



Determination 2016/024

The refusal to issue a code compliance certificate for a 21-year-old house with corrugated steel wall cladding at 16 Rotoiti Street, Dunedin



Summary

This determination considers the authority's decision to refuse to issue a code compliance certificate based on concerns regarding the weathertightness and durability of the exterior envelope. The determination reviewed the reasons given for the refusal and considered whether the building work complies with the Building Code.

1. The matter to be determined

- 1.1 This is a determination under Part 3 Subpart 1 of the Building Act 2004¹ ("the current Act") made under due authorisation by me, John Gardiner, Manager Determinations and Assurance, Ministry of Business, Innovation and Employment ("the Ministry"), for and on behalf of the Chief Executive of the Ministry.
- 1.2 The parties to the determination are:
 - the owner of the house, M Hodges ("the applicant")
 - the Dunedin City Council ("the authority"), carrying out its duties as a territorial authority or building consent authority.
- 1.3 This determination arises from the decision of the authority to refuse to issue a code compliance certificate for a 21-year-old house, because it was not satisfied that the building work complied with certain clauses² of the Building Code (First Schedule, Building Regulations 1992) due to a lack of inspections.

¹ The Building Act, Building Code, compliance documents, past determinations and guidance documents issued by the Ministry are all available at www.building.govt.nz or by contacting the Ministry on 0800 242 243.

² 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.

- 1.4 The matter to be determined³ is therefore the authority's exercise of its powers of decision in refusing to issue the code compliance certificate for the. In deciding this matter, I must consider:
- (a) Whether the external building envelope of the house complies with Clause B2 Durability and Clause E2 External moisture of the Building Code that was in force at the time the original consent was issued. The building envelope includes the components of the systems (such as the wall and roof claddings, the windows and the decks) as well as the way the components have been installed and work together.
 - (b) Whether other items not passed during inspections comply with relevant Building Code clauses: namely Clauses B1 Structure, E3 Internal Moisture, G12 Water supplies, G13 Foul Water and H1 Energy efficiency.
 - (c) The manner in which the authority exercised its powers of decision, with regard to the grounds on which it based its decision (refer paragraph 7).
- 1.5 In making my decision, I have considered the submissions of the parties, the report of the expert commissioned by the Ministry to advise on this dispute ("the expert"), and the other evidence in this matter.

1.6 Matters outside this determination

- 1.6.1 The property contains the house and separate studio that were constructed under one building consent issued in 9 February 1994. The compliance of the studio was the subject of Determination 2011/074 issued on 12 August 2011. That determination found that the studio did not comply with Clauses B1, B2, E2 and F4. Remedial work was undertaken and a code compliance certificate issued on 6 June 2013. The studio is not considered in this determination, though it is noted that the house and studio are of similar construction.
- 1.6.2 I understand the applicant has agreed to apply to the authority for a modification of durability provisions to allow the durability periods specified in Clause B2.3.1 to commence from the date of substantial completion in 1995. Although I leave this matter to the parties to resolve in due course, I have taken that anticipated modification into account when considering the performance of various elements.
- 1.6.3 The expert has noted that some components within the house were inspected and passed during various inspections; this determination does not consider those items and is limited to the matters outlined in paragraph 1.4.
- 1.6.4 This determination also does not consider the compliance of underground drains, which were altered in 2008 under a separate consent to install separate mains connections for the house and studio. Although no detailed records are available, the work included drainage for both buildings (see paragraph 5.9).
- 1.6.5 The expert noted that the fire appliance is not clearly identified and therefore it was not possible to assess its compliance against a manufacturer's specifications. I leave this matter to the parties to resolve.

