



Determination 2009/51

The code-compliance of an altered and extended house located at 53 Ocean View Road, Waihi Beach



1 The matter 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 the Department.
- 1.2 The applicants are the current owners of the house, T Grey, S Corless and B Corless (“the applicants”). The other parties are; the Western Bay of Plenty District Council (the authority) carrying out its duties and functions as a territorial authority or building consent authority, and the previous owners, Mr and Mrs Barnett (“the previous owners”), acting through their legal adviser. The builder is included as person with an interest in the determination.
- 1.3 I take the view that the matters for determination in terms of sections 177(a), 177(b)(i)² are:
- (a) whether the house complies with relevant clauses of the Building Code³ (Schedule 1, Building Regulations 1992)

¹ The Building Act 2004 is available from the Department’s website at www.dbh.govt.nz.

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.

³ The Building Code is available from the Department’s website at www.dbh.govt.nz.

- (b) whether the decision by the authority to refuse to issue a code compliance certificate for the house was correct.
- (c) whether the house complies with the Building Code Clause B2 Durability taking into account the age of the building work.

1.4 In making my decision, I have considered the submissions of the parties, the report from an 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 extensive alterations and extensions (“the alterations”) to an existing single-storey house situated on a slightly sloping site that is in a medium wind zone for the purposes of NZS 3604⁴. The building site is also in a sea-spray zone. The alterations consist of a two-storey living and bedroom addition including a single-storey garage. The new work comprises light timber construction on timber-framed or concrete ground floor slabs, and has timber framed intermediate floors. The roof cladding is corrugated steel. The roofs have 400mm wide eaves projections. Powder-coated aluminium windows have been installed throughout. The windows in the stucco-clad walls have external timber surrounds.
- 2.2 The original house has been reclad with solid plaster applied directly over the existing weatherboards, and new corrugated steel roofing to replace the existing. The original timber windows have been replaced with aluminium joinery.
- 2.3 The completed house is relatively simple in shape and plan but has some complex features. A small deck is located adjacent to the first floor bedroom and is constructed over a living area. The deck has a solid balustrade.
- 2.4 The upper-level walls of the alterations and the outer face of the deck balustrade are clad with unpainted bevel-backed rusticated Cedar weatherboards. The external walls of the lower-level alterations are clad with 20 mm thick solid plaster applied over fibre-cement sheets. Both claddings are fixed directly through a building wrap to the framing.
- 2.5 The previous owners have submitted that the external wall framing was ‘boric treated H1.3’, which I assume to be boric treated H1.2 as the latter treatment was available at time of construction. NZS 3602:2003, the standard which sets out treatment requirements was published after the house was consented and I have not been provided with any evidence, such as a materials invoice or test results, to confirm the treatment.

3. Background

- 3.1 The authority issued a building consent dated 23 July 2002 (No 67443) for alterations to an existing house under the Building Act 1991 (“the former Act”). I have been informed by the applicants that construction commenced in October 2002 and was completed in April 2003.

⁴ New Zealand Standard NZS 3604:1999 Timber Framed Buildings

- 3.2 The authority undertook inspections during the construction of the alterations, including a pre-lining inspection in December 2002 and a first final inspection on 2 November 2006.
- 3.3 The authority wrote to the builder on 9 November 2006, noting that it had carried out a final inspection of the property. The authority also listed 12 items that required attention. Subsequently the builder requested that the authority undertake a further inspection.
- 3.4 I note that the authority has not issued a notice to fix in respect of the items listed in its letter of 9 November 2006.
- 3.5 The authority again wrote to the builder on 7 August 2007, stating that it required as-built drawings relating to the waterproofing of the deck over the extended lounge. The authority was of the opinion that the building work generally complied with the requirements of the Building Code in force at the time, however given the 4-year delay between the previous and final inspections, reasonable progress had not been made on the house.
- 3.6 According to the previous owners the authority was supplied with amended plans some time after 16 May 2007.
- 3.7 The authority wrote to the previous owners' legal adviser on 20 November 2007, noting that the lack of producer statements for the trusses and deck waterproofing were not the only reasons why the authority declined to issue a code compliance certificate.
- 3.8 The application for a determination was received by the Department on 11 September 2008.

4. The submissions

- 4.1 In a covering note to the application, the previous owners set out the background to the matters in dispute.
- 4.2 The applicant, through the previous owners' legal adviser, forwarded copies of:
- the plans and some additional details
 - the building consent
 - some invoices
 - a producer statement dated 31 January 2008 from the installer of the waterproofing membrane to the decks
 - correspondence between the parties.
- 4.3 The authority noted that it did not wish to comment until a draft determination was issued. The authority forwarded copies of some of the correspondence described above.

