

Determination 2022/029

The matter to be determined

The authority's exercise of its powers of decision to refuse to issue a code compliance certificate for building consent 71345 on the remaining items in dispute, namely non-compliance with Building Code clauses B2 Durability and E2 External moisture.

Summary

The authority refused to issue a code compliance certificate for a 17-year-old house, mainly because it felt the work didn't comply with clauses E2 and B2 of the Building Code. Along with requiring additional documentation, the authority required the previous owners to engage a "suitably qualified person" to carry out a weathertightness performance of the building envelope.

The building surveyor, engaged by the owners, reported the weathertightness performance "performed satisfactorily over 15 years". The authority disagreed on the building surveyor's level of investigation – it also didn't think the builder surveyor's report was robust enough. However, it did not provide any contradictions to the report's findings or any additional evidence.

Outcome

The surveyor's report is sufficient to confirm the weathertightness performance of the building envelope. The authority's exercise of its powers of decision on the remaining items in dispute, namely non-compliance with Building Code clauses B2 Durability and E2 External moisture is reversed.

In this determination, unless otherwise stated, references to “sections” are to sections of the Building Act 2004 (“the Act”) and references to “clauses” are to clauses in Schedule 1 (“the Building Code”) of the Building Regulations 1992.

The Act and the Building Code are available at www.legislation.govt.nz. Information about the legislation, as well as past determinations, compliance documents (eg, acceptable solutions) and guidance issued by the Ministry, is available at www.building.govt.nz.

1. The parties and the matter to be determined

- 1.1. This is a determination made under due authorisation by me, Charlotte Gair, Manager Advisory, Ministry of Business, Innovation and Employment (“the Ministry”), for and on behalf of the Chief Executive of the Ministry.¹
- 1.2. The parties to the determination are:
 - 1.2.1. G Schwarz and B Bird, the previous owners of the house (“the previous owners”), who are the applicants to the determination
 - 1.2.2. S and H McCabe, the current owners of the house (“the current owners”)
 - 1.2.3. Western Bay of Plenty District Council (“the authority”), carrying out its duties as a territorial authority or building consent authority.
- 1.3. The matter to be determined, under sections 177(1)(b) and 177(2)(d) of the Act, is the authority’s exercise of its powers of decision to refuse to issue a code compliance certificate for building consent 71345. This determination focuses on the remaining items in dispute, namely non-compliance with Building Code clauses B2 Durability and E2 External moisture.
- 1.4. In deciding this matter, I have considered the submissions of the parties and the other evidence in this matter.

Matters outside this determination

- 1.5. This determination only considers whether there is sufficient evidence to demonstrate compliance with clauses E2 and B2 of the Building Code. I have not considered any other aspects of the Act or of the Building Code, nor have I considered the Building Code compliance of the other aspects of the building work covered by the building consent.

¹ The Building Act 2004, section 185(1)(a) provides the Chief Executive of the Ministry with the power to make determinations.

2. The building work

- 2.1. The dwelling is located on a level building platform on a 5254m² lifestyle property, in a high wind zone.
- 2.2. The dwelling is a steel-framed, two storey 378 m² residential dwelling, founded on perimeter concrete footings and concrete floor. It has a mono pitched roof with an eight degree slope.
- 2.3. The dwelling is clad in a combination of corrugated iron and plywood sheet cladding, over a drained and ventilated cavity, with face fitted aluminium joinery. The roof is clad in zinc and aluminium coated long-run steel.



