

## Determination 2007/31

### Refusal of a code compliance certificate for a house at 43B Wye Street, Island Bay, Wellington



#### 1 The matter 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, Determinations Manager, 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 Robinson (“the applicants”), and the other party is the Wellington City Council (“the territorial authority”).
- 1.2 The matter for determination is the territorial authority’s decision to decline to inspect a 6-year old house or issue a code compliance certificate. The decision arose because the building had been erected under the regulatory control of Nationwide Building Certifiers Ltd (“the building certifier”), which was duly registered as a building certifier under the former Building Act 1991 but lost its approval as a building certifier before it had issued a code compliance certificate for the work.
- 1.3 In order to determine that matter, I must first decide whether the building complies with the Building Code. The territorial authority has also noted that the completed building has incorporated changes from the consented plans and the territorial authority has not been notified of these changes.

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<sup>1</sup> The Building Act 2004 is available from the Department’s website at [www.dbh.govt.nz](http://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 in relation to the cladding using a framework that I describe more fully in paragraph 7.1.
- 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 detached two-storey house situated on an excavated sloping site, which is in a high wind zone for the purposes of NZS 3604<sup>2</sup>. The house is of a relatively simple shape on plan but with some complex features. The pitched roofs have hip and valley junctions and lack eaves projections except for two minor locations that have either 200mm or 600mm wide projections. The roof is also extended over the upper-level entrance and this extended roof area is supported on timber posts and beams. A small area of flat roof is situated over the family room projecting window.
- 2.2 The lower-level external walls are of concrete block construction, and have a cement-based rendered finish. The upper-level external wall construction is of conventional light timber frame built on either concrete or concrete on “Tray-dek” floors. An external concrete decked balcony is constructed outside the upper-level living room and this has a metal and glazed balustrade. A timber-framed deck supported on timber posts and beams is situated at the northeast corner of the lower level and this has a balustrade formed from timber rails and balusters.
- 2.3 I have not received any evidence that establishes whether the external wall framing is treated to a level that is effective in helping resist decay if it absorbs and retains moisture.
- 2.4 The cladding to the upper-level walls is a mixture of rusticated profile rough-sawn Cedar weatherboards and brick veneer. The weatherboards are fixed through the building wrap directly to the framing timbers.

## **3 Sequence of events**

- 3.1 The building certifier was approved as a building certifier under section 53 of the Building Act 1991 on 5 January 1999.
- 3.2 The territorial authority issued a building consent on 7 January 2002, based on a building certificate issued by the building certifier dated 4 January 2002. The building certificate did not contain any exclusion under its scope of engagement.
- 3.3 The building certifier carried out various inspections during construction and undertook a final inspection of the house on 11 October 2002. The corresponding “Notice of Inspection” dated 11 October 2002 stated that the house was completed and all work was done except for the driveway.

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<sup>2</sup> *New Zealand Standard NZS 3604:1999 Timber Framed Buildings*

- 3.4 The building certifier issued an interim code compliance certificate dated 16 October 2002. This certificate noted that all aspects of the dwelling were complete apart from the driveway and landscaping.
- 3.5 The building certifier's scope of approval was amended on 1 January 2003 to exclude, in general terms, claddings outside the Acceptable Solution<sup>3</sup> for clause E2 "External Moisture" (being, in this case, E2/AS1). I note the building's cladding was included in the version of E2/AS1 that was in force at the time of construction. The restrictions did not apply at the time the building certifier completed its final inspection and issued the interim code compliance certificate.
- 3.6 It appears that the building certifier's Wellington office was closed in May 2004. The building certifier's approval as a certifier expired on 30 December 2004.
- 3.7 The territorial authority wrote to the applicants on 24 May 2006. The territorial authority noted that, after reviewing the documentation, it had insufficient grounds to be satisfied that the building work was Code compliant. The territorial authority was not prepared to take any further action under the building consent. The territorial authority presented three options to the applicants: they could either:
- apply to the Department for a determination, or
  - apply for a certificate of acceptance from the territorial authority, or
  - rely on the building certifier's interim code compliance certificate and take no further action.
- 3.8 The Department received the applicants' application for a determination on 31 July 2006.

## 4 The submissions

- 4.1 In a letter to the Department dated 16 July 2006, the applicants set out some of the background and noted that as they had only an interim code compliance certificate, they now required a final one from the territorial authority.
- 4.2 The applicants forwarded copies of:
- the amended plans
  - some consent and inspection information
  - the interim code compliance certificate
  - an electrical certificate of compliance
  - a construction review producer statement from a firm of consulting engineers dated 14 October 2002. This stated that, on reasonable grounds it was believed the parts of the structure outside the scope of NZS 3604:1999 had been completed to the extent required by the drawings and specifications.
- 4.3 The territorial authority wrote to the Department on 23 August 2006, setting out the background to the dispute and listed the inspection documentation that it had received from the building certifier. The territorial authority stated that it had not

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<sup>3</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).

carried out any inspections of the building work, nor had the building certifier notified the territorial authority that it was unable to inspect or certify the building work, as required by section 57(3) of the 1991 Act. In addition, the territorial authority considered that the issuing of a certificate of acceptance under section 437 of the Act was the appropriate method to deal with the issues. The territorial authority also noted that the plans supplied by the applicants in support of the application were different from the consented plans and that the applicants had not applied to have the building consent amended to reflect the differences between the two sets of plans.

