

Determination 2008/66

The refusal of an authority to issue a code compliance certificate for a twelve-year-old house at 28 Murray Place, Lincoln, Canterbury



1. The matter 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 applicant is the owner, J Rothera (“the applicant”), and the other party is the Selwyn District Council (“the authority”) carrying out its duties and functions as a territorial authority or building consent authority.
- 1.2 The matter for determination is whether the authority was correct in its decision to refuse to issue a code compliance certificate for a 12-year-old house because it was not satisfied that the building work complied with various clauses of the Building Code² (First Schedule, Building Regulations 1992).
- 1.3 I consider that I must answer the following questions in order to determine the above matter:

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.

Matter 1: The cladding

Do the claddings as installed on the building (“the claddings”) comply with Clause E2 External Moisture of the Building Code? By “the claddings as installed” I mean the components of the systems (such as the backing materials, the flashings, the joints and the plaster and/or the coatings) as well as the way the components have been installed and work together.

Matter 2: Other Building Code requirements

Do the other items raised by the authority comply with the relevant clauses of the Building Code?

Matter 3: The durability considerations

Do the elements that make up the building comply with Building Code Clause B2 Durability, taking into account the age of the building?

- 1.4 In making my decision, I have considered the submissions of the parties, the site visit report from the authority, 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 7.1.
- 1.5 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 single-storey detached house, which is situated on a flat site. The house is fairly simple in plan and form, with concrete foundations and floor slab, light timber frame construction, brick veneer cladding and a pressed metal tile hipped roof. The roof has no eaves projections, apart from verandas to the northwest and above the garage door to the south.
- 2.2 The expert has noted that he was unable to confirm whether the wall framing is treated. Given the date of construction in 1996 and the lack of other evidence, I consider that the external wall framing is likely to be untreated.

3. Background

- 3.1 The authority issued a building consent (No. R414263) on 23 August 1995, which I have not seen.
- 3.2 The authority carried out various inspections during construction, and I note that the concrete slab inspection on 12 October 1995 identified concerns about the damp proofing of the slab edges, noting:

Mulseal face of floor at edges where DPC is inadequate to turn up and fix to framing.

- 3.3 The last inspection during construction appears to have been a pre-line inspection on 1 March 1996. I have no records of any further inspections until the authority carried out a final inspection on 15 June 1999, which identified various outstanding items relating to insulation, gully traps and tiling and sealing in the bathroom (including decay to a door frame).
- 3.4 The authority issued an interim code compliance certificate dated 15 September 2000, which was issued “in respect of all work satisfactorily inspected to date”.
- 3.5 During 2007, the applicant purchased the original joint owner’s share of the property. One of the conditions of the sale was for the completion of all outstanding work necessary to gain a code compliance certificate. Some work was carried out, which included the installation of a new shower unit and the replacement of a damaged timber door frame in the bathroom.
- 3.6 Following completion of the remedial work, the authority carried out a final re-inspection of the house on 9 August 2007, and the inspection record includes a note saying “bathroom OK” and indicates that no re-inspection was required.
- 3.7 The applicant was not aware that there could be an issue regarding the time lapse since completion until she wished to sell the house and applied for a code compliance certificate.
- 3.8 In a pro-forma letter to the applicant dated 15 August 2007, the authority outlined the durability periods required in the building code and noted that it was unable to issue a code compliance certificate because:
- ...as a result of the time lapsed, the Council cannot now be satisfied on reasonable grounds that the building work and elements will continue to satisfy the durability provisions of the Building Code for the prescribed period after the Code Compliance Certificate has been issued.
- The authority also raised the matter of the bathroom (refer paragraph 3.3), noting:
- In addition to the durability issues, an inspection carried out on 15/6/99 identified that some premature decay has occurred in the bathroom.
- 3.9 The authority visited the property on 22 April 2008 and produced a report dated May 2007 (“the site visit report”). The report listed 20 items of concern, which are summarised in paragraph 5.5.
- 3.10 Unable to resolve the situation and wishing to sell the house, the applicant sought a determination. The application was received by the Department on 6 May 2008.
- 3.11 I have received no evidence that the applicant had received the authority’s site visit report at the time of her application.

4. The submissions

- 4.1 In a letter to the Department dated 22 April 2008, the applicant briefly outlined the history of the project, described the remedial work carried out to the bathroom, noted her lack of awareness of a “time restriction” applying to building a house, and concluded:

I would like to have this matter resolved as quickly as possible, so I can sell this property. I have a Sales Agreement subject to a Code Compliance Certificate being issued for this property.