- 4.4 Copies of a draft determination were forwarded to the parties and the persons with an interest on 20 January 2009.
- 4.5 The previous owners did not accept the draft determination and provided a submission dated 2 February 2009 in response. The majority of the points raised were in relation to clarification of the findings in the expert's report. The submission also pointed out that the plans for the alterations were approved by the authority, and that the authority also inspected and approved the work during its construction.
- 4.6 I note that the previous owners' submission raised concerns that a number of items listed in the expert's report as being not compliant as a result of inadequate maintenance. I consider this is not a matter for determination. I note that the expert's inspection is contemporary, and is part of the evidence base that assists me in determining whether the building work is currently code-compliant, and hence whether the authority should, or should not, now issue a code compliance certificate.
- 4.7 I have noted the previous owners' concerns and have amended the determination as appropriate.
- 4.8 The previous owners' submission also refers to the requirements of the Building Code in force at the time the consent was issued. I note the Building Act (both 1991 and 2004) requires all building work to comply with the requirements of the Building Code, and this requirement would have applied to the alteration work. While compliance documents, such as the Acceptable Solution for Building Code Clause E2 External Moisture, have undergone significant revision since the alterations were consented in July 2002, the requirements of the Building Code itself have not changed to any significant extent.
- 4.9 The authority accepted the draft determination in a letter dated 10 February 2009 subject to non-contentious comments. I have made those amendments to the draft determination that I consider to be appropriate.
- 4.10 The current owner accepted the draft determination in an email dated 29 April 2009 subject to the same comments as those provided by the authority.
- 4.11 A second draft determination was forwarded to the parties and the persons with an interest on 4 May 2009 taking account of the submissions noted above.
- 4.12 The current owners accepted the draft determination without comment. The previous owners also accepted the draft noting that 'the producer statements for both trusses and the deck waterproofing had previously been supplied to the [authority] but the [authority] lost that information within its system.'
- 4.13 The authority responded to the draft in an email to the Department dated 29 May 2009, followed by a letter dated 2 June 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.
- 4.14 The authority proposed the date that compliance with Clause B2 was achieved on 30 April 2003, being the likely date of substantial completion. In an email to the

Department dated 10 July 2009, the applicant agreed that compliance with Clause B2 was achieved on 30 April 2003.

5 The expert's report

5.1 As mentioned in paragraph 1.4, 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 2 December 2008 and furnished a report that was completed on 12 December 2008.

5.2 The expert carried out a series of both invasive and non-invasive moisture readings on the interior and exterior of the alterations. The expert took invasive moisture readings through the cladding at areas considered at risk, and noted the following elevated readings:

- 36% below the window sill on the north east elevation.
- 26% in the bottom plate to the north east elevation.
- 23% to the timber facing at the head of the window to the south east elevation.
- 22% to the sill of the same window.

I note that none of the remaining internal non-invasive moisture readings were recorded at over 12%. Moisture levels that vary significantly generally indicate that external moisture is entering the structure.

5.3 Commenting specifically on the wall cladding, the expert noted that:

- There are numerous cracks in the cladding.
- The cladding is not painted where it is carried up under the spouting.
- The cladding is carried down onto the surface of the ground floor decks at some locations.
- Some weatherboards to the northeast elevation are buckled and will not remain weathertight.
- No flashing has been fitted at the base of the weatherboards at the northeast elevation where they abut the stucco plaster and the fibre-cement backing sheet has been carried up into the rebate
- No seals or scribes are installed to the windows fixed to the weatherboard lined walls and the windows are not fitted hard back to the face of the weatherboards.
- There are no flashings installed to the external timber window facings that abut the stucco plaster. (Flashings are installed to the heads of the windows themselves.)
- There is no evidence to show that saddle flashings or cap flashings are installed to the first floor deck balustrade. (The balustrade to the ground floor slatted deck is not part of the consented work and does not form part of this

determination. I note the balustrade to the ground floor deck is not attached to the house, nor is it required to comply with Clause F4.)

- The timber capping to the first floor deck balustrade lacks cross-falls and flashings. The post is inadequately sealed at the junction with the timber balustrade capping.
- The penetrations through the cladding are inadequately sealed.
- The membrane gutter located where the upper floor stands above the original roof line has failed.
- The internal gutter situated above the garage is leaking and as a result rainwater is ponding in the ceiling space.
- The roof apron flashings are poorly detailed and lack adequate base clearances and kick-outs.

