

Determination 2007/100

Determination regarding a code compliance certificate for a house at 43 Furlong Crescent, Churton Park, Wellington



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 that Department. The applicants are the owners of the building, Mr and Mrs Moncur (“the applicants”) and the other party is the Wellington City Council (“the territorial authority”).
- 1.2 This determination arises from the decision of the territorial authority to refuse to issue a code compliance certificate for a 3-year old house because it was not satisfied that it complied with the Building Code² (First Schedule, Building Regulations 1992).
- 1.3 I consider that the matter to be determined is whether the monolithic cladding as installed on the building, complies with clauses B2 “Durability” and E2 “External Moisture” of the Building Code (see sections 177 and 188 of the Act). By “the cladding as installed” I mean the components of the system (such as the backing materials, the flashings, the joints and the coatings) as well as the way the components have been installed and work together.

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

² The Building Code is available from the Department’s website at www.dbh.govt.nz.

- 1.4 In making my decision, I have considered the submissions of the parties, the report of the independent expert commissioned by the Department to advise on this dispute (“the expert”), and the other evidence in this matter. I have evaluated this information using a framework that I describe more fully in paragraph 6.1.
- 1.5 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.

2. The building

- 2.1 The building work consists of a two-storey detached house situated on a level site, which is in a high wind zone for the purposes of NZS 3604³. The house is relatively simple in plan and form and construction is conventional light timber frame constructed on concrete or timber-framed floors. The pitched roofs are at two main levels with hip, valley and wall-to-roof junctions, and 600mm wide eaves and 300mm wide verge projections. The lower roof also extends over the front entry.
- 2.2 A timber-framed boarded deck is constructed at ground level adjacent to the dining room and kitchen, and this has a balustrade formed from timber posts, rails, and balusters.
- 2.3 The specification calls for the external wall framing to be “*No 1 RBPT*”. However, I have not received any further information as to the treatment, if any, of this framing.
- 2.4 The lower walls of the house are mainly clad with fibre-cement sheets secured through a building wrap onto 30mm timber cavity battens that are fixed to the wall framing. The fibre-cement sheets are finished with a “Rockcote LiteRock Plus Solid Render” system.
- 2.5 The upper level walls and some lower wall infill panels are clad with rusticated Cedar weatherboards.

3. Sequence of events

- 3.1 The territorial authority issued a building consent (No 105493) on 10 September 2003, under the Building Act 1991.
- 3.2 The consent was amended by the territorial authority on 17 December 2003 to accommodate the substitution of the original wall cladding with the “Literock” system.
- 3.3 The territorial authority inspected the house during its construction from 12 September 2003 up to 1 February 2005, at which time a remedial final inspection was carried out. The site report relating to the last inspection noted that remedial work requirements previously listed had been carried out but a re-inspection was required to receive the outstanding documentation required by the territorial authority and to confirm that barriers were in place to the retaining walls.

^{3 3} New Zealand Standard NZS 3604:1999 Timber Framed Buildings

- 3.4 The applicants forwarded an application for a code compliance certificate to the territorial authority on 29 October 2005. In a covering letter of the same date, the applicants noted that neither the shower tanking applicator nor the cladding coating manufacturer would supply a warranty as they were both in dispute with the builder and developer. However, in the applicants' opinion the performance of the tanking was not in dispute. The applicants also attached verification of the textured plaster applicator's qualifications, together with a gas certificate and an electrical certificate. The applicants believed that the building was code-compliant.
- 3.5 In response to the code compliance certificate application from the owners, the territorial authority noted, on 9 November 2005, that "*a further site visit is required and outstanding documentation to be provided before a CCC can be considered*".
- 3.6 The territorial authority inspected the property on 11 November 2005, following which it issued a notice to fix also dated 11 November 2005. The notice listed the particulars of contravention or non-compliance as:

Namely a dwelling has been done that does not comply with Clause E2 External Moisture of the Building Code. Section 17 of the Building Act 2004 requires that all building work must comply with the Building Code.

