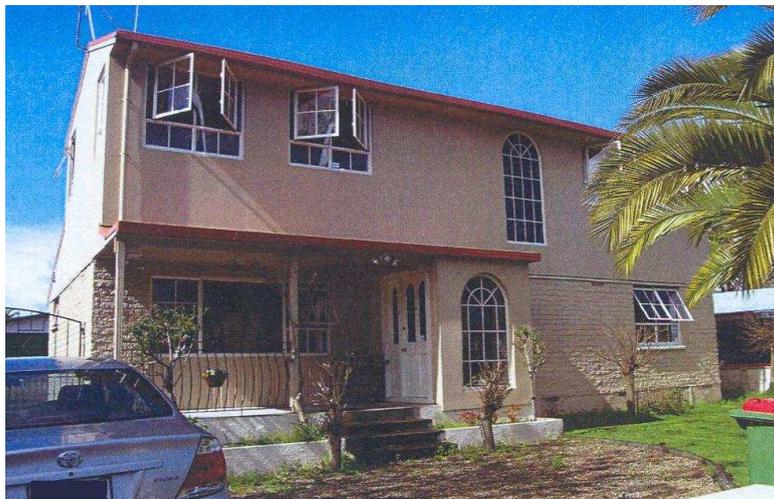




## Determination 2010/127

### Refusal to issue a code compliance certificate for a 6-year-old addition to a house at 4 Greta Street, Glenview, Hamilton



#### 1. The matters 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, 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, M and S Rodrigues (“the applicants”), and the other party is the Hamilton City 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 6-year-old addition to a house, because it is not satisfied that the building work complies with certain clauses<sup>2</sup> of the Building Code (First Schedule, Building Regulations 1992). The authority’s primary concerns about the compliance of the building work relate to its age and to the weathertightness of the cladding.

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<sup>1</sup> The Building Act, Building Code, compliance documents, past determinations and guidance documents issued by the Department are all available at [www.dbh.govt.nz](http://www.dbh.govt.nz) or by contacting the Department on 0800 242 243.

<sup>2</sup> 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 matter to be determined<sup>3</sup> is therefore whether the authority was correct to refuse to issue a code compliance certificate. In deciding this, I must consider:

**1.3.1 Matter 1: The external envelope**

Whether the external building envelope of the addition complies with Clause B2 Durability and Clause E2 External Moisture of the Building Code. The building envelope includes the components of the systems (such as the monolithic cladding, the windows, the roof cladding and the flashings), as well as the way the components have been installed and work together. (I consider this in paragraph 6.)

**1.3.2 Matter 2: Other clause requirements**

Whether the addition complies with the remaining relevant clauses of the Building Code. (I consider this in paragraph 7.)

**1.3.3 Matter 3: The durability considerations**

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

1.4 In making my decisions, I have considered the applicant's submission, the report of the expert commissioned by the Department to advise on this dispute ("the expert"), and other evidence in this matter.

## **2. The building work**

2.1 The building work considered in this determination consists of the addition of a new upper floor ("the addition") to an existing detached house on a flat site in a medium wind zone for the purposes of NZS 3604<sup>4</sup>. The street frontage to the northwest is referred to as "north" in the expert's report and within this determination.

### **2.2 The existing house**

2.2.1 The original 1960's house was a simple single-storey house ("the original house"), with a rectangular plan, timber-framed walls and subfloor, block veneer wall cladding, aluminium windows and a simple gable roof. A partly recessed entry porch to the north has a concrete floor and a low-pitched roof.

2.2.2 Various alterations were carried out in 1975 and during the late 1990's. These resulted in two flat-roofed extensions to the south of the original house and, prior to the subject addition, the house provided four bedrooms and a rumpus room.

### **2.3 The addition**

2.3.1 The alterations carried out in 2004 provided two additional bedrooms and a bathroom in a new upper level, with a staircase replacing a former ground floor bedroom. The new storey is above the lounge and bedroom areas in the front section of the existing house. Construction is conventional light timber frame with monolithic wall claddings, aluminium windows and a corrugated steel roof. The addition is assessed as having a moderate weathertightness risk (see paragraph 6.2).

