

Determination 2009/33

Determination regarding the code compliance of a 5-year-old house with monolithic cladding at 331C Tuhimata Road, RD3, Drury



1. The matters 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, E and D Pederson (“the applicants”), acting through a building consultant (“the consultant”) and the other party is the Franklin District Council (“the authority”), carrying out its duties as a territorial authority or building consent authority.
- 1.2 This determination arises from the decision of the authority to refuse to issue a code compliance certificate for a 5-year-old house because it was not satisfied that it complied with certain clauses of the Building Code² (First Schedule, Building Regulations 1992).

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.

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.

1.3 The matters for determination are:

1.3.1 Matter 1: The cladding

Whether the cladding as installed on the house (“the cladding”) complies with Clause B2 Durability and Clause E2 External Moisture of the Building Code. By “the cladding as installed” I mean the components of the systems (such as the backing materials, the plaster, the flashings and the coatings), as well as the way the components have been installed and work together. (I consider this matter in paragraph 6.)

1.3.2 Matter 2: The durability considerations

Whether the building elements comply with Clause B2 Durability of the Building Code, taking into account the age of the building work. (I consider this matter in paragraph 8.)

1.4 In a letter dated 8 July 2005 to the applicants regarding the code compliance certificate, the authority raised various other matters which it considered could be attended to by the applicants (refer paragraph 3.9), and these are therefore not considered further in this determination.

1.5 In making my decisions, I have considered the submissions of the parties, the report of the 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.

2. The building work

2.1 The building work consists of a large house and attached garage that is situated on an excavated rural site, which the consultant and the specification states is in a high wind zone for the purposes of NZS 3604³. Construction is generally conventional light timber frame, and includes concrete slabs, concrete block foundations and retaining walls, monolithic cladding to most walls and aluminium windows.

2.2 The building is fairly simple in plan, with the house attached to the garage with a flat-roofed link. Each structure has a 45° pitch profiled metal gabled roof, with the house 2-storeys in part and including a small gable to the north over the kitchen/dining area. The roofs have eaves and verge projections of 300mm.

2.3 The house roof accommodates an upper level master bedroom and ensuite at the western end, with a 35° pitch raised roof (“the upper level dormer”) to the southern slope. A small 20° pitch roof (“the small dormer”) extends to the south above the living room. The eastern end of the house has a skillion roof, with a small mezzanine study in the apex at the eastern end of the living room.

2.4 The house has two small upper decks, which have timber slat floors and open metal and glass balustrades. The apex portion of the west roof gable projects out to form a canopy over the upper bedroom deck. At the east, the centre portion of the gable end

³ New Zealand Standard NZS 3604:1999 Timber Framed Buildings

wall projects to accommodate the mezzanine study area, with the roof extending as a canopy over the deck. A timber pergola follows the line of the roof and slopes down to lower levels at the north and south. The canopies, decks and the pergola are supported on timber poles.

- 2.5 The expert provided evidence from a biodeterioration laboratory (“the laboratory”) that timber samples extracted from the wall framing were not treated. Given the date of the framing installation in 2002 and the lack of other evidence, I consider that the wall framing is not treated.

2.6 The wall claddings

- 2.6.1 The monolithic cladding to most of the walls is a system described as solid plaster over a non-rigid backing. In this instance it consists of metal-reinforced 25mm thick solid plaster applied over a building wrap and fixed a through H3 treated cavity battens and the building wrap to the framing timbers. The plaster is finished with a flexible paint coating.
- 2.6.2 The solid plaster to the main gable end walls on the east elevation is on a rigid backing of plywood, which the laboratory has confirmed as being one layer of untreated and one of H3 treated plywood. In this area, timber boards have been recessed into the plaster to provide a “tudor style” appearance.
- 2.6.3 From either side of the small dormer, schist wall cladding extends around the south east and south west corners of the living room. The cladding consists of prefabricated panels of schist adhered to fibre-cement backing sheets that are coated with liquid-applied waterproofing compound and installed over cavity battens.