Figure 1: External view of the dwelling

3. Background

- 3.1. The dwelling was built under a building consent issued on 1 September 2004. An amendment to the building consent to change the framing from timber to steel was lodged on 26 November 2004 and later approved by the building certifier on 3 December 2004.
- 3.2. The building certifier carried out the inspections of the building but subsequently went into receivership. Some of the inspection records were unavailable. However, the building certifier's job report provided notes and inspection details.
- 3.3. The notes section of the job report stated (in summary):
 - 3.3.1. From a site visit conducted on 15 April 2005, the thermal bridging to steel frame was discussed, and "further research to be undertaken"

- 3.3.2. The building certifier discussed options with the framing supplier, where the building certifier deemed the steel frame “OK”. The steel frame was with corrugated cladding and ply on a cavity system
 - 3.3.3. While the flashing had not been installed yet, polycarbonate and steel is “to be provided”
 - 3.3.4. The building certifier gave his approval to install the insulation; the inspection needed to be booked prior to the “linings being fixed”
 - 3.3.5. On 27 January 2006, the building certifier sent the final inspection reminder letter.
- 3.4. The inspection details of the job report stated (in summary):
- 3.4.1. On 22 November 2004, the building certifier conducted a footing inspection. They gave this a pass, with “[d]esign change to come for framing changes”
 - 3.4.2. On 6 December 2004, the building certifier conducted a slab and underfloor inspection, with they gave a pass
 - 3.4.3. On 14 April 2005, the building certifier failed the insulation inspection, noting “[i]ssues outstanding...to inspect”
 - 3.4.4. On 15 April 2005, the building certifier failed the preline and building inspection, referring to “notes in note section”
 - 3.4.5. On 21 April 2005, the building certifier failed the drainage inspection
 - 3.4.6. On 22 April 2005, the building certifier conducted another insulation inspection, this time passing it. This time, they note, “[insulation product] in walls and ceiling. Owner installed raking ceiling insulation as he goes. [Insulation product] on site”.
- 3.5. The dwelling was substantially completed sometime between May and June 2005.
- 3.6. The previous owners purchased the property some time in November 2017.
- 3.7. The previous owners carried out “external finishing work” to the dwelling and property, including the completion of the concrete driveway, retaining walls around part of the exterior of the dwelling, and all the decks.
- 3.8. The previous owners applied for a code compliance certificate on 19 March 2018. An inspection was carried out by the authority on 19 April 2018.
- 3.9. From the authority’s 19 April 2018 site visit, the failed items included:
- 3.9.1. the ground levels were “too high”
 - 3.9.2. the decks shown were not in place
 - 3.9.3. the handrails were not in place.

3.10. In the site notice, the authority advised the previous owners to engage a “competent person with suitable experience” to complete an E2 and B2 weathertightness investigation. Once that weathertightness investigation had been completed and supplied, the authority would then review and assess it.

The authority’s section 95A letter dated 22 September 2020

3.11. The authority sent two section 95A² letters, both dated 22 September 2020, as a result of the 19 April 2018 site visit. Both letters noted that based on the inspection and a desktop review, the authority could not be “satisfied on reasonable grounds” the building work complies with the Building Code or is performing as intended. In an email to the Ministry, dated 29 July 2021, the authority clarified that the second letter was the finalised section 95A letter issued to the owners, the first was an incomplete draft issued in error.

3.12. The authority identified several areas of concern in their final section 95A letter issued to the owners as follows:

1. Floor to ground clearances appear insufficient in some areas (E2 Weathertightness, B2 Durability).
2. Ground levels adjacent to the building need to be reduced “where necessary” to comply with E2.3.3, “as described in Acceptable Solution Table 18”.
3. Water supply needs to be either confirmed by a test through an IANZ accredited testing facility or an approved water treatment system needs to be installed.
4. Cladding installation cannot be confirmed to comply with E2.
5. Hot water cylinder needs a complying seismic restraint (G12 Water supplies).
6. Smoke alarms need to be fitted (F7 Warning systems).
7. Handrails “didn’t appear” to be in place.
8. There are documents required from the owners (as stated in paragraph 3.12 below).

3.13. The authority required the following documentation from the previous owners:

3.13.1. A completed application for code compliance certificate

3.13.2. As-built plan to show the change from timber to steel framing

3.13.3. Electrical safety certificate or certificate from a registered electrician

3.13.4. Gas safety certificate or certificate from a certifying gasfitter

3.13.5. As-laid drainage plan

² Section 95A of the Act covers the refusal to issue a code compliance certificate. It states, “If a building consent authority refuses to issue a code compliance certificate, the building consent authority must give the applicant written notice of —
(a) the refusal; and
(b) the reasons for the refusal.”

