

## Determination 2007/139

### Determination about a territorial authority's decision not to rely on a building certifier's inspections for alterations to a house at 244 Plummers Point Road, RD4, Tauranga



#### 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, Manager Determinations, Department of Building and Housing (“the Department”), for and on behalf of the Chief Executive of that Department. The applicant is one of the owners, N Harris, (“the applicant”), and the other party is the Western Bay of Plenty District Council (“the territorial authority”).
- 1.2 The matter for determination is whether the territorial authority’s decision to decline to issue a code compliance certificate for 3-year old additions and alterations to a house is correct. The refusal arose because the building work had been undertaken under the supervision of Bay Building Certifiers (“the building certifier”) which was duly registered as a building certifier under the former Building Act 1991, but which

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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).

lost its approval as a building certifier before it had issued a code compliance certificate for the building work.

- 1.3 The territorial authority has issued a certificate of acceptance, but has refused to issue a code compliance certificate as it considers it cannot be satisfied that the building work as a whole complies with the Building Code<sup>2</sup> (First Schedule, Building Regulations 1992).
- 1.4 In order to determine that matter, I must address the following questions:
- (a) Is there sufficient evidence to establish that the building work as a whole complies with the Building Code? If so, a code compliance certificate can be issued.
  - (b) If not, are there sufficient grounds to conclude that, once any outstanding items are repaired and inspected, the building work will comply with the Building Code? If so, a code compliance certificate can be issued in due course.

I address question a) in paragraph 5 and question b) in paragraph 9.

- 1.5 In making my decision, I have considered the submissions of the parties, the expert's report (see paragraph 6.1) and the other evidence in this matter. I have evaluated this information using a framework that I describe more fully in paragraph 7.1.
- 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 detached boatshed and an addition and kitchen alterations to a two-storied detached house situated on a flat rural site, which is in a moderate wind zone for the purposes of NZS 3604<sup>3</sup>. The original house was constructed in the 1980's, and the small two-storied addition to the north-west elevation provides a new ground floor entry, stairwell and upper level dining room. The construction is conventional light timber frame with some specifically engineered elements, a concrete slab and foundations, vertical board and batten cladding, and timber windows (including some re-used joinery). The addition is fairly simple in plan and form, with the existing 35° pitch gable roof extended in profiled metal roof cladding. The skillion roof has exposed rafters, 600 mm eaves and a verge projection of about 800 mm to the dining room (also with exposed rafters), and no roof projections above the stairwell walls.
- 2.2 A timber-framed deck, with a timber slat floor and open timber balustrades, extends from the dining room projection around the north corner and along part of the north-east elevation, with an external staircase providing access from the ground to the south-east. Another deck structure ("the planter deck") is used as a small planter box; and has a membrane floor, timber balustrades and no access doors. The planter

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<sup>2</sup> The Building Code is available from the Department's website at [www.dbh.govt.nz](http://www.dbh.govt.nz).

<sup>3</sup> New Zealand Standard NZS 3604:1999 Timber Framed Buildings

deck projects from the north-west wall of the dining room, supported on timber posts.

- 2.3 The building work includes a detached boatshed, with exposed timber framing, a gable roof and a lean-to carport. The boatshed is a simple rectangular shape, with roof pitches and wall claddings to match the house.
- 2.4 The applicant has submitted copies of invoices from the timber supplier, which indicate that the external wall framing supplied for the additions was “RAD STRESS GRADED LOSP H1.2 PLUS 5400MM”, with the deck framing H3 treated. I therefore consider that the wall framing is treated to a level that will provide resistance to fungal decay.
- 2.5 The walls of the house are clad with unpainted Leyland cypress timber vertical boards (approximately 200mm wide) and 50 mm wide battens, fixed through the building wrap to the framing. I note that Leyland cypress and macrocarpa are both members of the Cupressus family of timbers, and have very similar properties. The boards and battens have weathergrooves of approximately 6mm x 6mm.
- 2.6 The installer of the membrane to the planter deck has provided a producer statement dated 6 March 2007 for the application.