3. Background

- 3.1 The authority issued a building consent for the house (No. 941206) on 19 December 2001, under the Building Act 1991.
- 3.2 The consent was based on a building certificate issued by A1 Building Certifiers Ltd (“the building certifier”) on 10 December 2001. The attached scope of engagement noted that inspections would be undertaken up to pre-line stage, with a second certifier completing the balance of inspections.
- 3.3 Although some of the inspection records are not clear, the building certifier appears to have carried out the following inspections:
- footings on 10 January 2002 (which passed)
 - slab and under-slab plumbing on 8 February 2002 (which passed)
 - chimney blockwork on 23 January, 20 February and 13 March 2002 (which passed)
 - roof framing on 9 May 2002 (which passed)
 - pre-plaster on 13 June 2002 (which passed)
 - pre-line inspections on 11 December 2002 (which appears to have passed)

- bracing on 13 January 2003 (which appears to have passed).
- 3.4 The remaining inspections were to be undertaken by Nationwide Building Certifiers Ltd (“the second building certifier”). However, I note that the scope of the certifier’s approval was amended on 1 January 2003, when limitations were imposed with regard to compliance with E2/AS1. Those limits would have precluded the second building certifier from certifying the solid plaster cladding to this house.
- 3.5 I have seen no records of any inspections carried out during 2003. According to a producer statement provided by the plumber on 2 February 2004, pressure testing was carried out on the water supply pipework in accordance with Clause G12/VM1 and AS3500.1:1992.
- 3.6 The second building certifier recorded only one inspection, which was of the drainage, septic tank and effluent field on 10 March 2004. The certifier’s approval as a certifier subsequently expired on 30 December 2004 and the project was passed to the authority for completion of inspections.
- 3.7 Although the building appears to have been substantially completed during 2003, final finishing work seems to have continued over the next few years and the applicants did not request a final inspection until 2005.
- 3.8 The authority carried out a final inspection on 29 March 2005 and identified a number of outstanding items. A reinspection was carried out on 20 April 2005, and the record notes that two of the items were ‘not satisfied’. An additional reinspection was carried out on 10 May 2005 to ‘ascertain the condition of this dwelling’, and the photographs taken by the authority at that date show that some parts of the exterior of the house were still incomplete.
- 3.9 In a letter to the applicants dated 8 July 2005, the authority noted that the two building certifiers’ inspection records showed that some inspections and documentation were not completed, in particular the inspections of the stucco cladding. The authority also listed 5 items as ‘other matters requiring clarification or rectification’, which it considered could be ‘readily attended to and organised by yourselves’ (refer paragraph 1.4). The authority noted that defects had been identified that raised doubts that the stucco complied with Clauses B2 and E2, and suggested that a determination be sought as:
- The stucco cladding is a more difficult matter. Unless there is some way of demonstrating its compliance to Council there will always be some doubt.
- 3.10 In August 2008, the applicants engaged the consultant to assist in the application for a determination, which was received by the Department on 20 January 2009.

4. The submissions

- 4.1 The application included a statement by the consultant, which summarised the history of the project.
- 4.2 The applicants forwarded copies of:
- the building consent and building certificate

- the drawings and specification
- the building certifiers' inspection records
- the letter from the authority dated 8 July 2005
- various producer statements and other information.

4.3 As part of its submission dated 10 February 2009, in response to the application, the authority provided an undated draft notice to fix for the building work. Although the notice had not been issued, the authority noted that it provided valuable information in relation to its concerns about the stucco cladding. These concerns included (in summary):

- signs of cracking
- incomplete plaster in one area
- decking butting against the cladding
- the lack of a drained ventilated cavity
- the lack of assurance that the cladding is installed to manufacturer's recommendations
- the lack of assurance that windows, doors and other penetrations are adequately weatherproofed
- inadequate fixing of downpipes
- inadequate head flashings to some windows
- lack of assurance that the final plaster system is fit for purpose.

4.4 The authority also raised the issue of the age of the building consent, noting:

We suspect that the building was substantially completed on or about 1st July 2002 and would request that the period of durability under clause B2 of the Building Code commence from that date for all materials used in the building if a code compliance certificate were to be ultimately granted.

4.5 I note that the draft notice to fix also included items relating to G12 Piped Services, G13 Sanitary Services and E3 Internal Moisture. It appears that these items were rectified, but I am not aware of any further correspondence between the parties.

4.6 The authority forwarded copies of:

- the record of the final inspections
- the draft notice to fix
- photographs taken during the final inspection on 10 May 2005.

4.7 A copy of the submissions were provided to the parties. In his response to the expert's report (refer paragraph 5.8), the consultant noted that he had met with the applicants, and did not agree with the authority's opinion on the substantial completion of the house, stating:

It is suggested that the period for Durability runs from the date of occupancy being 1 May 2004 after the carpet was laid. The dwelling could not be determined as

completed and nor could a Code Compliance Certificate have been issued prior to the installation of any sanitary drainage. This was approved by inspection on 10th March 2004.

