



Determination 2016/027

The refusal to issue a code compliance certificate for 14-year-old alterations to plaster-brick house at 526 Ellesmere Road, Ladbrooks, Christchurch



Summary

This determination is concerned with the compliance of 14-year-old additions to a plastered brick veneer house. This determination considers the authority's reasons for refusing the code compliance certificate, and whether the alterations comply with the requirements of the Building Code.

1. The matters 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 owners of the house, S and J Ware ("the applicants")
 - the Selwyn District 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 14-year-old extension and alterations to a house ("the alterations"). The refusal arose because the authority is not satisfied that the building work complies with certain clauses² of the Building Code (First Schedule, Building Regulations 1992); in particular in regard to the weathertightness of the claddings, given the age of the alterations.

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, 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 whether the authority was correct to refuse to issue a code compliance certificate for the reasons given in its letter dated 24 May 2012. In deciding this matter, I must consider:
- (a) Whether the external building envelope of the alterations comply with Clause B2 Durability and Clause E2 External moisture of the Building Code that was in force at the time the consent was issued. The building envelope includes the components of the systems (such as the plastered brick veneer, the weatherboard, the textured fibre-cement, the windows and the roof cladding) as well as the way the components have been installed and work together. I consider this in paragraph 7.
 - (b) Whether other items identified by the authority comply with relevant Building Code clauses: namely Clauses E1 Surface Water, E3 Internal moisture, G11 Gas as an energy source, G12 Water supplies, and G13 Foul Water. I consider this in paragraph 8.

1.5 Matters outside this determination

- 1.5.1 Except for the age of the alterations, when refusing to issue a code compliance certificate the authority limited its other concerns to items associated with the clauses outlined above (see paragraph 3.4.1). This determination therefore does not address other clauses of the Building Code.
- 1.5.2 I note that the owner will be able 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 July 2002. I leave this to the parties to resolve in due course.
- 1.5.3 During its final inspection, the authority also identified some items relating to the original house. Except for junctions with the latter, this determination is limited to the alterations described in the consent drawings.
- 1.5.4 Various records refer to a solid fuel heater installed in the original house, which is not considered in this determination.
- 1.6 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.

2. The building work

- 2.1 The building work consists of alterations to a detached house situated on a large level rural site in a high wind zone for the purposes of NZS 3604⁴. The expert takes the main entry as facing east and this determination follows that convention. Although fairly simple in plan and form, the building work incorporates complex inter-cladding junctions and is assessed as having a medium weathertightness risk.