### **3. Background**

- 3.1 The territorial authority issued a building consent (No. 69557) on 28 October 2003. The building work took place between October 2003 and August 2004.
- 3.2 The building certifier carried out a total of 10 inspections during construction, including the following types:
  - Under floor and slab on 7 November 2003 (which passed)
  - Building and plumbing prelines on 29 January 2004 (which passed)
  - Final building and plumbing on 2 August 2004
- 3.3 The building certifier’s inspection summary notes outstanding items identified during the final inspection on 2 August 2004 as:

Builder to nog under stair treads. Shed and carport okay. Okay to issue CCC when we receive producer statement for butynol planter.
- 3.4 The building certifier lost its approval as a certifier on 30 June 2005 without issuing a code compliance certificate. It appears that the owners assumed that all matters had been resolved and did not realise that a code compliance certificate had not been issued for the building work (refer paragraph 4.1). I note that, although Bay Building Certifiers is no longer approved as a building certifier, it operates as Bay Inspections, a contractor providing building regulatory services (“the contractor”) to Tauranga City Council.
- 3.5 In a pro-forma letter to the applicants, dated 20 June 2006, the territorial authority explained that when the building certifier ceased operating, an agreement had been

made with the contractor to complete outstanding inspections on the building certifier's projects and make recommendations regarding the issuing of code compliance certificates. The territorial authority went on to explain that the liability for building work imposed by the Act meant that:

...before Council accepts such liability by issuing Code Compliance Certificates it must be satisfied inspections carried out by Bay Building Certifiers and Bay Inspections were satisfactory to confirm projects have been completed to the standards required by the Building Acts 1991 and 2004. Unfortunately our experience to date is that these inspections, supporting documentation and evidence are not satisfactory to support Council issuing Code Compliance Certificates. Regrettably, this lack of satisfactory inspection detail puts Council in the position where it is unable at this time to accept liability for these deficient projects or issue Code Compliance Certificates.

The territorial authority explained that further inspections were therefore required in order to determine:

- If a Code Compliance Certificate could be issued or whether more building work and inspections are necessary, or
- If a Certificate of Acceptance could be issued or whether more building work and inspections are required, or
- If a Certificate of Acceptance is not appropriate or a Code Compliance Certificate cannot be issued to advise owners of their right to seek a Determination from [the Department].

3.6 On 18 October 2006 the territorial authority carried out an assessment of the building work and, in a letter to the applicant dated 24 October 2006, identified the following issues requiring attention:

1. The deck has been extended around the eastern side of the dwelling, the location and design of the stairs changed but we have no plans with details etc in the file. A further inspection will be made when we have that information.
2. The ends of some of the head flashings are not sealed.
3. Beam penetration through wall cladding under veranda extension requires sealing.
4. Provide a producer statement from the installer of the membrane on the decorative deck over the front entrance.

3.7 The territorial authority also stated that:

It should also be noted that on completion of the remedial work Council will not issue a Code Compliance Certificate for the building. ...Section 91 of the [Act] requires that you apply for a Certificate of Acceptance.

If Council then decides it is able to issue a Certificate of Acceptance it will only cover those elements of the building that can be readily inspected and compliance with the Building Code determined.

3.8 It appears that the outstanding items noted in paragraph 3.6 were subsequently satisfactorily completed and the territorial authority issued a certificate of acceptance (No 76283) on 28 June 2007 for the following building work:

Timber structure of boatshed, spouting and downpipes both buildings  
 New timber deck structures and barriers but excluding posts and foundations  
 Sealing of floors, walls and ceiling in kitchen alteration  
 New internal stair and handrail

The certificate was limited to the parts of the building work that the territorial authority was able to inspect, and stated:

This certificate does not include the structure excepts where listed above, or weathertightness/cladding of the buildings, water pipes, waste pipes or other enclosed services or materials.

3.9 The Department received an application for a determination from the applicant on 9 July 2007 and sought further information which was received on 22 August 2007.

#### **4. The submissions**

4.1 In a letter to the Department dated 4 July 2007, which accompanied the application, the applicant briefly outlined the history of the project and explained his understanding that the building certifier would issue the code compliance certificate, noting:

We were very surprised when we received a letter from the Western Bay of Plenty District Council on 20/6/06 to say we did not have a CCC and they were taking over from the failed firm...