³ Under sections 177(1)(b) and 177(2)(a) of the Act

2. The building work

- 2.1 The building work consists of a detached house with a partial basement on a subdivided coastal site in a sea spray zone. The site slopes steeply to the south east towards the coastline as shown in Figure 1 (over page). The consent drawings take the garage door as facing west and the expert takes the garage door as facing south; this determination follows the latter convention.
- 2.2 The house accommodates living areas, three bedrooms and an office in the upper level, with a fourth bedroom and a garage in the partial basement. A small upper deck, with a membrane floor and open timber balustrades, extends from recessed sliding doors in the east wall of the lounge, with part of the deck situated above the basement garage below and the remainder cantilevered beyond the basement wall as shown in Figure 2 (over page).
- 2.3 Construction is generally conventional light timber frame supported by a specifically designed pole foundation system, concrete floor slab to the basement area, timber floor framing, profiled metal roof roofing and a mix of aluminium and timber joinery. The wall cladding is vertically installed corrugated steel fixed through the building wrap directly to the framing timbers.
- 2.4 The roof is a mix of gables and monopitch roofs as shown in Figure 2, with eaves generally greater than 600mm overall, no verge overhangs and a raised curved section above the ridge to provide west-facing clerestory windows. A separate curved section to the west is raised above the living room and oriented at an angle to the main roof. The latter roof extends out as an angled projection beyond the west wall line, with full height glazing curved at the top in line with the roof.
- 2.5 The expert took timber samples from exterior wall framing and analysis confirmed these as *Pinus Radiata*, although the laboratory report did not identify treatment type or level. Given the date of framing installation in 1994, I consider that the timber wall framing is likely to have been boracic treated to resist decay but I am unable to assess the level of preservative applied to the timber.

Figure 1: The subdivided site

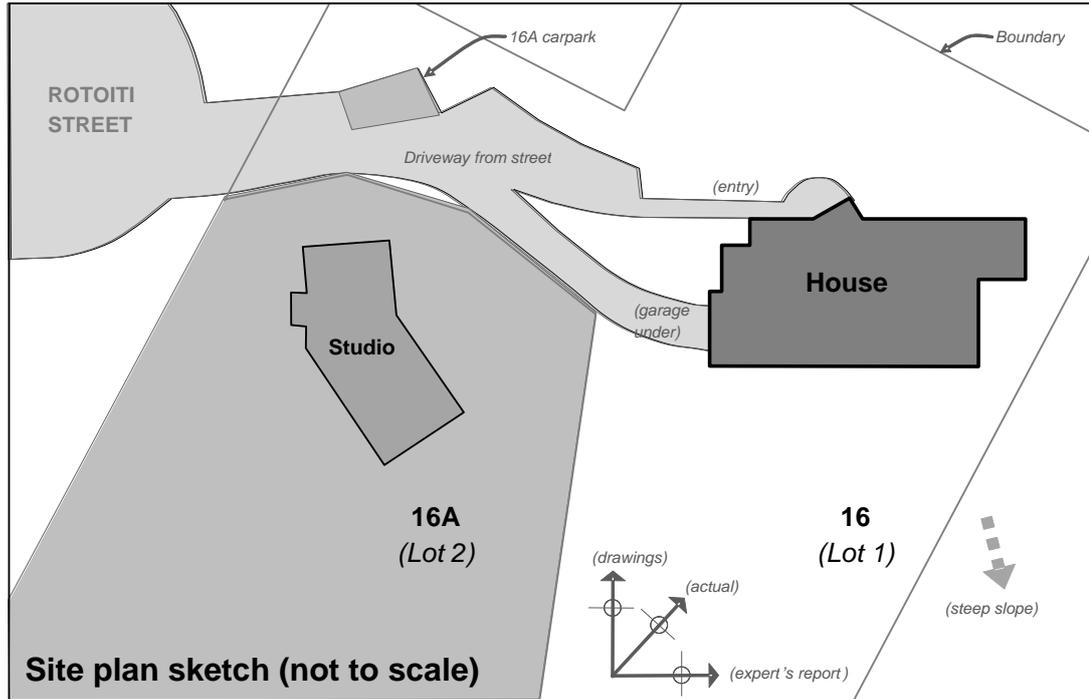
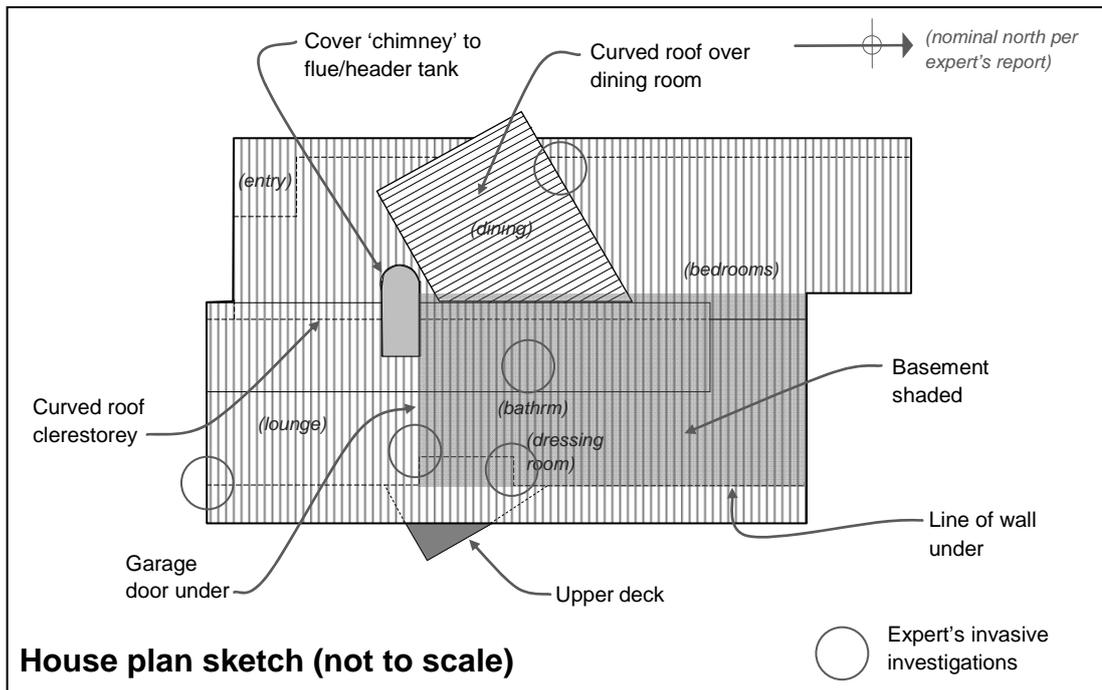