- 3.13.6. Producer Statement – Construction PS3 for the roof trusses with as-built plan
 - 3.13.7. Certification of the installation of solid fuel heater
 - 3.13.8. A B2.3.1 Durability amendment application to be completed, with 30 June 2005 noted as the date for when the durability periods started.
- 3.14. The authority also required the previous owners to engage a “suitably qualified person” to provide a report confirming the weathertightness performance of the building envelope.

The previous owners’ actions in response to the section 95A letter

- 3.15. The previous owners have worked to address the authority’s concerns, including providing information to the authority.
- 3.16. The previous owners engaged a building surveyor who carried out a site visit on 29 October 2020 and provided a report to the previous owners dated 17 February 2021. That report was subsequently provided to the authority.
- 3.17. The building surveyor reported (in summary):
- 3.17.1. The dwelling has generally been built in accordance with the building consent including the final amendment to the building consent.
 - 3.17.2. Prongs were inserted into the plywood lining in 17 high risk locations. The results ranged from 8.4 to 13.7 percent.
 - 3.17.3. Where the moisture levels are under 18 percent, leaks are unlikely, and this level will not support timber decay. See Appendix A for the invasive moisture content readings
 - 3.17.4. The ground clearances meet the requirements of Acceptable Solution E2/AS1.

Flashing at windows and doors

- 3.17.5. All joinery units and the electric meter box had head flashings, with window heads in plywood cladding protected by a soffit overhang.
- 3.17.6. The north elevation also has a large veranda overhang.
- 3.17.7. The building surveyor stated the head flashing appeared to be well fitted and there was no evidence of weathertightness failure.
- 3.17.8. It was not clear to the building surveyor how the jamb and flashings terminate behind the wall cladding.
- 3.17.9. However, the building surveyor stated the invasive content readings obtained on the inside around the window openings showed no evidence of failure.

Roof

- 3.17.10. Roof areas appear, for their age, to be in very good condition. Penetrations are appropriately flashed and sealed.
- 3.17.11. The barge and apron flashings appear to be well-fixed.
- 3.17.12. The cladding to roof junctions meets the requirements of E2/AS1.
- 3.17.13. The apron flashing to wall junctions have a kick-out flashing fitted, which diverts any water flowing over the flashing into the gutter.
- 3.17.14. Stormwater is collected into an externally mounted gutter system and disposed through steel downpipes into the site's soakage drainage system.

Claddings

- 3.17.15. Cladding is vertical and horizontal corrugated cladding over a cavity system. The claddings have been well maintained and are in good condition. There was an appropriate gap between the deck and wall junction.
- 3.17.16. The north elevation is clad with plywood cladding that is protected by a veranda overhand and is in sound condition.
- 3.17.17. There was no evidence of premature deterioration.
- 3.17.18. While the flashing details at the junctions could not be assessed, the internal invasive testing indicated the junctions are performing as intended.

Penetration sealing

- 3.17.19. Penetrations through the wall cladding are sealed with silicone and have been well maintained.

Conclusion

- 3.17.20. The weathertightness performance of the building envelope has performed satisfactorily over 15 years. There are several indicators of this, including invasive moisture readings performed on the flashing at the windows as the doors showing no evidence of failure.
- 3.17.21. The roof had been well maintained, with penetrations flashed and sealed with silicone.
- 3.17.22. Over and above the dwelling meeting the performance criteria of the Building Code, the dwelling also has been generally built in accordance with the building consent.
- 3.17.23. Therefore, the building surveyor was of the opinion the cladding had been installed to meet the requirements of clauses E2 and B2 of the Building Code, subject to ensuring routine maintenance was carried out.