4.4 The territorial authority forwarded copies of:

- the consented plans
- the inspection documentation forwarded by the building certifier
- the territorial authority's letter to the applicants of 24 May 2006.

4.5 Copies of the submissions and other evidence were provided to the applicants and the territorial authority.

4.6 A copy of the draft determination was issued to the parties for comment on 1 December 2006. The applicants accepted the draft.

4.7 The territorial authority responded in a letter from its legal advisers dated 23 January 2007. The submission was largely in response to discussion in the draft determination about the transitional provisions in the Building Act 2004 and how a territorial authority might apply these in situations when a building certifier had been engaged but was not able to properly sign-off the completed work. The submission also noted some typographical errors in the draft determination.

4.8 A copy of the second draft determination was issued to the parties for comment on 1 March 2007. The applicants accepted the draft. The territorial authority accepted the draft but noted additional typographical errors.

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

5.1 I find that the available documentation, which includes the building certifier's inspection reports, the construction review producer statement, and the expert's report, allows me to form a view as to the code compliance of the building work as a whole. In this particular case, additional reliance can be placed on the building certifier's inspections as it had issued an interim code compliance certificate which was within the building certifier's scope of approval at the time of issue (refer paragraph 3.5). The interim code compliance certificate noted that all aspects of the dwelling were complete apart from the driveway and landscaping.

5.2 Taken together, these sources of information provides reasonable grounds for me to form a view that the building as a whole will comply with the building code, once the defects noted in paragraph 6.4 have been fixed to the satisfaction of the territorial authority.

5.3 With specific regard to inaccessible building components, and in the absence of any evidence to the contrary, I take the view that the Department is entitled to rely on the inspections undertaken by the building certifier, along with other supporting evidence.

5.4 However, before deciding whether or not to rely on the building certifier's inspection reports, I consider it important to look for evidence that corroborates them. In this particular case, corroboration comes from the visual inspection of the accessible components by the expert, which can be used to verify whether the building certifier's inspections were properly conducted.

5.5 In this particular instance, the visual inspection of the accessible components has verified code compliance of those components. This provides grounds for me to form a view that the building work as a whole, including the inaccessible components, complies with the building code.

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

6.1 As noted in paragraph 1.4, I engaged an independent expert to inspect the dwelling, and report on the compliance of the building work with the relevant requirements of the building code. The expert is a member of the New Zealand Institute of Building Surveyors.

6.2 The expert inspected the building on 26 and 27 September 2006 and furnished a report that was completed on 4 October 2006. The expert was of the opinion that both the weatherboards and the brick veneer comply with the requirements of E2 and that the standard of finish is good. The cladding did not require control joints and there was no visible cracking. The cladding, roofs and flashings are constructed in accordance with the manufacturer's instructions. In a covering letter also dated 4 October 2006, the expert was of the opinion that the building complied with clauses E1, E3, F4, G4, and G5.

6.3 The expert took non-invasive moisture readings through the interior linings and invasive moisture readings into the exterior of the wall framing, and no raised readings were obtained. There is no evidence of moisture penetration at these locations.

6.4 The expert made the following comments regarding the weatherboard claddings:

- The gap between the window head and the weatherboards at the southeast family room windows requires sealing.
- There are no plugs to the rusticated weatherboards installed down the rake of the gables at the weatherboard/metal fascia junction. However, there was no evidence of moisture penetration at these locations.
- The stain finish applied to the weatherboards is beginning to break down on the north facing walls.

6.5 Copies of the expert's report were provided to each of the parties on 2 October 2006. The applicants did not respond. The territorial authority forwarded its response in a letter to the Department dated 19 October 2006. In summary, the territorial authority raised issues in regard to the:

- compliance of those building elements other than the external cladding
- suitability of the skylights
- undocumented changes to the consented plans
- additional risk areas in the house (including finishing system to the plastered

brick walls, method of fixing the balcony to the block wall, wicking to the block wall, detailing around joinery to the blockwork head flashings, and falls to the exterior decks).

## **7 Evaluation for code compliance: the cladding**

### **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 Solution, in this case E2/AS1, which will assist in determining whether the features of the building are code compliant.

However, in making this comparison, the following general observations are valid:

- Some Acceptable Solutions 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 some other provision to compensate for that in order to comply with the Building Code.