The notice also referred to two site report sheets (No.s 16096 and 16097) that listed some remedial work required in relation to the cladding. The report sheets also requested the supply of written details relating to the lower-level shower, together with:

a current manufacturer's product warranty and approved applicator cert for the textured coating system applied to the dwelling. This will confirm that the product has been applied in accordance with the manufacturer's specs . . . "

- 3.7 The territorial authority carried out a further inspection on 27 February 2006 and the relevant site report (No. 17457) noted that the outstanding cladding problems had been fixed. The report also stated that required documentation for the shower and external cladding were still outstanding.
- 3.8 In a site report (No. 03369) dated 26 April 2006; the territorial authority confirmed that it had received a statement from the aluminium joinery manufacturers that, due to contractual issues, neither a producer statement nor a warranty for the joinery installed in the house would be issued.
- 3.9 The Department received an application for a determination on 30 May 2007.

4 The submissions

- 4.1 In a covering letter dated 28 May 2007, the applicants noted that the cladding applicator, despite several approaches from the applicants, would not supply a warranty as he was "in a financial dispute with the builder and developer". The applicants also asserted that the builder, in the presence of territorial authority officers, had advised one of the applicants that the house met all code compliance certificate requirements

4.2 The applicant forwarded copies of:

- a fax from the cladding coatings manufacturer dated 25 July 2005, stating that the applicator who carried out the textured coatings on the house was a licensed/ approved applicator
- the applicants' request for a code compliance certificate dated 29 October 2005
- some manufacturers' technical documentation and correspondence
- the electrical and gas certificates.

4.3 The territorial authority provided a submission to the Department dated 15 June 2007 that described the background to the matter in dispute. In describing its position, the territorial authority stated that it "*considers and relies upon statements and warranties from the building practitioners who carried out the work when assessing this building work*". As such documentation had not been supplied, the territorial authority considered that it did not have reasonable grounds on which to be satisfied that the work complied with the Building Code. The territorial authority also noted that when the final inspection took place on 26 February 2004, the remedial items were identified and the builder informed of them, the remedial items included the need for a "*texture coating applicators warranty for the lower external walls*".

4.4 The territorial authority forwarded copies of:

- the plans and specifications
- the building consent and the cladding amendment
- the consent and inspection documentation
- the notice to fix
- the correspondence with the applicants
- some manufacturers' technical documentation and correspondence.

4.5 Copies of the documentation were forwarded to each of the parties.

4.6 The draft determination was issued to the parties for comment on 22 August 2007. The applicant accepted the draft without comment. The territorial authority also accepted the draft but raised two inconsistencies and typographical errors. I have amended the determination accordingly.

5. The expert's report

5.1 As mentioned in paragraph 1.4, I engaged an independent expert, who is a member of the New Zealand Institute of Building Surveyors, to provide an assessment of the condition of those building elements subject to this determination.

- 5.2 The expert inspected the cladding of the house on 29 June 2007 and 2 August 2007, and furnished a report that was received later in August 2007. The expert removed sections of cladding at two window sill/jamb junctions and I am prepared to accept that the details exposed at these situations apply to other similar locations throughout the building.
- 5.3 The expert took non-invasive moisture readings internally around the house and also invasive moisture readings around the exterior of the building. All readings were within the “equilibrium range”.
- 5.4 Commenting specifically on the cladding, the expert noted that both types are neatly fixed. The expert noted that one monolithic-clad south wall is in excess of the 6 metres length required by the manufacturer as requiring a control joint. However, there are no signs of cracking in this wall. The expert also observed that the cover flashings to the sides of the lounge east bay window did not completely cover the under flashing. However, there was not evidence of moisture entry at these locations and accordingly, the expert was of the opinion that both of the external wall cladding systems as installed are in compliance with clauses B2 and E2
- 5.5 The expert was also informed by the applicants that the territorial authority had now accepted that the walk-in shower complied with clause E3.
- 5.6 Copies of the expert’s report were provided to each of the parties on 16 August 2007.