- 3.18. The authority wrote to the previous owners on 2 June 2021, advising that the authority did not accept “that the level of investigation carried out and documented in the building surveyor’s report is robust enough to demonstrate sufficient evidence of compliance...” but the authority did not specify any issues the authority considers to be non-compliant.
- 3.19. The Ministry received an application for a determination on 14 June 2021.
- 3.20. The current owners purchased the property, with settlement on 22 April 2022.

4. Submissions

The previous owners

- 4.1. The previous owners hold the view (in summary) that while a building surveyor has completed a full inspection of the house to address any issues raised in the final section 95A letter, the authority does not consider the building surveyor’s report acceptable but yet have not reinspected the house or advised the previous owners which parts of the building surveyor’s report are unacceptable.
- 4.2. In correspondence sent to the Ministry on 30 June 2021, the previous owners further clarified their stance. They stated (in summary):
- 4.2.1. Significant improvements have been made to the property, which the authority has not reinspected
 - 4.2.2. The previous owners are unclear of what items are still in dispute from the final section 95A letter
 - 4.2.3. A Safe and Sanitary report dated 27 October 2016 provides “useful background information” with a number of documents “which address the [authority’s] request for information”
 - 4.2.4. That report concludes it is satisfied “on reasonable grounds that the dwelling is in sound condition and considered safe and sanitary in terms of sections 121 and 123 of the New Zealand Building Act”
 - 4.2.5. One item of note from that report which points out areas of non-compliance: the cladding clearance. The clearance between the cladding and ground do not meet the requirement of 150mm in some locations
 - 4.2.6. Since the commissioning of the Safe and Sanitary report, the previous owners fixed the ground clearance mentioned in the Safe and Sanitary report
 - 4.2.7. They have also installed a handrail on the stairs to the main bedroom, as well as completed the deck that was in the original building consent but not constructed.

The current owners

- 4.3. The current owners are aware of the application, but they have not expressed any views on the matter to be determined.

The authority

- 4.4. The authority holds the view (in summary):
- 4.4.1. The building surveyor's report does not provide reasonable grounds to demonstrate compliance with clauses E2 and B2 of the Building Code. The report also does not confirm whether or not the steel or insulation has deteriorated at all, which the authority "would consider a minimum". The methods used in the building report for "evidence of compliance" are not robust enough to demonstrate sufficient evidence of compliance.
 - 4.4.2. A reinspection of the completed works will not resolve the matters that are still outstanding, as an invasive investigation must be carried out to confirm that there has been no deterioration of the steel or insulation.

Responses received after the draft determination

- 4.5 The previous owners accepted the draft Determination without any comment on 30 June 2022.
- 4.6 The authority accepted the draft Determination without any comment on 28 June 2022.
- 4.7 The new owners accepted the draft Determination without any comment on 30 June 2022.

5. Discussion

- 5.1. The authority is of the view the building surveyor's report does not provide reasonable grounds to demonstrate compliance with clauses E2 and B2 of the Building Code.
- 5.2. The particular concerns of the authority relate to the steel frame construction and that method of investigation carried out by the building surveyor does not include an invasive assessment of whether the building envelope has prevented moisture from entering the structure.

Legislation

- 5.3. The building consent was issued under the former Act, and the transitional provisions of the current Act apply. Section 436(3)(b)(i) requires the authority issue a code compliance certificate on if it "is satisfied that the building work concerned complies with the building code that applied at the time the building consent was granted."

5.4. The following Building Code clauses, which appear to be in dispute, were applicable at the time the building consent was granted:

Clause E2

E2.3.1 Roofs and exterior walls shall prevent the penetration of water that could cause undue dampness, or damage to building elements.

E2.3.2 Walls, floors and structural elements in contact with the ground shall not absorb or transmit moisture in quantities that could cause undue dampness or damage to building elements.