In a subsequent letter to the Department dated 12 August 2007, which accompanied additional information, the applicant noted that the certificate of acceptance:

...carries with it the implication that they would not issue a CCC. This CCC is what we want, and is what the building inspector told us verbally they would not issue to us.

4.2 The applicant forwarded copies of:

- the drawings and specifications
- the building certifier's inspection summary
- the certificate of acceptance dated 28 June 2007
- various calculations, producer statements and invoices.

4.3 In a letter to the Department dated 22 August 2007, the territorial authority stated:

The reason for Council's decision not to issue a Code Compliance Certificate is that Council had not had the opportunity to inspect the building work as it progressed and, accordingly, is not prepared to accept liability for it.

It is also worth noting that, of the ex Bay Building Certifiers Ltd projects inspected by Council, few, if any, have not needed additional remedial work.

4.4 Copies of the submissions and other evidence were provided to each of the parties. Neither party made any further submissions in response to the submission of the other party.

4.5 The draft determination was sent to the parties for comment on 11 October 2007. The territorial authority accepted the draft on 21 November 2007.

4.6 In a letter to the Department, dated 25 October 2007, the applicant advised that he did not accept the draft because it incorrectly described the treatment of the framing

timber and the applicant submitted invoices for the timber concerned. I have amended the determination accordingly, refer paragraph 2.4.

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

- 5.1 In order for me to form a view as to code compliance, I need to establish what evidence is available and what can be obtained considering that the building work is completed and some of the elements are not able to be cost-effectively inspected.
- 5.2 In this case the evidence consists of the summary of inspections carried out by the building certifier, the territorial authority's additional final inspection, the certificate of acceptance issued by the territorial authority, as well as the report of the expert I commissioned to provide additional evidence.
- 5.3 The territorial authority believes that any decision it makes with respect to compliance of the house is limited by what items it is able to inspect. I first need to decide if I can rely on those inspections that were undertaken by the building certifier, particularly in regard to inaccessible building components.
- 5.4 In the absence of any evidence to the contrary, I take the view that I am entitled to rely on the inspections undertaken by the building certifier. However, before deciding whether or not to rely on its 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 I note the inspection summary indicates that 10 inspections were required for the project, and 10 inspections were carried out, although a recheck following the final inspection was not undertaken. I also note that the final inspection said a code compliance certificate could be issued when a producer statement for the membrane was received (refer paragraph 3.3).
- 5.6 In summary, I find that the following evidence allows me to form a view as to the code compliance of the building work as a whole:
- The summary of inspections carried out by the building certifier which indicates satisfactory inspections of the (now) inaccessible components
  - The territorial authority's additional final inspection
  - The certificate of acceptance issued for the building work
  - The expert's report as outlined below

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

- 6.1 As discussed 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.

## 6.2 The cladding

6.2.1 The expert inspected the claddings of the building on 6 September 2007, and furnished a report that was completed on 13 September 2007. The expert noted that the building work was generally of a good standard except in the vicinity of the verandah apron flashing as noted in paragraph 6.2.5. The expert also noted that the cladding had adequate base overlaps and ground clearances, penetrations were generally well sealed and the deck appeared satisfactory.

6.2.2 The expert noted that the timber windows are bordered by timber facing boards, with metal head flashings overlapping the top facings, a timber sill and no sill flashings. I note that the window design and installation is traditional, with a full depth sloping solid timber sill member serving the same function as a sill tray.

6.2.3 The expert eased out a section of batten, and noted the weathergrooves in the back of the batten and the corresponding grooves in the front of the board.

6.2.4 The expert inspected the interior of the house and no evidence of moisture was observed. The expert took non-invasive moisture readings internally around the house and all readings were 12% or lower. The expert took invasive moisture readings through the cladding at risky locations, and an elevated reading of 26% was recorded in the framing below the bottom of the apron flashing.

Elevated moisture levels recorded after cladding is in place may indicate that external moisture is entering the structure.