Figure 2: The house



3. Background

- 3.1 The authority issued a single building consent, no. ABA 324711⁴, for the house and studio under the Building Act 1991 (“the former Act”). I have not seen a copy of that consent, but the consent drawings are stamped as approved on 9 February 1994.
- 3.2 The consent was amended to separate the house and studio in November 2011, to allow separate code compliance certificates to be issued.
- 3.3 Apart from foundations, there are no records of inspections undertaken during construction of the buildings and no final inspection was called for when the buildings were completed. The house appears to have been substantially completed by about 1996.
- 3.4 Following subdivision in 2008, drainage systems were separated to provide separate connections into street stormwater and sewer systems for each building, with the work inspected and passed on 29 August 2008. I have not seen the inspection record but reference is made in the authority’s inspection summary, which includes the following notes that show the work was carried out under a separate consent⁵:
- New FD to Foul Sewer/ Separate consent
New Storm water to [street]/ Separate consent
- 3.5 The expert noted that the applicant completed various repairs to the house progressively over the following years, including new flashings based on the remediation work carried out on the studio; these were accepted by the authority (see paragraph 5.3).
- 3.6 The applicant sought a code compliance certificate for the house and the authority carried out partial building and services inspections on 8 January 2016. The computer-generated inspection records indicate that the building envelope, including all joinery, junctions and associated flashings, was not inspected; with the only items noted as compliant being smoke alarms, impervious surfaces, glazing, ventilation and guttering.
- 3.7 Visible elements of pipework were also not inspected and assessed, with the services inspection record simply noting the lack of pre-line plumbing and drainage inspections. The building inspection record noted:
- The only inspections recorded are for siting and ground. The Studio has been accepted by means of a [Ministry] determination. Have suggested to the Owner to undertake the same process for the dwelling.
- 3.8 In a letter to the applicant dated 19 January 2016, the authority refused to issue a code compliance certificate for the house, stating:
- As of 18 January 2016, we have determined that compliance with the Building Code could not be established, and therefore the code compliance certificate is refused in accordance with section 95A of the Building Act.
- 3.9 The Ministry received an application for a determination on 29 January 2016 and sought further records and information from the parties. Consent documentation was received from the applicant on 10 February 2015 and the authority provided access to records from the property file on 17 March 2016. I have included the additional information within the submissions below.

