



Determination 2011/098

Refusal to issue a code compliance certificate for an 8-year old house at 100 Koutunui Road, KatiKati (to be read in conjunction with Determination 2009/54)

Applicant: J and T Tubman (the owners)
The authority: Western Bay of Plenty District Council

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.

1.2 The reason for the application

1.2.1 I have previously described certain building matters regarding this house in Determination 2009/54 (“the first determination”). This second determination arises because the authority has continued to refuse to issue a code compliance certificate for the house because it is not satisfied that:

- the repairs to certain windows comply with Clauses B2 and E2 of the Building Code², due to the lack of drainage gaps
- the new membrane to the upper deck (“the deck membrane”) complies with Clauses B2 and E2 of the Building Code, due to the lack of an inspection prior to installation of the membrane and the lack of a producer statement.

1.3 The matters to be determined³ are therefore:

Matter 1: The repairs to the windows

Whether the windows installed to walls with monolithic cladding fixed directly to the framing comply with Clauses B2 and E2 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, references to the code are to the Building Code and references to clauses are to clauses of the Building Code.

³ Under section 177(1)(a) of the Act

Matter 2: The deck membrane

Whether the recently installed deck membrane requires a producer statement to support its compliance with Clauses B2 and E2 of the Building Code.

1.4 Matters outside this determination

1.4.1 The first determination issued on 29 July 2009 described certain building matters regarding the cladding system to this house. As a result of the first determination, the authority issued a notice to fix, which included those matters.

1.4.2 This determination is limited to the matters outlined in paragraph 1.3, as the authority has confirmed (see paragraph 3.7) that the following items are not disputed:

- the other requirements within the notice to fix dated 7 September 2009
- the joinery installed within any walls incorporating a drained cavity
- the requirement for a control joint to one wall.

1.5 In making my decision, I have considered the applicant's submission, the addendum report of the expert commissioned by the Department to advise on this dispute ("the expert"), and the other evidence in this matter.

2. The building work

2.1 The building is a detached two-storey house on a flat site, with conventional light timber framing, a concrete slab and foundations, aluminium windows, monolithic and brick veneer claddings, and profiled metal hipped roofs. The house includes an enclosed deck area, with clad balustrades, set within the lower sloping roofs.

2.2 The windows

2.2.1 The subject windows are installed within the monolithic cladding to three elevations, which consists of fibre-cement sheeting direct-fixed through the building wrap to the framing, and finished with a sprayed texture painted finish.

2.2.2 The remedial work appears to have included removing windows, then installing sill flashings and jamb seals prior to reinstalling the existing joinery. All window and door heads are sheltered beneath roof overhangs deeper than 600mm.

2.3 The deck membrane

2.3.1 The subject membrane is a single-ply sheet polyester-reinforced vinyl waterproof membrane, with a self-coloured finish and heat-welded joints. The membrane is the subject of an appraisal certificate ("the appraisal") issued by BRANZ⁴.

⁴ BRANZ Appraisal Certificate No.411 (2005)

3. Background

- 3.1 The authority issued a building consent (No. 68195) for the house on 19 November 2002, based on a building certificate issued by a building certifier. Final inspections were completed by the building certifier on 22 September 2005.
- 3.2 Following an assessment of the house on 22 September 2006, the authority refused to issue a code compliance certificate for the house and the owners applied for the first determination.

3.3 The first determination

- 3.3.1 The first determination found that the house did not comply with certain clauses of the Building Code; and accordingly confirmed the authority's refusal to issue a code compliance certificate after identifying certain defects, which did not include defects relating to the original deck membrane.
- 3.3.2 Based on the first determination, the authority issued a notice to fix (No. 527) on 7 September 2009, which also did not refer to the original deck membrane. The repair work was carried out under an amendment to the original building consent.
- 3.4 While undertaking remedial work required to the deck balustrades and associated junctions, it appears that the original butyl deck membrane was replaced with a vinyl waterproof membrane (see paragraph 5.4), without the authority inspecting the substrate prior to the membrane's installation.
- 3.5 The authority carried out a final inspection of the house on 4 May 2011 and recorded the following in regard to the subject matters:
- ...insufficient or no drainage gap has been achieved on all windows and one door with sill traps. The approved sill detail requires a 5mm drainage gap.
- Provide a Producer Statement from an approved Author for the upper level butynol⁵ [sic] deck membrane.
- 3.6 The Department received an application for a determination on 15 August 2011 and sought clarification from the authority on its reasons for refusing to issue a code compliance certificate for the house.
- 3.7 The authority responded on 25 August 2011; noting that, on advice from the cladding manufacturer, it was satisfied that a control joint was not required and also that joinery in the wall with a cavity is 'not an issue'. The authority stated that the 'outstanding issues' were the windows re-installed in the direct-fixed textured cladding and the deck membrane, noting:
- The window openings in question are an issue because the cladding is direct-fixed and there is no 5mm gap between the window flange and the [sill] flashing.
- [the requirement for a producer statement for the deck membrane] is that no inspection had been requested prior to it being applied, and a PS would assist in establishing that there are reasonable grounds to be satisfied that building code compliance has been achieved.