³ Under section 177(2)(d) of the Act

⁴ New Zealand Standard NZS 3604:1999 Timber Framed Buildings

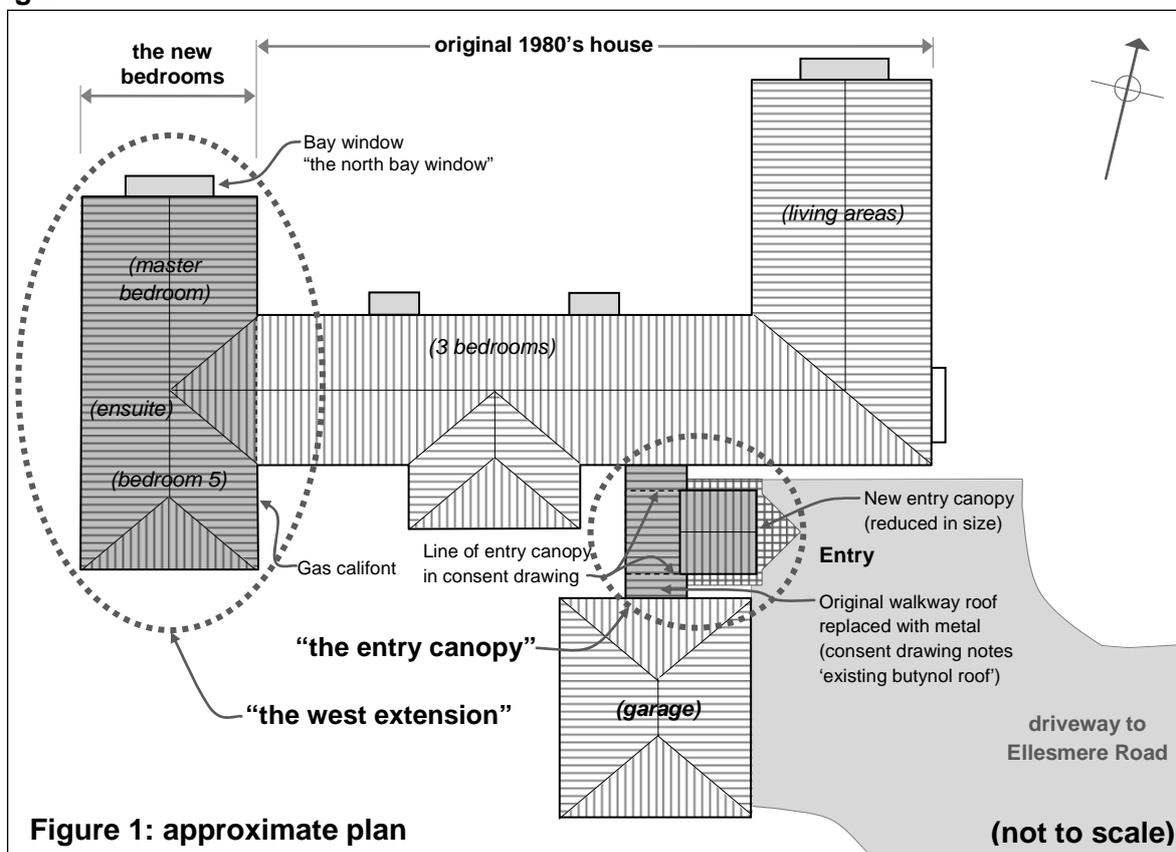
2.2 The original 1980's house included three bedrooms and a garage building attached to the house with a covered walkway. Construction is generally conventional light timber frame, with concrete foundations and floor slabs, plastered brick veneer cladding, timber weatherboards above windows and below the bay windows, aluminium joinery and profiled metal roofing.

2.3 The addition extends the original house as shown in Figure 1; using the same form and materials as the original house. Except for a 150mm verge overhang to the north gable end to match the original north elevation, the 45° pitch roof to the west extension has no eaves or verge overhangs.

2.4 The altered house

2.4.1 The west extension forms a new bedroom wing and the alterations to the existing house include the construction of a new entry canopy to the original covered walkway on the east elevation. The two areas of new building work are shown shaded in Figure 1.

Figure 1



2.4.2 The alterations include:

- the west extension, which includes:
 - a master bedroom, ensuite bathroom and bedroom
 - a fifth bedroom
 - associated minor alterations to the west end of the original house
- the entry canopy, which includes:
 - removal of the original entry joinery
 - new wall and joinery enclosing the east side of the walkway

- gabled roof to east of original walkway
 - original butyl rubber walkway roof replaced with profiled metal.
- 2.4.3 Construction is generally conventional light timber frame construction to match the original house, with reinforced concrete slab and foundations, aluminium joinery, profiled metal roofing, plastered brick veneer wall claddings and weatherboard panels to some areas.
- 2.4.4 The original house was constructed during the 1980's and, as such, the original framing is likely to be boracic treated to resist fungal decay. The expert was unable to identify timber treatment to external framing of the extension. Given the lack of evidence and the date of framing installation in 2001, I consider that the framing is unlikely to be treated to a level that will provide ongoing resistance to fungal decay.