⁴ Reference number changed from 94026 due to change in Authority’s computer record systems

⁵ An amendment to the original consent, which is now referred to as ABA-1994-324711/A

4. The submissions

- 4.1 In an email to the Ministry dated 3 February 2016, the applicant explained some of the background to the dispute and stated that there were ‘no known issues that the current tenants have reported’. The applicant advised that the authority had refused to issue the code compliance certificate due to the lack of inspections and had suggested to the applicant ‘we need to resolve this through [the] determination process.’
- 4.2 The applicant also noted that the previous determination concerning the studio had raised issues relating to window and roof flashings and ground levels; stating:
- I don’t have any dispute with the [authority] about any matters they raise. I’m willing to amend things that don’t meet consent requirements. I have already spent time and money on rectifying the current dwelling in line with [the previous determination] as they were both built in the same manner and at the same time.
- 4.3 The applicant provided copies of:
- the building consent and consent documentation
 - the authority’s inspection summary
 - the final inspection record dated 8 January 2016
 - the authority’s refusal to issue a code compliance certificate, dated 19 January 2016
 - various other statements and other information.
- 4.4 The authority made no submission, but provided electronic access to a web-based file, which contained some additional documents pertinent to this determination including:
- the original 1994 consent drawings
 - some correspondence with the applicant and the studio owners
 - the initial flashing repair proposal dated 28 July 2011.
- 4.5 A draft determination was issued to the parties for comment on 16 May 2016.
- 4.6 The applicant provided a response on 16 May 2016, accepted the draft without further comment.
- 4.7 Despite a reminder on 13 June 2016, the authority did not respond to the draft.

5. The expert’s report

- 5.1 As mentioned in paragraph 1.5, I engaged an independent expert to assist me. The expert is a member of the New Zealand Institute of Building Surveyors and inspected the house on 17 March 2016, providing a report dated on 5 April 2016. The parties were provided with a copy of the report on 14 April 2016.

5.2 General

- 5.2.1 The expert noted that the scope of his investigation was to assess compliance of the house. His investigations included discussions with the applicant and a meeting with the authority in order to obtain an overview of the situation and to view property records for both the house and the studio.

5.2.2 The expert met with the authority on 17 March 2016 and obtained inspection records. The authority explained that the request to separate the house and studio was an amendment to create a ‘staged’ consent.

5.2.3 The applicant explained to the expert that a code compliance certificate was sought and refused following a ‘partial inspection’ in January 2016, which in the applicant’s view seemed to be more about seeking a determination than fully inspecting the house.

5.3 The inspection records

5.3.1 The expert noted that only two inspections were recorded in 1994 during construction, with most of the later inspections from 2006 onwards ‘substantively related to the [studio] although some connection to the [house] can be read into the notes’. The expert added that this had caused confusion where similar issues between both dwellings were ‘recorded as both passed and failed.’

5.3.2 The expert assessed the final inspection record for the house and noted that:

- the roof was not inspected, despite a ladder being available on site
- although fully exposed and assessable, under-floor services were not inspected
- despite being in line with work undertaken and accepted for the studio, new cladding and window flashings installed to the house were not inspected
- there were no comments on work undertaken to remedy ground clearances
- the above supports the applicant’s contention that the inspection process was mainly about encouraging the applicant apply for a determination on the building’s compliance
- the inspection records appeared to accept smoke alarm installation, impervious internal surfaces, glazing, ventilation and guttering were compliant.

5.3.3 The expert concluded that areas requiring assessment were:

- the exterior building envelope (E2)
- internal moisture (E3)
- the structure (B1)
- insulation (H1)
- plumbing and drainage systems (E1, G12, G13)
- documentation for the free standing fire unit (C).

5.4 The exterior building envelope

The corrugated wall cladding

5.4.1 The expert noted that installation of the corrugated steel and its associated pre-formed metal corner junction flashings generally appeared to follow trade practices common at the time of original installation.

5.4.2 Following identification of the lack of clearances in the previous determination, ground clearances had been corrected by the applicant where necessary, with one minor area on the north wall to the lower bedroom still requiring attention. The expert also noted other areas that required attention, which are included within the summary in paragraph 5.6.2.

The windows

- 5.4.3 Conventional aluminium windows installed within lower areas of the corrugated steel cladding included timber facings covering jamb junctions. The expert noted that head flashings had been replaced and sill flashings installed in line with the work carried out on studio windows.
- 5.4.4 Head flashings projected beyond and overlapped the jamb facings. Pre-formed metal sill flashings appear to have been installed over original pre-formed metal sill sections and underlap jamb facings. However, the expert noted that about half of the windows lacked end caps to the sill flashings to prevent wind-blown rain entry.
- 5.4.5 Fixed glazing installed in high level timber windows and doors includes clear sealant used at glass/sill flashing junctions and also for various flashing connections. Except at the upper south east corner (see paragraph 5.5.3) the sealed junctions generally appear to be effective at present, but the expert noted that regular maintenance attention will be needed for the junctions to remain weatherproof.