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<sup>3</sup> Under sections 177(1)(b) and 177(2)(d) of the Act

<sup>4</sup> New Zealand Standard NZS 3604:1999 Timber Framed Buildings

- 2.3.2 The new 25° pitch roof is a two-level gable, which is raised in the centre above the bathroom. The remaining sections of the original roof form lean-tos against the upper south walls, on either side of the bathroom projection. The roofs have eaves projections of about 600mm and no verge projections above the east and west walls.
- 2.3.3 The cladding system to the upper walls and to a panel on the north porch is a form of monolithic cladding system known as EIFS<sup>5</sup>. The proprietary EIFS system consists of 40mm polystyrene backing sheets fixed over polystyrene battens to the framing over the building wrap and finished with a proprietary coating system. The 20mm thick grooved polystyrene battens form a cavity between the cladding sheets and the building wrap. The cladding system includes purpose-made flashings to windows, edges and other junctions.
- 2.4 Given its age, I consider that the original house framing is likely to be borically treated. The specification for the addition called for new framing to be 'H1' treated, and the expert was able to confirm timber markings at a wall cut-out. Given the date of construction in 2004, I consider that the wall framing associated with the addition to this house is likely to be treated to a level that will provide resistance to fungal decay.

### 3. Background

- 3.1 The authority issued a building consent for the addition (No. 2003/7395) on 9 October 2003 under the Building Act 1991.
- 3.2 The authority carried out various inspections during construction in 2004, including a preline inspection on 23 March, a postline inspection on 26 March and an inspection of the exterior cladding on 13 April. A final inspection was carried out on 26 August 2004 and the inspection record identified outstanding items. No further inspections were carried out and the house was sold in July 2005 without a code compliance certificate having been issued.
- 3.3 In a letter to the former owners dated 29 May 2006, the authority noted that it had not been advised whether building work was complete and ready for a final inspection. Unless contacted, the authority would note that this consent had not received a code compliance certificate, which 'could affect the sale of this property in future, as this will be included on a LIM for prospective purchasers'.
- 3.4 At the request of the former owners, the authority re-inspected the addition on 19 June and 14 July 2006 and the final inspection record shows all outstanding items (refer paragraph 3.2) ticked off as completed. Despite all physical work being completed, some of the required documentation was still outstanding, so no code compliance certificate was issued. The inspection record shows the plumbing and drains inspections signed off as completed on '18/12/09'. At some stage an undated note was added to the authority's inspection summary stating 'CCC not to be issued due to age'.

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<sup>5</sup> Exterior Insulation and Finish System

### 3.5 The authority's refusal

3.5.1 While selling the house, the former owners again sought a code compliance certificate for the addition and the authority responded in a letter dated 28 January 2010. The authority stated that it could not issue a code compliance certificate as it:

...cannot be satisfied on reasonable grounds that the provisions of the building code for:

1. Durability in terms of B2 and/or
2. Weathertightness in terms of E2 and/or
3. Other appropriate provisions of the building code

have been met and maintained in the period since the issue of the building consent.

3.5.2 The authority stated that the former owners had the option to either apply for a determination or obtain a 'building report from an independent expert' to 'file against the property register'.

3.6 The applicants purchased the house without a code compliance certificate, and the Department received an application for a determination on 25 August 2010.

## 4. The submissions

4.1 In a letter to the Department dated 23 August 2010, the applicants set out the background to the dispute; describing the history of the house, the authority's inspections of the addition and noting that their pre-purchase report had confirmed the house was well maintained and in good condition. The applicants concluded:

While we fully understand Council's stand with regards to their rules in force, we do feel that we have a case for seeking Determination by [the Department] given that this is a well maintained house which has been constructed, modified and extended to high qualities of workmanship, under the continuing strict and professional supervision of the Council.

4.2 The applicants provided copies of:

- the consent drawings
- the building consent
- some correspondence from the authority
- extracts from the LIM report
- various producer statements, certificates and other information.

4.3 In a letter to the Department dated 28 May 2010, the authority asked for the determination to consider amending the start of the durability provisions to the date of occupation of the addition. The authority gave its reasons for refusing to issue a code compliance certificate, stating:

Given the length of time that has elapsed since the construction of the dwelling [the authority] will not issue a Code Compliance Certificate for the following reasons. [The authority] cannot be satisfied on reasonable ground that the building will meet the provisions of the Building Code for:

Durability in terms of B2

Weathertightness in terms of E2

4.4 A draft determination was issued to the parties on 5 November 2010. The draft was issued for comment and for the parties to agree a date when the addition complied with Building Code Clause B2 Durability. The applicants accepted the draft without comment on 12 November 2010

4.5 The authority generally accepted the draft determination in a letter to the Department dated 25 November 2010. However, the authority advised that contrary to the draft determination's contention that it had not carried out a site inspection, it noted that:

the plumbing and drainage inspection completion box is signed and dated on the 18<sup>th</sup> December 2009. At which time an inspection was requested by the owner and subsequently carried out, it was also at this time the note was placed at the bottom of the [inspection record] confirming a [code compliance certificate] would not be issued due to age.