- 4.8 A draft determination was issued to the parties for comment on 16 April 2009. The draft was issued to give the parties an opportunity to check the accuracy of the facts and note any errors or omissions, and for the parties to agree a date when the house complied with Building Code Clause B2 Durability.
- 4.9 Both parties accepted the draft and agreed that compliance with B2 was achieved on 1 May 2004.

5. The expert's report

5.1 As mentioned in paragraph 1.5, 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 March 2009 and provided a report that was completed on 20 March 2009.

5.2 The expert noted that the building generally appeared to accord with the drawings provided, except that most of the cladding incorporated a 25mm cavity in lieu of being direct-fixed to the framing as shown in the drawings.

5.3 The solid plaster

5.3.1 The expert noted that the plaster generally appeared to be “of a good standard”, apart from the items outlined in paragraph 5.6, with the “overall finish and paintwork of an acceptable standard”.

5.3.2 The expert noted that the plaster thickness is about 25mm, with the mesh embedded within the plaster in accordance with NZS 4251:1999⁴. Destructive testing also confirmed that tape is installed behind the outer layer of building wrap to limit deflection and construction photographs indicated that framing appears to be at 400mm centres, which will also limit deflection.

5.3.3 The expert noted that control joints had been installed, and scraped away a small section of sealant to observe that the 8mm joint was installed in accordance with NZS 4251, with a break to the mesh, a backing rod, and flexible sealant. I accept that the joint exposed is typical of other control joints in the stucco walls.

5.4 Windows

5.4.1 The expert noted that most of the windows in the stucco are recessed, with metal head flashings that have a “bell” overhang cast into the plaster above. Sloping brick sills are installed, with sill flashings that extend over the upper part of the brick. The expert removed a small section of cladding at the jamb to sill junction of an east window, and noted jamb flashings. I accept that the exposed junction is typical of similar locations elsewhere in the stucco walls of the house.

⁴ Code of practice for solid plastering

5.4.2 The window in the small dormer is recessed within a decorative plaster border, while the windows in the upper level dormer and the schist cladding are face-fixed, with no jamb or sill flashings.

5.5 Moisture testing and timber sampling

5.5.1 The expert inspected the interior of the house, taking non-invasive moisture readings internally, and no elevated readings were noted, although moisture staining was observed on the timber floor adjacent to the upper decks. (I note that the consultant has reported that this is the result of condensation from the glass doors to the deck.)

5.5.2 The expert removed 7 timber samples and forwarded them to a biodeterioration laboratory for analysis of treatment and decay. The following samples were taken (sample numbers are shown in brackets):

- a batten beneath the apron flashing to the south small dormer window (1)
- framing beneath the apron flashing to the south small dormer window (2)
- a bottom plate at the bottom of stucco to the south side entrance door (3)
- a bottom plate at the bottom of schist cladding to the living room (4)
- plywood backing to direct fixed stucco to the east elevation (5)
- framing at the sill to jamb junction of the lower west bathroom window (6)
- a bottom plate to the east upper deck (7)

5.5.3 The laboratory results confirmed that:

- the cavity batten sample (1) was probably H3.1, and had active early soft decay
- the framing samples (2 to 4 and 6 to 7) were untreated, and had no established or incipient decay although fungal growths indicated exposure to moisture
- the plywood backing sheet sample (6) comprised one layer of H3 treated and one that was untreated, and had no established or incipient decay although fungal growth indicated exposure to moisture.

5.5.4 The expert took 15 invasive moisture readings through the cladding at areas considered at risk, and three of these were elevated as follows:

- 20% at the west jamb to sill junction of the small south dormer window
- 23% below the west apron flashing to the small south dormer window
- 24% to the bottom plate at the south side entrance.

5.5.5 Moisture levels above 18% generally indicate that external moisture is entering the structure and further investigation is required. I note that the testing was undertaken at the end of summer, and moisture levels are likely to be higher during winter periods.

5.5.6 The expert also noted that the results of the timber sampling (refer paragraph 5.5.3) confirmed fungal growth which indicated that some framing currently with low moisture levels had been exposed to moisture in the past (samples 5 to 7).