4.2 The applicant forwarded copies of:

- the interim code compliance certificate dated 15 September 2000
- photographs of the exterior of the house
- photographs of the remedial work undertaken to the bathroom
- the records of the final inspections
- the correspondence from the authority.

4.3 The authority made a submission in the form of a letter to the Department dated 16 May 2008, which outlined the concerns relating to the age of the house, noted that the final inspection on 9 August 2007 had only checked the particular items identified in the inspection on 15 June 1999 (refer paragraph 3.3), and noted that a site visit had been undertaken on 22 April 2008.

4.4 The authority forwarded a copy of the site visit report dated May 2008, which included a series of photographs and a floor plan identifying the areas of concern.

4.5 A copy of the applicant's submission was provided to the authority, which responded as set out above. The applicant responded to the authority's submission as part of comments that were forwarded to the Department on 21 June 2008. The applicant was of the opinion that the inspection made by the authority on 15 June 1999 was a "final" inspection and referred to the comment made by the authority that "All work inspected is in accordance with the Building Consent". The applicant denied that she had informed the authority that the property "had premature decay", and considered that the majority of the items raised by the authority's report were maintenance issues. The applicant also queried why the authority had raised issues additional to those it had listed in its final notices.

5. The expert's report

5.1 As mentioned in paragraph 1.4, 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 30 May 2008 and furnished a report that was completed on 5 June 2008.

5.2 The expert noted that, although the quality of construction was "generally reasonable", some areas demonstrated that "the quality of finish and workmanship by some trades has not been carried out to a high standard".

5.3 The expert inspected the interior and exterior of the house, taking non-invasive moisture readings internally, and observed the following signs of moisture penetration in areas:

- swelling skirtings and high readings around the laundry door area

- deterioration of the sealant at the tiled wall to floor junction of the shower, with very high moisture readings noted
- water staining under the soffit at the main entry
- moss growth on the bricks behind a downpipe
- eroding mortar and moss growth to the brick window and door sills.

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

- the clearance of the bricks above the paving is inadequate in some areas, with paving raised above the bottom of the bricks, and blocking drainage slots at the bottom of the veneer
- the head flange of the windows butts against the steel lintel, with no flashing or weatherproofing protecting the junctions and no drainage slots provided to the bricks above the lintel. Gaps are apparent and the reveals and wrap are visible
- the steel lintels have insufficient bearing onto the supporting masonry, and are not installed in accordance with the NZS 3604 requirements at the time of construction
- the brick sills to windows and doors are flat, with a high build up of moss growth, and the mortar joints are soft and eroding
- the door sills appear to lack the underlying liquid membrane protection noted by the authority (refer paragraph 3.2), and moisture penetration is evident around the door
- the sealant around penetrations through the veneer is missing or deteriorating
- a downpipe is leaking, and the adjacent bricks are damp with moss growth, and the mortar joints are soft and eroding.

5.5 The expert made the following comments on the items identified in the authority's site visit report (refer paragraph 4.4):

Item	The authority's site visit report	Expert's comment
2	Brick veneer on garage northwest wall set back 25-35mm from foundation edge.	The cavity width is reduced to about 20mm (based on probes through brick vents).
3	Soffit above entry water stained.	The spouting above is covered with leaf guard, but the area appears to be leaking.
4	External light damaged, with no sealant at mounting brackets.	This is a maintenance issue, but does not risk moisture problems due to brick veneer.
5	Weep holes in veneer blocked by paving in some areas.	There is evidence of moisture affecting the veneer in several areas.
6	No protective coatings to fibre cement soffit linings.	External painting is incomplete.
7	Surface treatment on veranda beam is deteriorating.	Agreed.

Item	The authority's site visit report	Expert's comment
8	Bricks on sills lack adequate slope.	Mortar has been significantly affected by water runoff and is very soft and eroding, with moss growth apparent.
9	A downpipe is leaking and dampening the adjacent brickwork	The mortar joints in this area are very soft and can be easily removed.
10	No seismic restraints are fitted to the LPG containers.	The containers have been removed, but the anchors are corroding and loose.
11	The steel lintels to the veneer are not correctly installed, and lack adequate weatherproofing.	NZS 3604 1990 specifies a minimum bearing of 200mm, which is not achieved, and the specified weatherproofing appears to be missing.
12	The brick veneer at the corner between the bedroom and bathroom is damaged.	This is a maintenance issue.
13	The laundry door sill has missing mortar and is allowing moisture penetration.	The door sill appears to lack any effective weatherproofing, and signs of moisture are apparent.
14	A half brick at the lower corner of the laundry window is insecure.	Agreed.
15	The ramp slopes down to the laundry gully trap, allowing ponding against the gully trap.	Agreed
16	There is a minor variation in the door position between the garage and laundry.	Agreed
17	There are no smoke alarms.	Agreed – but these were not required at that time.
18	The tiling of the bath surround is inadequately sealed, with gaps showing.	Agreed.
19	Some internal walls vary from the consent drawings.	Agreed
20	The laundry room layout varies from the consent drawings.	Agreed
21	The corner window is deteriorating, with water ponding from condensation.	Agreed – deterioration appears to have been caused by the condensation.