The authority also made several non-contentious comments. I have taken the submission into account and amended the determination as appropriate.

4.6 The parties agreed that compliance with Clause B2, apart from the items that are to be rectified, was achieved on 26 August 2004, being the date of the first final inspection.

## **5. The expert's report**

5.1 As mentioned in paragraph 1.4, I engaged an independent expert to assist me. The expert is a member of the New Zealand Institute of Architects. The expert inspected the addition on 15 and 24 September 2010 and provided a report on 11 October 2010.

### **5.2 General**

5.2.1 The expert noted that the addition generally accorded with the consent drawings, except that the specified 60mm direct-fixed EIFS cladding had been replaced with 40mm EIFS over a drained cavity.

5.2.2 The expert noted that the overall construction quality appeared to be good, with the exterior claddings 'well finished and aligned' and the ends of the apron flashings 'correctly installed with a well constructed kick-out and stop end detail'. The expert also noted that the house appeared to be well maintained.

### **5.3 Windows**

5.3.1 The expert removed a section of cladding under the sill to jamb junction of the curved-head stairwell junction, confirming that there was no sign of moisture penetration into the underlying cavity and boundary joist. No sign of moisture was found when a section of lining was removed from the bottom of the exposed east gable end wall beneath the sill to jamb junction of a bedroom window

5.3.2 The windows have metal head flashings and are recessed by the EIFS thickness, with sills sloped and texture-coated. Taking account of the cavity and the expert's observations at the cut-outs, I accept that the window installation is satisfactory.

## 5.4 Moisture levels

- 5.4.1 The expert inspected the interior of the addition and took non-invasive moisture readings, noting no evidence of moisture penetration.
- 5.4.2 The expert took invasive moisture readings of the framing at the cut-out below the stairwell window and through the lining of the exposed east gable wall; recording moisture levels of 9% and 15% respectively. Given the lack of moisture penetration at these high risk locations, the expert did not consider it necessary to carry out further testing.
- 5.5 Commenting specifically on the external envelope, the expert noted that:
- there are no spreaders installed to the downpipes discharging from the upper roof onto the north porch roof and the south lean-to roofs
  - there are two minor cracks in the EIFS to the north wall.
- 5.6 Although the 13 metre north wall does not require the installation of vertical control joints to comply with the manufacturer's instructions, the expert suggested installing these below the stairwell window to cater for future movement and cracking.

## 5.7 Compliance with the relevant code clauses

- 5.7.1 The expert assessed the addition for compliance with the other relevant clauses of the Building Code and made the following comments:

### **B1 Structure**

- Inspection records note satisfactory inspections of the upgraded foundations for the new upper floor and the expert was able to observe the new anchor piles.

### **E1 Surface water**

- Roof water is collected by gutters and directed into council's drains, and there are no apparent problems relating to surface water drainage.

### **E3 Internal moisture**

- The new bathroom appears to be constructed in a compliant manner, with two opening sashes providing good ventilation and no evidence of excess condensation or mould growth.

### **F2 Hazardous building materials**

- While the expert did not confirm the use of safety glass for shower doors, I note that the shower cubicle is a proprietary unit that would use safety glass.

### **F4 Safety from falling**

- The balustrade to the internal staircase is satisfactory.

### **G1 Personal hygiene, G2 Laundering, G3 Food preparation**

### **G4 Ventilation, G7 Natural light G8 Artificial light and G9 Electricity**

- The interior generally complies with the consent drawings, which show adequate provision to comply with the requirements.

- The expert noted that all areas appeared to be satisfactory and compliant. I also note the 'Electrical Certificate of Compliance' dated 3 March 2004.

### **G12 Water Supplies and G13 Foul Water**

- Fixtures appear to be in normal operating condition with no apparent problems.
- The authority's inspection summary indicates satisfactory pre-line and final plumbing and drainage inspections.

### **H1 Energy Efficiency**

- The authority carried out pre-line inspections and the expert noted fibreglass insulation installed in the ceiling and the wall at the bedroom cut-out.

5.8 A copy of the expert's report was provided to the parties on 14 October 2010.

## **Matter 1: The cladding**

### **6. Weathertightness**

6.1 The evaluation of building work for compliance with the Building Code and the risk factors considered in regards to weathertightness have been described in numerous previous determinations (for example, Determination 2004/1).

#### **6.2 Weathertightness risk**

6.2.1 The section of the house affected by the addition has the following environmental and design features which influence its weathertightness risk profile:

##### **Increasing risk**

- the addition is two-storeys-high
- although the plan of the addition is simple, the form includes some complex roof to wall junctions, some unconventional window joinery and two types of wall claddings
- although there are eaves to shelter the cladding, there are no verge projections

##### **Decreasing risk**

- the house is sited in a medium wind zone
- the monolithic cladding to some of the walls is fixed over a cavity
- there are no attached decks
- the external wall framing is likely to be treated to a level that provides resistance to decay if it absorbs and retains moisture.