⁵ This was an error, as the original butynol membrane was replaced with the vinyl membrane.

4. The submissions

- 4.1 The applicant did not make a written submission with the application.
- 4.2 The authority clarified its position (see paragraph 3.7) and provided copies of:
- the notice to fix dated 7 September 2009
 - the final inspection record.
- 4.3 A draft determination was issued to the parties for comment on 19 October 2011. Both parties accepted the draft without comment.

5. The expert's report

- 5.1 As discussed 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, and had undertaken the earlier assessment of the cladding, which provided evidence for the preparation of the first determination.
- 5.2 The expert revisited the house to inspect the subject windows and deck membrane on 28 September 2011, providing a report on 2 October 2011. The expert inspected the windows and deck, and commented specifically on those areas.

5.3 The subject windows

- 5.3.1 In regard to the subject windows, the expert noted the following:
- The inclusion of a 5mm gap would allow any moisture reaching the sill flashings to easily escape to the outside. However, probing the gaps with a blade has confirmed that a gap of 2.5mm to 3mm is provided.
 - The sill flashings slope by about 5° towards the outside and have 10mm upstands to the ends, so the flashings are able to direct any moisture to the outside and prevent moisture migrating past the sill ends.
 - Invasive moisture readings between 9% and 15% were recorded under sill/jamb flashings, indicating that moisture is not entering the framing.
- 5.3.2 The expert concluded that the windows were performing satisfactorily despite the reduced drainage gaps and, providing gaps are maintained, will continue to do so.

5.4 The deck membrane

- 5.4.1 The expert noted that the deck is small, being only 5 square metres, and has 'recently been completely rebuilt, including the balustrade and re-surfacing'.
- 5.4.2 The expert noted the following:
- 'The deck has been well constructed and is being well maintained' with sufficient clearance to the cladding and has sufficient fall to the perimeter gutter.

- The 200mm wide x 50mm deep membrane-lined gutter falls towards the drainage outlet, with an adjacent overflow provided.

5.4.3 The expert concluded that the deck membrane is performing satisfactorily and, given routine maintenance, will continue to do so.

5.5 A copy of the expert's report was provided to the parties on 3 October 2011.

6. Discussion

6.1 Matter 1: The repairs to the windows

6.1.1 Taking account of the expert's report, I am satisfied that the drainage gaps to the subject windows are satisfactory in the circumstances and that the windows comply with Clauses B2 and E2 of the Building Code.

6.2 Matter 2: The deck membrane

6.2.1 Although not specifically referred to in the Act, producer statements can support other evidence in providing an authority reasonable grounds to be satisfied that building work complies with the Building Code. The level of consideration given to producer statements is discretionary and each authority must decide whether to consider them and how much weight a producer statement may be given in the certification processes.

6.2.2 In the case of this membrane, the authority has stated that the provision of a producer statement will assist it to establish 'reasonable grounds to be satisfied that building code compliance has been achieved' (see paragraph 3.7).

6.2.3 I make the following observations about the deck membrane:

- defects in the original butyl rubber were not identified in the first determination or the notice to fix
- the new vinyl membrane has been recently installed
- the authority did not inspect the substrate and it is not clear what underlies the new membrane
- the inspection record mistakenly refers to the new membrane as butyl rubber, indicating some confusion as to the particular type of membrane installed.

Taking the above circumstances into account, I consider that requiring an appropriate producer statement for the deck membrane was reasonable.

6.2.4 However for the purposes of this determination we have relied on the appraisal and independent observation of how the membrane is now performing to come to a view as to whether the membrane complies with the Building Code.

6.2.5 The expert's assessment indicates that the deck membrane has been satisfactorily installed; and the authority's final inspection did not identify any defects relating to the membrane. The expert observed that the slope of the deck is less than that recommended in the appraisal. However this is a small deck of 5m² and it is

shedding water satisfactorily. I consider these are reasonable grounds for the view that the deck complies with Clauses E2 and B2 of the Building Code.

7. The decision

- 7.1 In accordance with section 188 of the Building Act 2004, I hereby determine that the repairs to the windows and the installed deck membrane comply with Clauses B2 Durability and E2 External Moisture of the Building Code.

Signed for and on behalf of the Chief Executive of the Department of Building and Housing on 18 November 2011.

John Gardiner
Manager Determinations