6.2.5 Commenting specifically on the cladding, the expert noted that:

- there is insufficient clearance from the bottom of the cladding to the verandah roof on the southwest elevation, and water is splashing against the cladding
- the end of the apron roof flashing at the verandah lacks a kickout and moisture is apparent in the framing below
- there is no spreader to the downpipe discharging onto the verandah roof.

6.3 The expert also noted that rainwater is soaking into the uncoated cladding. However, I note that macrocarpa timber does not need to be coated to achieve a 15 year minimum durability.

6.4 Although outside the scope of the inspection, the expert also observed signs of water penetration associated with the dormer windows of the original house.

## 6.5 Other relevant code clauses

6.5.1 The expert also assessed compliance with other relevant building code clauses, and made the following comments:

- **B1 Structure**

The building certifier's inspection summary indicates that foundation, slab and pre-line inspections were satisfactory, and there is no evidence of structural problems.

- **E1 Surface Water**

Drainage and stormwater is collected in an existing septic tank and soakpit respectively. No problems were observed.

- **E3 Internal moisture**

All kitchen finishes appear satisfactory, with no problems observed.

- **F4 Safety from falling**

The deck and stair balustrades are adequate.

- **G1 Personal Hygiene**

Spaces and facilities are appropriate, with adequate provision for cleaning and protection against food contamination.

- **G4 Ventilation**

Mechanical ventilation is provided to the new kitchen, and opening windows and doors provide adequate natural ventilation.

- **G7 Natural Light**

The additions have adequate provision of natural light.

- **G13 Foul Water**

The building certifier's inspection summary indicates that satisfactory plumbing and drainage inspections were undertaken. All fixtures appear to be in good operating condition and the existing septic tank system is currently operating satisfactorily.

- **H1 Energy Efficiency**

Although the ceiling insulation could not be inspected as the skillion roofs are inaccessible, the building certifier's inspection summary indicates that wall and ceiling insulation was inspected and passed.

6.6 A copy of the expert's report was provided to each of the parties on 14 September 2007.

## **7. Evaluation for code compliance**

### **7.1 Evaluation framework**

7.1.1 I have evaluated the code compliance of these additions by considering the following two broad categories of the building work:

- The weathertightness of the external building envelope (clause E2) and durability (clause B2 in so far as it relates to clause E2).
- The remaining relevant code requirements.

In the case of this building work, weathertightness considerations are addressed first.



7.1.2 In evaluating the design of a building and its construction, it is useful to make some comparisons with the relevant Acceptable Solutions<sup>4</sup>, which will assist in determining whether the features of these buildings are code compliant. However, in making this comparison, the following general observations are valid:

- Some Acceptable Solutions are written conservatively to 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.

## 7.2 Evaluation of external building envelope for E2 and B2 Compliance

7.2.1 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 determinations<sup>5</sup> (for example, Determination 2004/1) relating to cladding and these factors are also used in the evaluation process.

7.2.2 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.

## 7.3 Weathertightness risk

7.3.1 In relation to these characteristics I find that the additions to this building:

- are built in a moderate wind zone
- are a maximum of two storeys high
- are fairly simple in plan and form
- have vertical board and batten cladding fixed directly to the framing
- have no eaves or verge projections to some walls
- have an upper deck and planter deck, with open timber balustrades
- have external wall framing that is treated to a level that provides resistance to the onset of decay if the framing absorbs and retains moisture.

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<sup>4</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).

<sup>5</sup> Copies of all determinations issued by the Department can be obtained from the Department's website.

- 7.3.2 The addition 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.
- 7.3.3 When evaluated using the E2/AS1 risk matrix, the weathertightness features outlined in paragraph 7.3.1 show that all elevations of the addition demonstrate a moderate weathertightness risk rating. I note that, in order to comply with E2/AS1, the vertical board and batten cladding on this building would not require a drained cavity.