5.6 A copy of the expert's report was provided to the parties on 6 June 2008.

5.7 The applicant responded to the report as part of comments that were forwarded to the Department on 21 June 2008. The applicant could not understand how the house received an interim code compliance certificate if the authority had concerns about its compliance. The applicant considered that some of the items mentioned by the expert were minor and could be considered as maintenance. The applicant also noted that the age of the building could contribute to some of the issues raised by the expert. The applicant also referred to the authority's final notice that had listed only 3 outstanding items, all of which had been attended to.

6. The draft determination

6.1 The draft determination was issued to the parties on 13 June 2008. The draft was issued for comment and for the parties to agree a date when the house complied with Building Code Clause B2 Durability.

6.2 The authority responded in a letter to the Department dated 24 June 2008. The authority accepted the draft but noted that it had made a “Site Visit Report” and not a “Site Inspection Report” as stated by the expert. The authority also stated that it would accept amended drawings from the applicant showing any changes made from the consented plans. The authority considered that 1 January 1997 would be an appropriate date for when the building elements complied with Clause B2 Durability.

6.3 The applicant responded in a submission sent under a cover note dated 21 June 2008. I set out below the summary of the applicant’s submission in full:

The Applicant feels that some of these issues are maintenance related and should not have a bearing on whether a Final Code Compliance issues;

The Applicant is concerned that some of the issues raised in the [authority’s] May 2008 Report and Experts Report have not been raised previously by the [authority] – [the applicant] is concerned by a possible failure of the [authority] in their Statutory Duty;

The Applicant feels she will suffer financial or other losses (in addition to any financial or other losses already suffered) if this determination proceeds on the basis of the draft;

The Applicant feels that it is unfair that her property should be made to comply with such high standards when there are similar age properties which also do not comply with such standards which have been granted Final Code Compliance;

The Applicant has concerns over the way in which [the authority] may now choose to deal with this matter which may result in serious delays and further financial and other losses for the Applicant;

[The applicant asked the Department] to reconsider their draft decision and to instruct [authority] to issue a Final Code Compliance Certificate in respect of [the] property forthwith.

6.4 At this stage, I note that in accordance with the Act, I cannot determine the matter relating to the late notification of defects by the authority. In addition, I can only assess any building on a case-by-case basis and so I cannot comment, in this instance, on other decisions reached by the authority. The standards that I have applied are those relating to the Building Code extant at the time the consent was issued. Finally, as set out in paragraph 11.2, any outstanding areas of disagreement over the rectification of any building element can be referred to the Chief Executive for a further determination.

6.5 The authority considered that 1 January 1997 would be an appropriate date when the building elements complied with Clause B2 Durability. The applicant also agreed with this date.

6.6 I have considered the submissions of the parties on the draft determination, and apart from minor changes, I have not changed my original findings.

7. Evaluation for code compliance

7.1 Evaluation framework

7.1.1 In evaluating the design of a building and its construction, it is useful to make some comparisons with the relevant Acceptable Solutions³, 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 some other provision 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 determinations⁴ (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 this house:

- is built in a high wind zone
- is a fairly simple, single-storey building
- has brick veneer cladding fixing over a drained cavity
- has no eaves projections above most walls
- has external wall framing that is not treated to a level that provides resistance to the onset of decay if the framing absorbs and retains moisture.

³ 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.

⁴ Copies of all determinations issued by the Department can be obtained from the Department's website.

- 7.3.2 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.
- 7.3.3 When evaluated using the E2/AS1 risk matrix, the weathertightness features outlined in paragraph 7.3.1 show that the elevations of the house demonstrate a low weathertightness risk rating.