7.1.2 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 risk factors in previous determinations<sup>4</sup> (refer to Determination 2004/1 *et al*) relating to cladding and these factors are also used in the evaluation process.

7.1.3 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.

### **7.2 Weathertightness risk**

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

- is built in a high wind zone
- is two storeys high
- is relatively simple in plan and form but has some complex features
- has only minimal eaves projections, which together with the roof extensions, provide limited protection to the cladding under them
- has one high-level external balcony
- has external wall framing that is likely to be untreated, so providing little resistance to the onset of decay if the framing absorbs and retains moisture.

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<sup>4</sup> Copies of all determinations issued by the Department can be obtained from the Department's website.

7.2.2 When evaluated using the E2/AS1 risk matrix, all elevations of the house demonstrate a high weathertightness risk. The matrix is an assessment tool that is intended to be used at the time of application for consent, before the building work has begun and, consequently, before any assessment of the quality of the building work can be made. Poorly executed building work introduces a risk that cannot be taken into account in the consent stage but must be taken into account when the building as actually built is assessed for the purposes of issuing a code compliance certificate.

### **7.3 Weathertightness performance**

7.3.1 Generally the claddings appear to have been installed in accordance with good trade practice. However, some junctions are not well constructed, and these are as described in paragraph 6.4 and in the expert's report.

7.3.2 Notwithstanding the fact that the weatherboard claddings are fixed directly to the timber framing, thus limiting drainage and ventilation behind the cladding, I have noted that, apart from a few exceptions, the cladding and the brick veneer are installed to good trade practice, which helps the performance of these elements in this particular case and assists the building to comply with the weathertightness and durability provisions of the Building Code.

## **8 Discussion**

8.1 I am satisfied that there is no evidence of external moisture entering the building, and accordingly, that its weatherboard cladding does comply with clause E2 at this time. In addition, I consider that the brick veneer complies with both clauses B2 and E2 at this time.

8.2 However, the building is also required to comply fully 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 additions to remain weathertight. Because the weatherboard cladding faults on the building are likely to allow the ingress of moisture in the future, the house does not comply with the durability requirements of clause B2.

8.3 I conclude that, because the faults identified with the weatherboard cladding system are so minor, I can conclude that satisfactory rectification of the items outlined in paragraph 6.4 will result in the building remaining weathertight and in compliance with clauses B2 and E2.

8.4 With regard to the matters raised by the territorial authority in its letter to the Department dated 19 October 2006, refer paragraph 6.5, I note the following:

- I am satisfied as to the compliance of the work other than that covered by the expert's report for the reasons set out in paragraphs 5.1 to 5.5.
- The skylights, balcony fixings, the balcony itself, and matters concerning the block work walls were considered in the expert's report. The expert did not raise any matters of non-compliance with respect to these items.

8.5 The territorial authority has noted that there were changes made to the building that were not noted as amendments on the consented plans. I consider this matter also needs to be resolved to the satisfaction of the territorial authority.

- 8.6 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. Clause B2.3.1 of the Building Code requires that the cladding be subject to “normal maintenance”, however that term is not defined in the Act.
- 8.7 I take the view that normal maintenance is that work generally recognised as necessary to achieve the expected durability for a given building element. With respect to the cladding, the extent and nature of the maintenance will depend on the material, or system, its geographical location and level of exposure. Following regular inspection, normal maintenance tasks should include but not be limited to:
- where applicable, following manufacturers’ maintenance recommendations
  - washing down surfaces, particularly those subject to wind-driven salt spray
  - re-coating protective finishes
  - replacing sealant, seals and gaskets in joints.
- 8.8 As the external wall framing of the building is not likely to be treated to a level that will resist the onset of decay if it gets wet, periodic checking of its moisture content should also be carried out as part of normal maintenance.

## **9 The Decision**

- 9.1 In accordance with section 188 of the Building Act 2004, I hereby determine that the weatherboard cladding does not comply with clause B2 of the Building Code and confirm the territorial authority’s decision not to issue a code compliance certificate was correct. Consequently, I find that the house does not comply with clause B2.
- 9.2 I note that the territorial authority has not issued a notice to fix. A notice to fix should be issued that requires the owners to bring the building into compliance with the building code, identifying the defects listed in paragraph 6.4 above and any further defects that might be discovered in the course of rectification work. The notice to fix should not specify how the defects are to be fixed as this is for the applicants to propose and for the territorial authority to accept or reject. It is important to note that the Building Code allows for more than one method of achieving compliance.
- 9.3 I would suggest that the parties adopt the following process to meet the requirements of paragraph 9.2. Initially, the territorial authority should issue a notice to fix, listing all the items that the territorial authority considers to be non-compliant. 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.

Signed for and on behalf of the Chief Executive of the Department of Building and Housing on 21 March 2007.

John Gardiner  
**Determinations Manager**