#### **7.4 Weathertightness performance: exterior cladding**

- 7.4.1 Generally the cladding appears to have been installed in accordance with good trade practice and in accordance with the manufacturer's instructions. Taking account of the expert's report, I conclude that remedial work is necessary in respect of the following:
- Inadequate clearance from the bottom of the cladding to the verandah roof
  - The lack of a kickout to the end of the apron roof flashing to the verandah roof
  - The lack of a spreader to the downpipe discharging onto the verandah roof
- 7.4.2 I note the expert's comment in paragraph 6.3, but I accept that the board and batten cladding does not require coating or sealing to achieve a 15 year minimum durability.
- 7.4.3 I also note the expert's comments in paragraph 6.4 with regard to the dormer windows of the original house, and draw this to the attention of the owners.

#### **7.5 Evaluation of other code requirements**

- 7.5.1 Based on the expert's comments as outlined in paragraph 6.5.1, there appears to be no evidence of any lack of compliance with other relevant clauses of the Building Code.
- 7.5.2 Based on the expert's assessment of visible components of the building together with the inspection records and other documentation, I consider that the building is likely to comply with the provisions of the remaining relevant code clauses.

### **8. Discussion**

#### **8.1 Weathertightness**

- 8.1.1 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 addition in one area at present. Consequently, I am satisfied that the building work does not comply with Clause E2 of the Building Code.

- 8.1.2 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 addition are likely to allow the ingress of moisture in the future, the building work does not comply with the durability requirements of Clause B2.
- 8.1.3 Because the faults identified with the cladding system occur in discrete areas, I am able to conclude that satisfactory rectification of the items outlined in paragraph 7.4.1 will result in the building work being brought into compliance with Clauses B2 and E2.
- 8.1.4 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.
- 8.1.5 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).

## **8.2 Other code clauses**

- 8.2.1 I consider that the expert's report establishes that the building work complies with all other relevant clauses of the building code. Based on the expert's assessment of visible components of the building, together with the inspection records and other documentation, I therefore consider that the building work is likely to comply with the provisions of the remaining relevant code clauses.
- 8.2.2 I accordingly consider that the building work complies with Clauses B1, E1, E3, F4, G1, G4, G7, G13 and H1 of the Building Code.

## **9. The appropriate certificate to be issued**

- 9.1 Having found that the building can be brought into compliance with the Building Code, I must now determine whether the certificate of acceptance issued by the territorial authority was the appropriate certificate for this building work.
- 9.2 Section 437 of the Act provides for the issue of a certificate of acceptance where a building certifier is unable or refuses to issue either a building certificate under section 56 of the former Act, or a code compliance certificate under section 95 of the current Act. In such a situation, a territorial authority may, on application, issue a certificate of acceptance or a code compliance certificate. I have seen no evidence that the owners made an application for a certificate of acceptance. The applicant has made it clear he wants a code compliance certificate, rather than a certificate of acceptance (refer paragraph 4.1).

9.3 In this situation, where I have reasonable grounds to conclude that the consented building work can be brought into compliance with the Building Code, I am of the view that the certificate of acceptance was not necessary, and that a code compliance certificate is the appropriate certificate to be issued in due course.

## **10. The decision**

10.1 In accordance with section 188 of the Building Act 2004, I determine that the building work does not comply with Clauses B2 and E2 of the Building Code, and accordingly confirm the territorial authority's decision to refuse to issue a code compliance certificate.

10.2 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 work into compliance with the Building Code, identifying the defects listed in paragraph 7.4.1 and referring to any further defects that might be discovered in the course of rectification, but not specifying how those defects are to be fixed. It is not for me to decide directly how the defects are to be remedied and the cladding brought to compliance with the Building Code. That is a matter for the owner to propose and for the territorial authority to accept or reject.

10.3 I would suggest that the parties adopt the following process to meet the requirements of paragraph 10.2. Initially, the territorial authority should issue the notice to fix. The owner 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.

10.4 The territorial authority shall issue a Code Compliance Certificate once the items listed in the notice to fix have been fixed to its satisfaction. At that time the territorial authority shall withdraw the certificate of acceptance (No. 76283) issued on 28 June 2007.

Signed for and on behalf of the Chief Executive of the Department of Building and Housing on 19 December 2007.

John Gardiner  
**Manager Determinations**