Determination 2007/42

Refusal of a code compliance certificate for a house at 45 Imlay Crescent, Ngaio, Wellington

1 The matter to be determined

1.1 This is a determination under Part 3 Subpart 1 of the Building Act 2004[1] ("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 applicant is the owner Mr Thomas ("the applicant"), and the other party is the Wellington City Council ("the territorial authority").

1.2 The application arises because the territorial authority declines to issue a code compliance certificate for a 4-year old addition to a house, as it did not:

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

- carry out any inspections of the building work undertaken under the building consent

- receive notifications from Nationwide Building Certifiers Ltd ("the building certifier") as required under the Building Act 1991 ("the 1991 Act").

1.3 The matter for determination is whether the territorial authority's decision to decline to issue a code compliance certificate for the house is correct. The refusal arose because the building had been erected under the supervision of Nationwide Building Certifiers Ltd ("the building certifier"), which was duly registered as a building certifier under the former Building Act 1991 but went out of business before it had issued a code compliance certificate for the building.

1.4 In order to determine that matter, I must first decide whether the building complies with the Building Code[2].

1.5 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, including the building certifier's inspections records. I have evaluated this information in relation to the cladding using a framework that I describe more fully in paragraph 6.1.

1.6 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 three-storey addition to a free-standing house situated on an excavated sloping site, which is in a low wind zone for the purposes of NZS 3604[3]. The addition is of a relatively simple shape on plan but with some complex features. The low-pitched roofs are at varying levels and have hip and wall-to-roof junctions. There are only small eaves projections, not the 500mm eaves shown on the drawings. The external wall construction is of conventional light timber frame built on timber-framed floors. I note that the deck and set of access steps shown on the consented plans have not been constructed.

2.2 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.

2.3 The external cladding system to the walls is bevel-backed timber weatherboards that match the existing cladding and these are fixed through the building wrap directly to the framing timbers.

[2] The Building Code is available from the Department's website at www.dbh.govt.nz.
[3] New Zealand Standard NZS 3604:1999 Timber Framed Buildings

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 10 January 2002, based on a building certificate issued by the building certifier dated 8 January 2002. The building certificate did not contain any exclusions from the building certifier's scope of engagement, nor was the work certified inconsistent with its approval as a building certifier.

3.3 The building certifier carried out various inspections during construction and approved the external cladding on 28 February 2002. However, because of a dispute with the applicant, the building certifier did not undertake a final inspection of the house.

3.4 The building certifier issued various "Building Certifier's Monthly Inspection Reports" and copies of these were forwarded to the territorial authority.

3.5 A "Building Certifier's Inspection Report" dated 30 April 2002 was issued by the building certifier. This noted that the building certifier was satisfied on reasonable grounds that the building work, up to and including the exterior cladding inspection, had been undertaken in accordance with the plans and specifications attached to the building consent.

3.6 The scope of the building certifier's approval was amended on 1 January 2003, when limitations were imposed with regard to compliance with E2/AS1 "only in respect of ordinary residential buildings". I note that the cladding to this house is generally within the scope of E2/AS1 as it applied at the time.

3.7 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.

3.8 The territorial authority wrote to the applicant on 13 June 2006, noting that, as it had not received a building certificate from the building certifier pursuant to the section 56 of the Building Act 1991, the territorial authority had insufficient grounds on which to be satisfied that the building work complied with the Building Code. Accordingly, the territorial authority was unable to issue a code compliance certificate. The territorial authority set out 3 options that the owner could pursue, and these were to:

1. apply to the Department for a determination
2. apply to the territorial authority for a certificate of acceptance
3. take no further action.

3.9 The Department received the application for a determination on 10 July 2006.

4 The submissions

4.1 In a covering letter to the Department dated 4 July 2006, the applicant set out the background relating to the matter in question.

4.2 The applicant forwarded copies of:

- some consent and inspection information
- the correspondence with the building certifier and the territorial authority.

4.3 The territorial authority wrote to the Department on 26 August 2006, setting out the background to the dispute and listing the inspection documentation that it had received from the building certifier. The territorial authority stated that it had not 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. As the building certifier had not supplied a building certificate under section 56 of the 1991 Act for the work or a code compliance certificate, it had insufficient grounds to be satisfied that the work was code compliant. The territorial authority also noted that the building certifier had had ample opportunity to inform the territorial authority as to the status of the building consent. 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.

4.4 The territorial authority forwarded copies of:

- the plans and specifications
- some consent and inspection information
- the inspection documentation forwarded by the building certifier
- correspondence with the applicant.