The east deck

- 5.4.6 The upper deck extends from recessed sliding doors in the east wall of the lounge, with part of the deck situated above the unlined basement garage below. Floor joists cantilever beyond the basement wall at the same level as the interior floor level, with liquid-applied membrane (“LAM”) applied over a plywood substrate.
- 5.4.7 The membrane turns down the boundary joist at the edge of the deck, with balusters side-fixed through the membrane into the joist. The timber handrail is fixed against a timber window mullion at the south end and through the cladding at the north end.
- 5.4.8 A 50mm timber door threshold forms an upstand, covered with a metal flashing sealed against the deck membrane. The wall cladding also butts against the membrane with sealant applied at the junction. The boundary joist penetrates the cladding, with no saddle flashing and sealant applied for weatherproofing.
- 5.4.9 The expert inspected the underside of the deck recess from the unlined garage below, observing severe staining to the framing and substrates below the door threshold. The expert carried out invasive investigations as outlined in paragraph 5.5 and concluded that significant investigation and remediation was required.

The roof claddings

- 5.4.10 The corrugated roofing was unpainted, with a mix of unpainted and colour-coated flashings. The expert observed that installation appeared to follow trade practices common at the time of original installation and the roof had generally performed satisfactorily for more than 20 years.
- 5.4.11 The expert inspected all ceiling linings and noted no evidence of moisture damage except for two areas. One was at a minor leak some five years ago, which had since been repaired (supported by invasive investigation – see paragraph 5.5.4).
- 5.4.12 However, a leak has occurred at the bottom of the junction of the west lean-to roof with the upper glazed wall to the raised curved roof above the dining room. The bottom of the apron flashing is not closed off and also lacks a kick-out; allowing water to penetrate down to skirting level in the dining room.
- 5.4.13 The expert noted that the ‘chimney’ is a simple cover structure fitted over the roofing and does not involve ‘weathering junction issues’. However, he observed other areas that required attention, which are included within the summary in paragraph 5.6.2.

5.5 Invasive investigations

5.5.1 As outlined above, the expert identified evidence of past or current moisture penetration. Further invasive investigations were carried out to identify the extent, significance, cause(s) and associated damage.

5.5.2 Cut-out 1: the expert removed a section of lining at the bottom of the dining room wall (see paragraph 5.4.12) where elevated moisture levels were noted. The expert inspected the timber and took a sample for testing. The expert noted:

- 17% invasive moisture reading in the stud
- dampness and water staining to the stud and the back of the plasterboard
- laboratory analysis showed that Sample 1 ‘exhibited moderate brown rot’, with unsound wood that should be replaced.

5.5.3 Cut-out 2: the expert removed a small section of lining at the bottom of the south east corner of the lounge where elevated moisture levels were noted below window sills. The expert inspected the timber and took a sample for testing. The expert noted:

- 84% invasive moisture reading and very soft wet timber in the jack stud
- dampness and water staining to the back of the plasterboard
- analysis showed that Sample 2 ‘exhibited light brown rot and moderate soft rot’, with unsound wood that should be replaced
- removal of exterior cladding revealed some water staining to bottom plate and boundary joist but no apparent damage to the corner stud
- water entry and damage appeared very localised, so the cause is likely to be the jamb/sill junction directly above the jack stud.

5.5.4 Cut-out 3: the expert removed a small section of lining at the top of the south east corner of the lounge adjacent to the recessed deck doors where plasterboard damage was observed beneath a past roof leak (see paragraph 5.4.11). The expert inspected the timber and took a sample for testing. The expert noted:

- 11% invasive moisture reading in the corner stud
- some ‘minor old mould deposit’ but no signs of timber damage or decay
- laboratory analysis showed that Sample 3 ‘exhibited occasional hyphae⁶’ but the wood was sound and could be left in place.

5.5.5 Cut-out 4: the expert was able to view ‘clear evidence’ of moisture penetration and timber damage on the underside of the east deck framing and substrates. The expert inspected the timber and took a sample for testing. The expert noted:

- 18% to 47% invasive moisture levels deck and floor framing under the doors
- severe water staining to framing and deck/floor substrates
- laboratory analysis showed that Sample 4 taken from a cantilevered deck joist ‘exhibited moderate brown rot and moderate soft rot’, with unsound wood that should be replaced.

