Determination 2005/147

Addendum to Determination 2004/77

Second refusal of a code compliance certificate for a house with a monolithic cladding system at 29A Sprott Road, Kohimarama

Applicant: Mr. S. Gupta (the owner)

Territorial authority: Auckland City Council

Site address: 29A Sprott Road, Kohimarama, Auckland

1. The matter to be determined

1.1 This is a Determination under Part 3 Sub part 1 of the Building Act 2004 ("the Act"), made under due authorisation by me, John Gardiner, Determinations Manager, Department of Building and Housing, for and on behalf of the Chief Executive of that Department. The application for Determination arises because the territorial authority has refused to issue a code compliance certificate for this house. This house has been the subject of an earlier Determination, Determination 2004/77 ("the first Determination"). Subsequently, the owner has carried out work recommended in that Determination. I must determine whether, in light of the work that has been carried out, the house now complies with clauses E2 and B2 of the New Zealand Building Code.

2. Sequence of events

- 2.1 On 26 November 2004 the Building Industry Authority issued the first Determination, which identified faults in the building, and confirmed the territorial authority's refusal to issue a code compliance certificate.
- 2.2 On 21 January 2005 the territorial authority issued a notice to rectify which provided a list of defects to be remedied, most of which were subsequently completed.
- 2.3 On 10 May 2005, following a series of letters and a meeting, the territorial authority wrote to the owner noting that the only two matters remaining in dispute were the external ground clearances and the lack of plaster coating behind some fascia boards.

On 10 May 2005 the owner applied for this Determination. Included with the owner's submission was a copy of a letter from the coating manufacturer, "Putz Technik", confirming that the lack of plaster behind the fascias complied with trade practice at the time of installation and stating that no problems had been reported as being caused by this practice.

3. The expert's report

- 3.1 The Department commissioned the expert engaged for the first Determination to inspect the disputed items. The expert inspected these on 23 June 2005 and, in an addendum report dated 26 June 2005, noted that ground levels had been lowered in three areas since his previous inspection and that the owner had installed a moisture monitoring system.
- 3.2 The expert noted the following items in regard to the ground clearances.
 - The previous inspection in June 2004 noted areas of inadequate clearance around the garage, and recorded moisture contents of 17.6%, 19.8% and 20.8%
 - The ground clearances around the garage had since been improved, but still do not all comply with E2/AS1. However, there was currently no evidence of moisture penetration in these areas (i.e. code requirements are being met at this location).
 - In March 2005, the moisture monitoring system recorded probe readings from the garage ranging from 14.2% to 17.6%. While these are all lower than the previous readings taken in June 2004, any comparison between the two sets of readings must be made with caution. That is because the moisture readings recorded in June 2004 by the expert appointed by the Building Industry Authority were obtained by using a portable moisture meter in "invasive" mode, while the readings recorded in May 2005 were obtained from probes permanently installed in the timber framing of the building. The technical differences between the two devices and possibly between their calibrations makes any absolute comparison uncertain. Nonetheless, I observe that there was some correlation between the results of the two measuring techniques so far as relative moisture content was concerned.
- 3.3 The expert noted the following items in regard to the fascia boards.
 - No elevated readings were recorded from non-invasive testing, and there was no sign of lime staining to the plaster coating that would indicate moisture entry.
 - The fascias are flashed at the top, and the board depth provides an extended overlap to backing sheets, reducing the risk of water reaching vulnerable joints.

- Some added assurance could be gained by installing a flashing, drip or sealant at the bottom edges of the barges and fascias to protect against capillary action.
- Copies of the expert's report were provided to each of the parties. On 20 September 2005 the owner responded with photographs of a timber drip edge to the fascias installed, apparently with the approval of the territorial authority, to overlap the top of the plaster coating by 40 mm.

4. Discussion

4.1 Ground clearances

- 4.1.1 Based on the assumption that the probe readings taken in March 2005 from the moisture monitoring system are reasonably accurate, the lowering of ground levels to improve the clearances between the cladding and the ground appears to have been effective in preventing water penetration, as moisture levels in framing have fallen to an acceptable level since those reported in the first Determination.
- 4.1.2 The owner submitted a further set of moisture readings taken in September 2005 from the permanently installed probes (see my comments in paragraph 2.3 above). These also indicated moisture levels were within acceptable limits at the time of measurement.
- 4.1.3 Although some areas around the garage still do not comply with E2/AS1, the improved clearances now provided appear to provide adequate weathertightness and meet the Building Code requirements as alternative solutions.

4.2 Fascia boards

- 4.2.1 Although the plaster coating does not extend behind fascias, the board depth and top flashings afford some protection, as do the gutters, which have been further improved with the recent addition of a timber drip edge that overlaps the top of the cladding.
- 4.2.2 I consider that the fascias now provide adequate weathertightness.

5. The decision

- 5.1 In accordance with section 188 of the Act, I hereby determine that the ground clearances and fascias, as provided in this building, now comply with clause E2 and clause B2 of the Building Code.
- 5.2 I therefore reverse the territorial authority's decision to refuse to issue the code compliance certificate.

Signed for and on behalf of the Chief Executive of the Department of Building and Housing on 11 November 2005

John Gardiner **Determinations Manager**