7.4 Weathertightness performance: exterior cladding

- 7.4.1 Generally the roof and wall claddings appear to have been installed in accordance with reasonable trade practice, but some areas have not been satisfactorily completed. Taking account of the authority's site visit report and the expert's report, I conclude that remedial work is necessary in respect of the following:
- The inadequate clearance from the bottom of the brick to the paving and the blocked drainage slots in the brick veneer.
 - The windows, in regard to the lack of head flashings, the flat brick sills, the inadequately weatherproofed steel lintels and the lack of drainage slots above.
 - The inadequately weatherproofed door sills, and associated moisture penetration.
 - The deteriorating mortar in the brick veneer at sills and some other areas.
 - The missing and deteriorating sealant at penetrations through the brick veneer.
 - The moisture penetration into the soffit above the main entry.
 - The leaking downpipe.
 - The unsealed areas of fibre-cement to the soffits.
 - The deterioration to the exposed veranda beam.
 - The loose brick below the laundry window.
 - The brick veneer cavity and foundation edge to the garage wall.

Matter 1: The wall and roof claddings

8. Discussion

- 8.1 I consider the expert's report establishes that the current performance of the cladding is not adequate because it is currently allowing water penetration into the building in some areas. Consequently, I am satisfied that the house does not comply with Clause E2 of the Building Code.
- 8.2 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 are likely to allow the ingress of moisture in the future, the building work does not comply with the durability requirements of Clause B2.

8.3 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 house being brought into compliance with Clauses B2 and E2.

8.4 I note that the house is in need of maintenance. 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 applicant. 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 Building Code requirements

9. Discussion

9.1 Taking account of the authority's site visit report and the expert's report, I conclude that investigation and/or remedial work is necessary in respect of the following:

- The inadequate support for, and installation of, the steel lintels.
- The inadequate sealing and tiling in the bathroom, with associated moisture penetration.
- The lack of adequate surface drainage around the laundry gully trap.
- The condensation problems at the corner window.

9.2 While these were not required at the time of construction, I strongly recommend the installation of smoke alarms.

9.3 I consider the expert's report establishes that the house does not comply with Clauses B1, E1 and E3 of the Building Code.

9.4 Because the faults identified occur in discrete areas, I am able to conclude that satisfactory rectification of the items outlined in paragraph 9.1 will result in the house being brought into compliance with Clauses B1, E1 and E3.

Matter 3: The durability considerations

10. Discussion

10.1 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 completion of the building during 1996.

10.2 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 code compliance certificate" (Clause B2.3.1).

10.3 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.

10.4 The 11-year delay between the substantial completion of the house and the applicant's request for a code compliance certificate raises the issue of when all the elements of the house complied with Clause B2. I have not been provided with any evidence that the authority did not accept that those elements complied with clause B2 when the house was completed in 1996.

10.5 It is not disputed, and I am therefore satisfied, that all the building elements complied with Clause B2 on 1 January 1997. This date has been agreed between the parties, refer paragraph 6.5.

10.6 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 matters raised in this determination.

10.7 I continue to hold the views expressed in the previous relevant determinations, and therefore conclude that:

- (a) the authority has the power to grant an appropriate modification of Clause B2 in respect of all of the building elements in the building that were constructed under the building consent.
- (b) it is reasonable to grant such a modification, with appropriate notification, because in practical terms the construction is no different from what it would have been if a code compliance certificate had been issued when the building had been substantially completed in 1996.

10.8 I strongly recommend that the authority record this determination, and any modification resulting from it, on the property file and also on any LIM issued concerning this property.

11. What is to be done now?

11.1 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 paragraphs 7.4.1 and 9.1 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.

11.2 I would suggest that the parties adopt the following process to meet the requirements of paragraph 11.1. 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, 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.

11.3 I also note that various minor changes from the consent drawings have been identified and I leave the matter of appropriate documentation of these changes to the authority for resolution with the applicant.

12. The decision

12.1 In accordance with section 188 of the Building Act 2004, I determine that:

- (a) the building work does not comply with the requirements of Clauses B1, B2, E1, E2 and E3 of the Building Code, and I accordingly confirm the authority's decision to refuse to issue a final code compliance certificate
- (b) all the building elements installed in the building, apart from the items that are to be rectified as described in this determination, complied with Clause B2 on 1 January 1997.
- (c) the building consent is 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 January 1997, instead of from the time of issue of the code compliance certificate, for all the building elements, except the items as set out in paragraphs 7.4.1 and 9.1 of Determination 2008/66.
- (d) the authority shall issue a code compliance certificate in respect of the building consent as amended once the matters set out in paragraphs 7.4.1 and 9.1 have been rectified to its satisfaction.

Signed for and on behalf of the Chief Executive of the Department of Building and Housing on 22 July 2008.

John Gardiner
Manager Determinations