⁶ Too sparse to constitute incipient decay and sometimes found in supplier’s wood

5.6 Clause E2 Weathertightness: summary

5.6.1 Based on the invasive investigations, the expert considered that the following items required attention in regard to Clause E2 (in summary):

- further investigation of the east deck framing, substrates, membrane and associated junctions to determine appropriate remediation
- further investigation of the south east corner of the lounge to establish the cause(s) of the leak and the extent/significance of underlying timber damage
- the lack of ground clearance on the basement bedroom north wall
- the junction at the bottom of the north apron flashing to the raised curved roof.

5.6.2 The expert also identified the following areas which appeared to have performed to date; and recommended maintenance and/or attention as prudent measures to ensure wall and roof claddings continue to protect the structure in the future:

- the lack of cladding clearance to some lower apron flashings
- the lack of weatherproofing to the top of the meter box
- the lack of end caps at the ends of remediated window sill flashings
- ongoing maintenance of sealants to glass/sill flashing junctions
- ongoing maintenance of sealants to cladding penetrations
- the junctions of the deck handrails with the cladding
- the deteriorated membrane junction at the top of the south apron flashing to the raised curved roof
- deteriorating paintwork to timber fascia boards
- the lack of lap seals to the flat roof areas at the top of the curved roofs
- the lack of back flashings to the corrugated steel soffit linings to oblique eaves.

5.7 Clause B1: Structure

5.7.1 The expert noted that consent documentation includes structural engineering calculations and full foundation details. Despite some hidden elements of the structure, a detailed visual inspection of the interior and exposed basement sections allowed the expert to form a general opinion of the condition. The expert also noted that the authority was able to inspect visible elements during its final inspection.

5.7.2 In regard to the structure, the expert commented that:

- lower framing, floor joists, some bearers and structural pole connections are clearly visible and appeared to accord with the consent documents
- visible sections of foundation walls and footings appeared ‘sound and free from any visual defects
- plastered corners and wall/ceiling joints to interior linings show no evidence of cracks that would indicate structural stress from settlement
- the lack of visible ‘distress, settlement or structural movement’ indicates that the structure ‘has performed as designed over the past 22 years’.

5.8 Clause E3: Internal Moisture

- 5.8.1 The expert noted that shower bath/wall junctions were allowing water to penetrate and removed a timber back board to investigate further. The expert also inspected timbers below the bath, which were visible from the sub-floor area, observing:
- water stains to the top of the joist below the back board, where the corrugated metal lining allows moisture to pass the junction
 - 59% invasive moisture reading in the top of the joist below the back board
 - water stained framing and saturated particle board flooring below the junctions

The expert noted that as well as repairing the junction further investigation of the damaged framing and floor would also be needed.

5.9 Clauses E1 and G13: Site drains

- 5.9.1 The expert noted that separation of drainage systems was carried out in 2008 and was passed on 29 August 2008 (see paragraph 3.4). Consent documents and inspection records were not attached to the property file for the house and studio.
- 5.9.2 However the expert noted that ‘it is clear from the record and the advice’ from the applicant that drainage alterations were carried out and ‘signed off’; and applied to both the house and studio drainage.
- 5.9.3 The expert therefore concluded that the drainage separation work together with the revised as-built drainage shown in the updated site plan for the house, means that the drainage did not need to be included in the matters considered for determination.

5.10 Clauses G12 and G13: Interior plumbing and drainage

- 5.10.1 The expert noted that the applicant accepts that work is required to the hot water cylinder unit and venting of the laundry waste is required.
- 5.10.2 The expert noted that the remaining plumbing work is able to be inspected from the sub-floor; and considered that the history of use for more than 20 years indicates that the work is likely to be compliant.

5.11 Clause H1: Insulation

- 5.11.1 The expert was able to observe fibreglass wall insulation at several locations in the building – via the unlined basement areas, cladding removal to the south wall of the lounge, and lining removal to the south wall of the dressing room. The expert noted that the fibreglass was about 90mm thick as it filled the framing cavity.
- 5.11.2 Using the known insulated walls as a datum, the expert carried out thermographic investigations and found no variations or thermal anomalies in other exterior walls and in the ceilings – indicating that insulation is in place in walls and ceilings.
- 5.11.3 I also note that photographs of the subfloor show underfloor insulation installed in the form of reflective foil⁷ draped over floor joists, in accordance with the insulation standards⁸ and practices at the time of construction.

