordance with F7/AS1.

#### G1 Personal Hygiene, G2 Laundering, G3 Food prep

• Adequate facilities were provided.

<sup>&</sup>lt;sup>4</sup> New Zealand Standard NZS 4223:Part 3:1999 - Code of practice for glazing in buildings - Human impact safety requirements

#### **G4 Ventilation**

- Natural ventilation was provided to all rooms.
- The extract fan to the kitchen was vented to the outside, however, the extract fan to the ensuite was vented to the ceiling space and not vented to the outside.

#### G5 Interior environment, G7 Natural light, G8 Artificial light

No defects were observed.

#### **G9 Electricity**

(Refer C1 above)

#### **G12 Water supplies**

• No defects were observed. A tempering valve had been fitted to the hot water cylinder.

#### G13 Foul water

- All drains appeared to be running freely; as-laid drains plans had been provided.
- The gully traps had sufficient freeboard to prevent the ingress of surface water. However, the surround adjacent the Kitchen is cracked and should be repaired to avoid the ingress of surface water.

#### H1 Energy efficiency

- Insulation was observed to the external walls at a number of locations.
- Some foil to the subfloor are under the Ensuite shower was torn or missing.
- Some ceiling insulation was missing or of insufficient depth

#### 5.4 Conclusion

- 5.4.1 Taking into account the observations above I conclude that the house does not comply with the Building Code in respect of the following (relevant Code clauses are shown in brackets):
  - ground levels to the garden adjacent the cedar weatherboards (Clauses B2 and E2)
  - the two defects to the weatherboards and the weathertightness of the electrical meter box to the brick veneer (Clause E2)
  - ripped building paper to the roof (Clause E2)
  - confirmation of the safety of the glazing (Clause F2)
  - ventilation of the ensuite extract fan to the exterior (Clause G4)
  - cracked surround to kitchen gully trap (Clause G13)
  - insulation partially covering ceiling downlights (Clauses C1 and G9)
  - missing, or insufficient, floor and ceiling insulation (Clause H1).
- 5.4.2 The house is now 16 years old and in my view has already met the durability requirements of the Building Code with respect to the external envelope. Consequently, I consider any remaining defects to the envelope, not included in paragraph 5.4.1, to be matters of normal maintenance.

### 6. Matter 2: The durability considerations

6.1 The authority 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 1995.

- 6.2 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).
- 6.3 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.
- In this case the delay between the completion of the building work in 1995 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 1995.
- 6.5 It is not disputed, and I am therefore satisfied that all the building elements installed in the house, apart from the items to be rectified, complied with clause B2 on 1 March 1995. This date has been agreed between the parties, refer paragraph 4.4.
- 6.6 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.
- 6.7 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 all the building elements if requested by an owner
  - (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 1995.
- 6.8 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.

#### 7. What is to be done now?

7.1 The authority should issue a notice to fix that requires the owners to bring the house into compliance with the Building Code, identifying the defects listed in paragraph 5.4.1 and referring to any further defects that might be discovered in the course of investigation and rectification, 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 compliance with the Building Code. That is a matter for the owners to propose and for the authority to accept or reject.

- 7.2 I suggest that the parties adopt the following process to meet the requirements of paragraph 7.1. Initially, the authority should issue the notice to fix. The applicants should then respond to this in the form of a detailed proposal for the remedial work that should be submitted to the authority for approval. Any outstanding items of disagreement can be referred to the Chief Executive for a further binding determination.
- 7.3 The applicants should also provide the necessary information and evidence of compliance to the authority so that the authority can satisfy itself as to the compliance of the relevant glazing with Clause F2 (refer paragraph 5.3.1).
- 7.4 Once the outstanding matters have been rectified to the authority's satisfaction, the authority may issue a code compliance certificate in respect of the building consent amended as described in paragraph 6.

#### 8. The decision

- 8.1 In accordance with section 188 of the Building Act 2004, I hereby determine that:
  - there is insufficient evidence to establish on reasonable grounds that the glazing to the full-height glazed doors and windows facing or opening onto the decks, and the glazed screens to the porch and small deck, comply with Clause F2 of the Building Code
  - the house does not comply with Building Code Clauses B2 Durability, C1 Outbreak of fire, E2 External moisture, G4 Ventilation, G9 Electricity, G13 Foul water, and H1 Energy efficiency.

#### 8.2 I also determine that:

- (a) all the building elements installed in the house complied with Clause B2 on 1 March 1995.
- (b) 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 March 1995 instead of from the time of issue of the code compliance certificate for all the building elements, with the exception of those items that are to be rectified as set out in Determination 2011/048.

Signed for and on behalf of the Chief Executive of the Department of Building and Housing on 23 May 2011.

John Gardiner

**Manager Determinations**