Clause B2

B2.3.1 Building elements must, with only normal maintenance, continue to satisfy the performance requirements of this code for the lesser of the specific intended life of the building, if stated, or:

(a) The life of the building, being not less than 50 years, if:

- (i) Those building elements (including floors, walls, and fixings) provide structural stability to the building, or
- (ii) Those building elements are difficult to replace or,
- (iii) Failure of those building elements to comply with the building code would go undetected during both normal maintenance of the building

(b) 15 years if:

- (i) Those building elements (including the building envelope...) are moderately difficult to access or replace, or

...

Weathertightness performance

5.5. The authority stated in its final section 95A letter that it required a report by a “suitably qualified” person to provide reasonable grounds to confirm the compliance of the building envelope.

5.6. The authority, however, did not appear to have identified any specific areas of concern in that final section 95A letter.

5.7. The previous owners have provided such as report, but the authority disputed the testing methods used for the invasive moisture readings. The authority did not appear to clarify whether any items which were listed in the final section 95A letter listed were rectified.

5.8. It is acknowledged the testing used by the building surveyor is intended to be used on timber framing. However, the steel framing does not absorb moisture. If there was any moisture entering the building, the internal plywood linings would absorb

moisture, and this would be reflected in the moisture content readings carried out. Yet, the readings were consistent with the conclusion there are no leaks.

- 5.9. If leaks did occur, it would be reasonable to expect some evidence of it after an extended period of time. After 17 years, I would also expect there to be visual evidence of damage or dampness to the plywood linings. The authority did not identify any visual damage when it undertook its inspection, and this was confirmed in the building surveyor's report.
- 5.10. While there were missing records from the building certifier, the job record did note only a "final" inspection was required. The previous owners also provided the authority with an extensive number of photographs, which shows the various stages of construction including the foundations, steel framing, insulation etc. The authority did not raise any concerns from its review of the photographs.
- 5.11. I acknowledge the conclusions of the building surveyor's report, noted in paragraphs 3.17.20 to 3.17.23 above. With the information and evidence provided to me at this time, I do not find any contradictions to the findings from the report.
- 5.12. I see no other evidence provided by the authority to indicate otherwise – only that the authority was unsatisfied with the methods of testing by the building surveyor, and the authority cannot conclude whether or not there is significant moisture ingress.
- 5.13. The roof and wall claddings are now 17 years' old, and the building surveyor's investigations have found no evidence of past moisture ingress. I consider that the report is sufficient to confirm the weathertightness performance of the building envelope.

6. Decision

- 6.1. I determine that the authority's decision to refuse to issue the code compliance certificate on the remaining items in dispute, namely the matters in respect of non-compliance with Building Code clauses B2 Durability and E2 External moisture, is reversed.

Signed for and on behalf of the Chief Executive of the Ministry of Business, Innovation and Employment on 20 December 2022.

Charlotte Gair

Manager, Advisory

APPENDIX A

Invasive moisture content readings carried out by the building surveyor

No	LOCATION	ELEV.	MC
	Upper floor		
1	Below the LHS of the bedroom window	north	08.9%
2	Below the RHS of the bedroom window	north	09.6%
3	Below the RHS of the bedroom window	east	10.1%
	Ground floor		
4	Bottom RHS corner of the lounge	north	11.9%
5	Below the RHS corner of the lounge window	west	08.9%
6	Below the LHS of bedroom 2 window	north	11.7%
7	Below the RHS of bedroom 3 window	north	10.1%
8	Bottom LHS corner of studio	north	09.9%
9	Bottom RHS corner of the studio	north	09.7%
10	Bottom RHS corner of the studio	south	11.8%
11	Bottom RHS corner of the hallway (next to the toilet)	south	11.0%
12	RHS corner of the garage door (in the plaster board)	east	12.4%
13	Bottom LHS of the garage door (in the plaster board)	west	12.9%
14	Bottom plate RHS of the garage door (in the plaster board)	west	13.7%
15	Below the LHS of the nook window	west	8.4%
16	Below the LHS of the nook window	north	11.5%
17	Below the RHS of the nook window	north	12.6%