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

- there are some isolated cracks to the stucco cladding
- the bottom of the stucco lacks drip edges and there is no clearance from the paving or ground in some areas
- the bottom of the cavity to the stucco has been closed with an aluminium angle that has no allowance for drainage from the cavity
- the cavity above the windows is closed under the bell in the plaster, with no drip edge and no allowance for drainage
- the cavity to the schist panels is blocked with a stone sill that prevents drainage
- the direct-fixed east stucco cladding has timber plates set into the plaster, and relies on sealants for weathertightness
- the pergola beams to the east elevation penetrate the stucco, with no flashings
- the apron flashings to the small dormer to the south wall of the living room lack adequate kickouts at the bottom, and moisture penetration is apparent
- the top of the border around the small dormer window butts against the timber fascia, with no flashing
- the sill flashing to the bottom of the dormer window border does not extend to the face of the plaster, and moisture is apparent at the sill to jamb junction
- there are unsealed gaps at the flanges of the face-fixed window in the schist
- although there are flashings installed at the deck to wall junctions, there is no clearance from the bottom of the stucco to the horizontal part of the flashing
- there are no spreaders installed to downpipes discharging onto lower roofs
- at the junction of the cladding at the south west corner of the house with the adjacent link roof, the timber cavity battens are exposed and have been saturated by the discharge from an adjacent downpipe.

5.7 A copy of the expert's report was provided to the parties on 24 March 2009.

5.8 The consultant responded to the expert's report in a letter to the Department dated 29 March 2009, suggesting a completion date (refer paragraph 4.7) and included the following summarised comments:

- The bell cast above the windows is supported by a powder-coated aluminium angle.
- The property is in a high wind zone.
- Water stains to the timber floor result from condensation off the glass doors.
- The applicants have proposed that the gable wall areas with embedded timber will be re-clad with timber shingles over treated plywood.

5.9 The authority responded to the expert's report in a letter to the Department dated 26 March 2009, and included the following summarised comments:

- The inspection was undertaken during the dry summer period, and moisture levels are likely to be much higher in wet winter periods.
- The aluminium angle under the bell cast in the stucco will react to the plaster if it is not protected.

Matter 1: The cladding

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 Solutions⁵, 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:

- 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 one or more other provisions to compensate for that in order to comply with the Building Code.

6.2 Evaluation of the building for E2 and B2 Compliance

6.2.1 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 determinations⁶ (for example, Determination 2004/1) relating to cladding and these factors are also used in the evaluation process.

6.2.2 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.

6.3 Weathertightness risk

6.3.1 This house has the following environmental and design features which influence its weathertightness risk profile:

⁵ 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.

⁶ Copies of all determinations issued by the Department can be obtained from the Department's website.

Increasing risk

- the house is in a high wind zone
- the house is 2-storey high in part
- although fairly simple in plan, the house has a fairly complex roof form with dormer windows, varying slopes and complex junctions
- although mosts walls include a cavity, one wall has monolithic cladding fixed directly to the framing
- there are two timber decks attached to the upper level
- a timber pergola is fixed directly to the walls
- there are limited eaves and verge projections to shelter the walls
- the external wall framing is not treated to a level effective in resisting decay if it absorbs and retains moisture.

6.3.2 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. The resulting level of risk can range from 'low' to 'very high'. The risk level is applied to determine what claddings can be used on a building in order to comply with E2/AS1. Higher levels of risk will require more rigorous weatherproof detailing; for example, a high risk level is likely to require a particular type of cladding to be installed over a drained cavity.

6.3.3 When evaluated using the E2/AS1 risk matrix, the weathertightness features outlined in paragraph 6.3.1 show that two elevations demonstrate a moderate weathertightness risk rating and two elevations a high risk rating.

6.3.4 I note that, although a drained cavity is now required by E2/AS1 for solid plaster cladding at all risk levels, this was not a requirement at the time the house was constructed. I also note that a high risk east elevation does not incorporate a cavity, while the solid plaster cladding to the remaining elevations is installed over a cavity which is not drained.

6.4 Weathertightness performance: exterior cladding

6.4.1 Generally the cladding appears to have been installed in accordance with good trade practice. However, taking account of the expert's report, I conclude that remedial work is necessary in respect of:

- the cracks in the stucco cladding
- the lack of drip edges and clearances from the bottom of the cladding to the paving or ground in some areas
- the lack of provision for drainage from the cavities, at the bottom of the cladding and above the windows
- the timber plates set into the direct-fixed stucco to the east gable end
- the unflushed penetrations of the pergola beams through the cladding
- the bottom of the apron flashings to the small south dormer

- the inadequate dormer window sill flashing and the unflashed top of the border
- the lack of sealing to the window in the schist cladding
- the lack of clearance of the stucco above the deck junction flashings
- the lack of spreaders to the upper downpipes
- the inadequate junction between the upper cladding and the link membrane, with exposed timber or battens apparent.