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 sent to the parties for comment on 8 March 2007. The applicant accepted the draft but noted that "adjustment to the landscaping level referred to in paragraph 9.1 . . . has . . . been done". The territorial authority accepted the draft but sought to have the determination better define the work that was required to make the building code compliant.

I have amended the determination as appropriate.

5. The grounds for the establishment of code compliance

5.1 I find that the available documentation, which includes the building certifier's inspection reports and the expert's report, allows me to form a view as to the code compliance of the building work as a whole. 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.

5.2 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.

5.3 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.

5.4 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 1.5, I commissioned an expert to inspect the dwelling, and evaluate the weathertightness performance of the cladding, in particular, before considering the other aspects. The expert is a member of the New Zealand Institute of Building Surveyors.

6.2 The expert inspected the building on 27 September 2006 and furnished a report that was completed on 10 October 2006. The expert was of the opinion that the standard of finish is very good and that the paint finish is effective. There was no evidence that any of the elements are not in accordance with the manufacturers' instructions. The expert noted that the southwest corner the landscaping is too close to the cladding.

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 high readings were recorded in either case.

6.4 Copies of the expert's report were provided to each of the parties on 14 November 2006.

6.5 The territorial authority responded in a letter to the Department received on 29 November 2006. The territorial authority noted that the wind zone for the building site is low and that the study skillion roof has a pitch of 2 degrees. The territorial authority pointed out that the skillion roof cladding was not described in either the consented plans or specifications. Nor had any product warranties or relevant statements from the applicator been supplied. The expert had not confirmed whether sill flashings had been installed. The territorial authority also listed risk areas that it believed that the expert had not considered. These can be summarised as the:

- fire ratings of elements adjoining the boundary
- siting of the additions
- flashings to weatherboards under the skillion roof
- lack of producer statements for the construction review of the engineer-designed elements.

6.6 The Department asked the expert to comment on the concerns raised by the territorial authority. In an email to the Department dated 18 December 2006 the expert:

- acknowledged that the wind zone is low
- noted that the 2^{o} roof pitch was within the recommended thresholds
- stated that the membrane roof cladding (in this case, a liquid applied membrane) appears to have been installed in accordance with the manufacturer's instructions and would have been confirmed by the building certifier when it noted that it was OK to fix the cladding.
- noted that the window sill details are satisfactory and matched the existing sills
- considered that the eave details that are in place will prevent water entry.

6.7 With respect to the apparent lack of producer statements for the construction review of the engineered-designed elements, this does not appear to be a requirement of the original building consent therefore the lack of such statements cannot be held to be a matter for non-compliance.

7 Evaluation for code compliance

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[4], 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.

[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.

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[5] (for example, Determination 2004/1) 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 addition:

- is built in a low wind zone
- is three storeys high
- is relatively simple in plan and form but has some complex features
- has no decks or balconies
- has external wall framing that may not be treated, so providing little resistance to the onset of decay if the framing absorbs and retains moisture.

7.2.2 When evaluated using the E2/AS1 risk matrix, the south and west elevations of the addition 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 external claddings appear to have been installed in accordance with good trade practice. Apart from high landscaping at one corner, which can easily be rectified, there are no defects in the exterior wall and roof cladding.

7.3.2 Notwithstanding the fact that the claddings are fixed directly to the timber framing, thus limiting drainage and ventilation behind the cladding, I have noted that the claddings are installed to good trade practice, which helps the performance of the claddings in this particular case and assists the building to comply with the

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

weathertightness and durability provisions of the Building Code.

8 Discussion

8.1 I consider that the expert's report establishes there is no evidence of external moisture entering the building, and accordingly, that its cladding complies with clause E2 at this time.

8.2 The building is also required to comply 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. Once the ground level at the southwest corner has been lowered to comply with E2/AS1, I am of the opinion that the house will also comply with the durability requirements of clause B2 "Durability".

8.3 The territorial authority queried the distance of the extension to the boundary. The expert was unable to locate the boundary as there is no fence or other boundary indicator and the ground slopes steeply away to the house on the adjoining property. The expert considered this when evaluating the distance for fire separation.

The consent documents were drawn showing the extension 750mm from the boundary. However, as built, without eaves and the spouting fixed to the fascia board, the clearance would exceed 1 metre and would therefore comply with the external separation requirements of C/AS1.

8.4 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.

8.5 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.

8.6 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 determine that once the ground level at the southwest corner has been lowered so that the finished ground is at the appropriate distance from the cladding, the building will comply with the requirements of the Building Code, and the territorial authority should then issue a code compliance certificate.

Signed for and on behalf of the Chief Executive of the Department of Building and Housing on 26 April 2007.

John Gardiner
Determinations Manager