⁷ On 1 July 2016, the Ministry declared a ban on the installation and/or repair of foil insulation in residential buildings with existing electrical installations due to safety concerns associated with the method of attaching the foil to the building.

⁸ Relevant standard in 1994 was NZS 4218P:1977 Minimum thermal insulation requirements for residential buildings

6. Discussion

6.1 General

- 6.1.1 The original building consent was issued under the former Act, and accordingly the transitional provisions of the current Act apply when considering the issue of a code compliance certificate for work completed under this consent. Section 436(3)(b)(i) of the transitional provisions of the current Act requires the authority to issue a code compliance certificate if it 'is satisfied that the building work concerned complies with the building code that applied at the time the building consent was granted'.
- 6.1.2 An application can be made to the authority for a modification of durability requirements to allow durability periods to commence from the date of substantial completion in 1995. Although that matter is not part of this determination (see paragraph 1.6.2), I have taken the anticipated modification into account when considering the performance of the house as most elements have continued to perform for more than 20 years to date.
- 6.1.3 In order to determine whether the authority correctly exercised its power in refusing to issue a code compliance certificate, I must consider whether the building work complies with the Building Code. The following paragraphs consider the code compliance of the external building envelope.

6.2 The external envelope

- 6.2.1 The external envelope was substantially complete by 1996 and most materials and components are therefore more than 20 years old. As outlined in paragraph 6.1.2, I have taken the age of the claddings into account when considering the performance of the external building envelope.

Clause E2: Weathertightness

- 6.2.2 Taking account of the expert's report, the external envelope generally appears to have been constructed in accordance with expected trade practice and the manufacturer's instructions at the time of construction. However, some areas identified by the expert and outlined in paragraph 5.6.1 require further investigation and remedial work.
- 6.2.3 I also note the expert's additional recommendations outlined in paragraph 5.6.2 as to measures considered prudent in the circumstances. While I accept that these areas do not affect my conclusions on minimum compliance requirements for the claddings, I strongly suggest the owners consider their implementation either during the above remedial work or otherwise as on-going maintenance of the house. The reduction of future risks will improve longer-term durability and therefore help the claddings to continue protecting the underlying structure for its minimum durability requirement of 50 years.
- 6.2.4 I consider the expert's report establishes that the current performance of the building envelope is not adequate because there is evidence of significant moisture penetration into some of the timber framing. Given the extent of decay and the other evidence, I am also satisfied that the past performance was also not adequate for the minimum period required. Consequently, I am satisfied that the cladding does not comply with Clause E2 of the Building Code.

6.2.5 Pending satisfactory investigations to establish the extent and severity of decay to the framing followed by appropriate remediation, the structural decay damage found in three of the four timber samples also satisfy me that the house framing does not comply with Clause B1 of the Building Code.

6.3 Clause B2: Durability of the cladding and framing

6.3.1 The house is also required to comply with the durability requirements of Clause B2, which requires a building to satisfy all the objectives of the Building Code throughout its effective life. In particular the building envelope is required to satisfy Clause E2 for a minimum of 15 years although the expected life of the underlying framing is a minimum of 50 years; meaning that effective maintenance of the external envelope is required to ensure it protects the underlying structure for its minimum required life of 50 years.

6.3.2 Although the original corrugated steel claddings are now more than 20 years old, the expert's investigations have confirmed significant moisture ingress into some areas over an extended period. I take the view that such moisture penetration indicates that the faults in the building envelope have failed to meet the performance requirements of Clause E2 for the period set out in Clause B2 from the time the building work was substantially completed. Accordingly I consider the exterior building envelope has not complied with Clause B2 insofar as it relates to Clause E2.

6.3.3 In addition, because of the significant decay damage confirmed to some wall and deck framing and the likelihood of further undiscovered damage, I am also satisfied that the timber framed structure has not complied with Clause B2 insofar as it relates to Clause B1.

6.3.4 Because the identified moisture penetration and cladding faults occur in discrete areas, I am able to conclude that satisfactory investigation and rectification of areas outlined in paragraph 5.6.1 will result in the timber framing and the claddings being brought into compliance with Clauses B1, E2 and B2 of the Building Code.

6.3.5 The expert has commented on deterioration to various areas resulting from the lack of maintenance of the exterior of this house. 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 Ministry has previously described these maintenance requirements (for example, Determination 2007/60).