5.4 The expert made the following additional comments (the relevant code clause is noted):

- Insulation is not fitted to the wall between the house and the garage (Clause H1 Energy Efficiency).
- The laundry tub is not sealed to the wall (Clause E3 Internal Moisture).
- A section of handrail is missing from the lower flight of stairs (Clause F4 Safety from falling).
- While smoke alarms had been installed, one of these has failed (Clause F7 Warning systems).

5.5 The expert has also noted that the cladding is close to the paving in the vicinity of the garage door but that the paving slopes away from the building. I accept the expert's opinion that this is acceptable.

5.6 The expert noted no other matters of non-compliance.

5.7 With respect the insulation to the wall between the house and the garage, I acknowledge that while the wall is existing it appears that the wall was relined and has had other significant modifications made to it as part of the alteration work. In my view the wall should have been insulated.

5.8 I note that the requirement for domestic smoke detectors in the Acceptable Solution for Building Code Clause F7 Warning Systems, F7/AS1, and the change to Clause F7 itself, did not come into effect until April 2003. The consent for the alterations was issued in April 2002. Subsequent changes to the Building Code (and any associated changes to the relevant Acceptable Solutions) cannot be enforced retrospectively. However, irrespective of this I strongly recommend that the defective smoke detector be fixed.

6 Discussion

6.1 I consider the expert's report establishes that the current performance of the cladding is not adequate because it is allowing water penetration into the building at present.

Consequently, I am satisfied that the house does not comply with Clause E2 of the Building Code.

- 6.2 In addition, the building is also required to comply with the durability requirements of Clause B2 “Durability”. 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 and roofing faults on the building are likely to continue to allow the ingress of moisture in the future, the alteration does not comply with the durability requirements of Clause B2.
- 6.3 Because the faults identified with the cladding occur in discrete areas, I am able to conclude that satisfactory rectification and investigation of the items outlined in paragraph 5.3 will result in the house being brought into compliance with Clauses B2 and E2.
- 6.4 However, given the high moisture readings noted in some cladding locations, the age of the construction, and the likelihood of the use of untreated framing timber, I recommend that further investigation be carried out to confirm that the timber framing has not decayed as a result of prolonged moisture ingress.
- 6.5 There are also other matters of non-compliance identified by the expert in paragraph 5.4 and, I accept that the alterations do not comply with Clauses E3 Internal moisture, F4 Safety from falling, and H1 Energy efficiency.
- 6.6 The expert noted that one of the smoke alarms is defective. While the installation of domestic smoke detectors was not a requirement of the Building Code at the time the building consent for this work was issued, I strongly recommend that the defective smoke detector is rectified.
- 6.7 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).

7 Durability modification

- 7.1 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 2003.
- 7.2 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).
- 7.3 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.

7.4 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.

7.5 It is not disputed and therefore I am satisfied, that all the building elements complied with Clause B2 on 30 April 2003, refer to paragraph 4.14.

7.6 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.

7.7 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 2003.

7.8 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.

8 What is to be done now?

8.1 I suggest that the authority issues a notice to fix that requires the owner to bring the building work into compliance with the Building Code. The notice should identify the defects listed in paragraphs 5.3 and 5.4, referring to any further defect that might arise from further investigation (refer paragraph 6.4) and any other defects discovered in the course of the rectification work. The notice should not specify how the defects are to be fixed, that is a matter for the current owner to propose and for the authority to accept or reject. It is important to note that the Building Code allows for more than one method of achieving compliance.

8.2 I suggest that the parties adopt the following process to meet the requirements of paragraph 8.1. Initially, the authority should issue the notice to fix. The owners

should then produce a response to this in the form of a detailed proposal, produced in conjunction with a competent and suitably qualified person, as to the rectification or otherwise of the specified issues. Any outstanding items of disagreement can then be referred to the Chief Executive for a further binding determination

9 The decision

9.1 In accordance with section 188 I hereby:

- (a) determine that the house does not comply with Clauses B2, E2, E3, F4, and H1 of the Building Code, and
- (b) confirm the decision by the authority to refuse to issue a code compliance certificate for the house.

9.2 I also determine that:

- all the building , apart from the items that are to be rectified as described in this determination, installed in the building complied with Clause B2 on 30 April 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 30 April 2003 instead of from the time of issue of the code compliance certificate for all of the building elements, except the items that are to be rectified, as described in Determination 2009/51.

Signed for and on behalf of the Chief Executive of the Department of Building and Housing on 23 July 2009.

John Gardiner
Manager Determinations