6.4.2 Notwithstanding the fact that, on one wall, the solid plaster cladding is fixed directly to the timber framing, thus limiting drainage and ventilation behind the cladding, I have noted the following compensating factors that assist the performance of some of the cladding in this particular case:

- Apart from the noted exceptions the cladding is installed to good trade practice and in accordance with NZS 4251:1991
- The cladding is well-maintained and in good condition.
- Moisture penetration appears to be limited to areas where defects have been identified.

6.4.3 I consider that these factors help compensate for the lack of a drained cavity to that wall and can assist the building to comply with the weathertightness and durability provisions of the Building Code.

7. Discussion

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

7.2 In addition, the building work 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 house to remain weathertight. Because the cladding faults on the house may allow the ingress of moisture in the future, the building work does not comply with the durability requirements of Clause B2.

7.3 Because the faults identified with the cladding occur in discrete areas, I am able to conclude that satisfactory rectification of the items outlined in paragraph 6.4.1 will result in the house being brought into compliance with Clauses B2 and E2.

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

7.5 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).

Matter 2: The durability considerations

8. Discussion

8.1 The authority has concerns about the durability, and hence the compliance with the Building Code, of certain elements of the building taking into consideration the protracted construction of the building work between 2001 and 2005.

8.2 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).

8.3 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.

8.4 In this case the delay between the completion of most of the building work in 2003 and the applicant’s request for a code compliance certificate has raised concerns that various elements of the building are now well through or beyond 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.

8.5 The appropriate date for durability

8.5.1 I note that the authority has proposed a date of 1 July 2002. However, the records outlined in paragraph 3.3 show that pre-line and bracing inspections were not carried out until December 2002 and January 2003 respectively, which indicates that most of the interior work is likely to have been carried out during 2003.

8.5.2 I also note that the applicants have noted that the drainage was not inspected until 10 March 2004 and have proposed a date of 1 May 2004. However, I note that the inspection date does not necessarily reflect a substantial completion date of the house.

8.5.3 It is not disputed, and I am therefore satisfied, that all the building elements complied with Clause B2 on 1 May 2004. This date has been agreed between the parties, refer paragraph 4.6.

- 8.6 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.
- 8.7 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 all 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 in 2003.
- 8.8 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.

9. What is to be done now?

- 9.1 A notice to fix should be issued that requires the owner to bring the house into compliance with the Building Code, identifying the items listed in paragraph 6.4.1 and referring to any further defects that might be discovered in the course of investigation and rectification, but not specifying how those defects are to be fixed. It is not for the notice to fix to stipulate directly how the defects are to be remedied and the house brought to compliance with the Building Code. That is a matter for the owner to propose and for the authority to accept or reject.
- 9.2 I would suggest that the parties adopt the following process to meet the requirements of paragraph 9.1. Initially, the authority should issue the notice to fix. The owner should then produce a response to this in the form of a detailed proposal, based on further investigation as necessary and 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.
- 9.3 I note that the expert has identified some variations between the consent drawings and the house as constructed, and I leave that matter to the authority to resolve with the owners as it considers appropriate.
- 9.4 Once the matters set out in paragraph 6.4.1 have been rectified to its satisfaction, the authority may issue a code compliance certificate in respect of the building consent as amended.

10. The decision

- 10.1 In accordance with section 188 of the Building Act 2004, I hereby determine that the house does not comply with Clauses E2 and B2 of the Building Code, and

accordingly confirm the authority's decision to refuse to issue a code compliance certificate.

10.2 I also determine that:

- (a) all the building elements installed in the house, apart from the items that are to be rectified as described in this determination, complied with Clause B2 on 1 May 2004
- (b) 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 1 May 2004 instead of from the time of issue of the code compliance certificate for all the building elements, except the items to be rectified as set out in paragraph 6.4.1 of Determination 2009/33.

Signed for and on behalf of the Chief Executive of the Department of Building and Housing on 11 May 2009.

John Gardiner
Manager Determinations