6.4 Conclusion

6.4.1 The expert has also investigated compliance of this house with other relevant clauses of the Building Code that are considered in this determination (see paragraph 1.4) and I accept his findings as outlined in paragraphs 5.7 to 5.11.

6.4.2 In summary, taking account of the expert's report, I conclude that remedial work, investigation and/or maintenance is necessary in respect of the following areas:

- the inadequate ground clearance to the basement bedroom north wall (B2)
- the inadequate junction at the bottom of the north apron flashing to the raised curved roof above the dining room (E2, B2)
- the inadequate bath/wall junctions (E3, B2)
- additional investigation prior to repairs to:

- establish the extent and significance of timber damage to the dining room framing below the apron flashing leak, by exposing framing and testing samples where there are signs of damage (B1, B2, E2)
- confirm the cause(s) of the leak that resulted in framing decay in the south east corner of the lounge and to establish the extent and significance of underlying timber damage (B1, B2, E2)
- establish the condition of the deck framing, substrates and associated bottom plates, by exposing framing and testing samples where there are signs of damage (B1, B2, E2)
- establish the extent and significance of floor framing and particle board damage below the bath leak (B1, B2, E3).

6.4.3 I consider that the expert's report and the other evidence, allows me to conclude that the remaining building work is complies with the Building Code.

6.4.4 Although I accept that items outlined paragraph 5.6.2 may be carried out either during the above remedial work or otherwise as on-going maintenance, I urge the owners to follow the expert's recommendations on prudent measures to ensure ongoing weathertightness.

7. The authority's decision to refuse to issue a code compliance certificate

7.1 In my view, the authority did not adequately inspect this house to assess compliance and no account was therefore taken of particular attributes such as the cladding type, workmanship and maintenance levels, risk features, history of performance and the current compliance level. Instead, the owner was given no specific reasons for the refusal, and no clear idea what was needed to obtain a code compliance certificate.

7.2 Had an appropriate inspection of this house been carried out in response to the request for a code compliance certificate, the authority should have been able to readily identify any defects requiring attention; without needing the applicant to apply for a determination. Any requirement for a determination should follow such an inspection, not precede it. The inspection it carried out on 8 January 2016 did not appear to address significant aspects of the building's construction that were readily able to be inspected.

7.3 Section 95A of the Act states that an authority must give an owner 'written notice of the refusal and the reasons for the refusal' to issue a code compliance certificate. In my view, that requires the authority to adequately identify the particular aspects of the building work that do not comply. In this case, the authority refused to issue a code compliance certificate because code compliance 'could not be established' due to the lack of inspections during construction in 1994.

7.4 In my opinion, the authority has failed to satisfy the requirements of section 95A as it did not attempt to identify whether the building work was code compliant.

7.5 If the authority believes code compliance has not been achieved in any given situation it must formally advise an owner of the reasons for the refusal and, if appropriate, issue a notice to fix requiring the building work to be brought into compliance with the Building Code.

8. What happens next?

- 8.1 I note that the building consent was issued to the applicant as the current owner of the house. The authority may issue a notice to a notice to fix that requires the applicant bring the house into compliance with the Building Code. The notice should include the investigations and defects identified in paragraph 6.4.2, and refer to any further defects that might be discovered in the course of investigation and rectification, but not specify how those defects are to be fixed – that is a matter for the applicant to propose and for the authority to accept or reject.
- 8.2 Alternatively, the authority may elect to deal with the matter via a notice issued under section 95A of the Act.
- 8.3 The applicant can then produce a response, to either the notice to fix or the notice issued under section 95A, in the form of a detailed proposal produced in conjunction with a competent and suitably experienced person, as to the rectification or otherwise of the specified matters. Any outstanding items of disagreement can then be referred to the Chief Executive for a further binding determination.

9. The decision

- 9.1 In accordance with section 188 of the Building Act 2004, I hereby determine that, in regards to the Building Code that was in force at the time the original building consent was issued in 1994:
- The timber wall framing does not comply with Clauses B1 and B2
 - the claddings do not comply with Clauses E2 and B2
 - the bathroom does not comply with Clause E3 and B2
- and accordingly, I confirm the authority's decision to refuse to issue a code compliance certificate.

Signed for and on behalf of the Chief Executive of the Ministry of Business, Innovation and Employment on 4 July 2016.

John Gardiner
Manager Determinations and Assurance