6.2.2 When evaluated using the E2/AS1 risk matrix, these features show that the relevant elevations of the house demonstrate a moderate risk rating. I note that the EIFS cladding to this addition is installed over a cavity, in accordance with the current general requirements of E2/AS1. I also note that a drained cavity for EIFS cladding was not a requirement of E2/AS1 at the time of construction of this addition.

### **6.3 Weathertightness performance**

6.3.1 Generally the claddings appear to have been installed in accordance with good trade practice and to the manufacturer's recommendations at the time. However, taking account of the expert's comments in paragraph 5.5, I conclude that remedial work is necessary in respect of the following:

- the lack of spreaders to the downpipes discharging onto lower roofs
- the cracks to the EIFS on the north elevation.

### **6.4 Weathertightness conclusion**

6.4.1 I consider the expert's report establishes that the current performance of the building envelope is adequate because it is preventing water penetration at present. Consequently, I am satisfied that the addition complies with Clause E2 of the Building Code.

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

6.4.3 Because the faults identified with the claddings occur in discrete areas, I am able to conclude that satisfactory rectification of the minor items outlined in paragraph 6.3.1 will result in the building envelope being brought into compliance with Clauses B2 and E2 of the Building Code.

6.4.4 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. 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: Other clause requirements**

### **7. Discussion**

7.1 Taking account of the expert's report and the authority's inspection records, I have reasonable grounds to conclude that the addition complies with the remaining relevant clauses of the Building Code.

## Matter 3: The durability considerations

### 8. Discussion

- 8.1 The authority also has concerns regarding the durability, and hence the compliance with the building code, of certain elements of the building work taking into consideration the age of the addition.
- 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 the addition and the request for a code compliance certificate has raised concerns that various elements of the addition 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. I have not been provided with any evidence that the authority did not accept that those elements complied with Clause B2 at a date in 2004.
- 8.5 It is not disputed, and I am therefore satisfied that all the building elements installed in the addition, apart from the items that are to be rectified, complied with Clause B2 on 26 August 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, as in practical terms the building is no different from what it would have been if a code compliance certificate for the building work had been issued in 2004.
- 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. The authority's actions**

- 9.1 In my opinion the authority's letter to the applicants, dated 28 January 2010, is not sufficiently explicit as to the reasons why the authority would not issue the code compliance certificate. The authority advised that it could not be satisfied on reasonable grounds that the following Building Code clauses had 'been met and maintained in the period since the issue of the building consent':
1. Durability in terms of B2 and/or
  2. Weathertightness in terms of E2 and/or
  3. Other appropriate provisions of the building code

I note that the authority has used the same words in respect of other properties in similar circumstances where it has refused to issue a code compliance certificate.

- 9.2 The authority advises that it carried out an inspection of the building before compiling its January 2010 letter to the applicants. That being the case, the inspection should have provided the authority with sufficient information to make the letter more meaningful and helpful to the applicants in terms of the specific reasons why it was unable to issue the code compliance certificate, rather than adopting the standard words used.
- 9.3 In conclusion, I do not consider the authority has reasonably explained the reasons for declining to issue the code compliance certificate, as it is required to do under section 95A of the Act.

## **10. What is to be done now?**

- 10.1 The owners should address the areas outlined in paragraph 6.3.1 and the authority should verify that these minor defects have been satisfactorily remedied. If any of the identified items are not satisfactory, then a notice to fix should be issued that requires the owner to bring the addition into compliance with the Building Code, identifying those items.
- 10.2 Once the matters set out in paragraph 6.3.1 have been rectified to its satisfaction, the authority should issue a code compliance certificate in respect of the building consent amended as outlined in paragraph 8.

## 11. The decision

11.1 In accordance with section 188 of the Building Act 2004, I hereby determine that the external envelope does not comply with Building Code Clause B2 and accordingly, I confirm the authority's decision to refuse to issue a code compliance certificate.

11.2 I also determine that:

- (a) all the building elements installed in the addition, apart from the items that are to be rectified as described in this determination, complied with Clause B2 on 26 August 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 26 August 2004 instead of from the time of issue of the code compliance certificate for all the building elements, with the exception of the items to be rectified as set out in paragraph 6.3.1 of Determination 2010/127.

Signed for and on behalf of the Chief Executive of the Department of Building and Housing on 15 December 2010.

John Gardiner  
**Manager Determinations**