6. Evaluation for code compliance

6.1 Evaluation framework

- 6.1.1 In evaluating the design of a building and its construction, it is useful to make some comparisons with the relevant Acceptable Solution⁴, in this case E2/AS1, 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:
1. 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.
 2. 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.
- 6.1.2 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

⁴ 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.

risk factors in previous determinations⁵ (for example, Determination 2004/1) relating to cladding and these factors are also used in the evaluation process.

- 6.1.3 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.

6.2 Weathertightness risk

6.2.1 In relation to these characteristics I find that the house:

- is built in a high wind zone
- is two storey
- is relatively simple in plan and form
- has 600mm wide eaves and 300mm wide verge projections that provide good protection to the cladding beneath them
- has one ground floor deck but no high-level decks or balconies
- has external wall framing that may not be treated to a level that provides resistance to the onset of decay if the framing absorbs and retains moisture.

6.2.2 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 to provide a risk rating that can range from 'low' to 'very high'. The risk rating is applied to determine how claddings can be used on a building in order to comply with E2/AS1. A higher risk rating will require more rigorous weatherproof detailing; for example, a higher risk rating is likely to require a particular type of cladding to be installed over a drained cavity

6.2.3 When evaluated using the E2/AS1 risk matrix, one elevation of the house demonstrates a high weathertightness risk and the remaining elevations a medium risk. The monolithic cladding is required to be installed over a cavity to meet the requirements of E2/AS1; a cavity has been provided in this instance.

6.3 Weathertightness performance

6.3.1 The monolithic cladding appears to have been installed in accordance with good trade practice. I accept the expert's opinion that remedial work is not required as regards the lack of one control joint and the lounge east bay window jamb flashings.

⁵ Copies of all determinations issued by the Department can be obtained from the Department's website.

7 Discussion

7.1 Under the Act, if a territorial authority is satisfied on reasonable grounds that building work complies with the building consent, it must under section 94(1)(a) issue a code compliance certificate, unless certain other conditions, which do not apply in this case, are not met. A territorial authority therefore is required to assess whether the work as described in the building consent application will comply with the building code.

7.2 In this instance, full inspections were carried out by the territorial authority during the construction period. As the remedial work required by the territorial authority has been carried out, the territorial authority does not appear at this time to be querying the quality and effectiveness of cladding. The only outstanding items are what are effectively producer statements relating to the monolithic cladding and walk-in shower that the territorial authority has requested. In regard to the shower area, I note that in its site report No. 569421 of 18 June 2007, the territorial authority has stated:

The Council has accepted the statement from [one of the applicants] 29 October 05 re the internal wet area shower on the lower level.

Accordingly, I am of the opinion that I am not required to determine the compliance of this shower area

7.3 I note that producer statements are no longer directly referred to in the Act. Section 49(1) requires a territorial authority to be satisfied on reasonable grounds as to compliance with the Building Code. This can be compared with section 33(5) of the 1991 Act, which allowed a territorial authority to accept, at its discretion, a producer statement as a means of establishing compliance with the Building Code. While a producer statement can be offered by an owner as a means of establishing compliance, I am of the opinion that a territorial authority cannot demand one.

7.4 Accordingly, as I consider the expert's report establishes that the monolithic cladding is correctly installed and that there is no evidence of external moisture entering the building, I do not consider that a producer statement is required in this instance. Accordingly, I accept that the monolithic cladding installed on this house complies with clauses B2 and E2.

7.5 It is emphasised that each determination is conducted on a case-by-case basis. Accordingly, the fact that a particular cladding system has been established as being code compliant in relation to a particular building does not necessarily mean that the same cladding system will be code compliant in another situation.

7.6 Effective maintenance of claddings (in particular monolithic cladding) 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).

8 The Decision

- 8.1 In accordance with section 188 of the Building Act 2004, I determine that the monolithic cladding on the building complies with clauses B2 and E2 of the Building Code, and accordingly reverse the territorial authority's decision to refuse to issue a code compliance certificate.

Signed for and on behalf of the Chief Executive of the Department of Building and Housing on 04 September 2007.

John Gardiner
Manager Determinations