2.5 The wall claddings

- 2.5.1 Most external walls of the west extension are conventional brick veneer, which is plastered and incorporates a 40mm drained and ventilated cavity. The brick veneer extends full height up to eaves height except above windows and doors.
- 2.5.2 A bay window projects from the north wall of the extension, with horizontal rusticated weatherboard cladding below the windows and a panel of weatherboards to the gable end in line with the bay window roof. Weatherboards are also installed above the remaining doors and windows. The weatherboards appear to be direct-fixed through the building wrap to the framing.
- 2.5.3 At the sides of the bay window, monolithic cladding infills the remaining triangular sections above the brick veneer. Monolithic cladding in the form of textured fibre-cement is also used at gable ends to the entry canopy roof. The textured fibre-cement cladding consists of 7.5 mm thick fibre-cement sheets fixed through the building wrap to the framing, and finished with an applied textured coating system.

3. Background

3.1 General

- 3.1.1 The authority issued a building consent (No. 010114) to the owners on 7 March 2001 under the Building Act 1991. However, I note that the consent drawings are stamped as approved on 12 February 2001 and construction appears to have commenced in early February. I note that the two sheets of consent drawings are rudimentary, with minimal description or detail.
- 3.1.2 The authority carried out the following inspections:
- Foundations on 9 February 2001 (which passed).
 - Pre-pour slab on 12 March 2001 (which passed).
 - Pre-line on 3 April 2001 (which passed).
 - Post-line bracing and half-height veneer on 27 April 2001 (which passed).
 - Sanitary drainage on 9 July 2002 (which passed).
- 3.1.3 With the delayed completion of sanitary drainage from the ensuite, it appears that the extension was substantially completed by about June 2002 although some finishing had yet to be completed.

3.2 The 2005 final inspection

3.2.1 According to the owners, final completion of interior finishing work was protracted and the authority was not advised of the building work's completion until 2005. The authority carried out a final inspection on 18 February 2005 and identified the following three items to be attended to:

- lack of weep and ventilation holes to plastered brick veneer
- ducting incomplete from ensuite ventilation
- cracks to some areas of plaster.

3.2.2 Although the outstanding items were apparently completed following the inspection, the owners did not call for a re-inspection until selling the property in 2016 when they applied for a code compliance certificate for the building work.

3.3 The 2016 inspection

3.3.1 In response to the applicants' request for a code compliance certificate, the authority carried out the second final inspection on 15 March 2016, and the inspection notice listed 27 items requiring attention, including (in summary, with the authority's reference numbers and associated clauses shown in brackets):

- in regard to surface water (E1):
 - roof discharge not directed into drainage channel (1.15)
 - inadequate sump installation (1.16)
- in regard to claddings (E2):
 - cracks to textured fibre-cement at entry gable ends (1.4, 1.27)
 - unsealed inter-cladding and joinery junctions (1.5, 1.6, 1.9, 1.18)
 - lack of fall to flashing over veneer at entry (1.7)
 - concrete entry columns/canopy junctions (1.8)
 - unsealed pipe penetrations (1.10, 1.26)
 - deteriorated barge boards (1.11)
 - debris in gutter (1.12)
 - unsealed gaps (1.14, 1.17)
 - bay window membrane: lack of fall, crack, gap, nailing (1.19 to 1.22)
 - open corner mitres to bay window weatherboards (1.23)
 - damaged mitre to aluminium bay window (1.24)
- in regard to the ensuite (E3):
 - unsealed vanity units (1.1)
 - chipped tile to shower floor (1.3)
- veneer vent too close to gas water heater (G11, 1.13)
- lack of insulation to water pipe (G12, 1.25)
- lack of fall to ensuite vanity waste pipe (G13, 1.2).

3.3.2 The inspection record stated that a code compliance certificate could not be issued 'until compliance with all relevant performance requirements' of the Building Code was achieved and noted that the building work did:

...not comply with the following clauses of the New Zealand Code current at the time the building consent was issued/granted: B2 (Durability), E1 (Surface Water), E2 (External Moisture), E3 (Internal Moisture), G11 (Gas as an Energy Source), G12 (Water Supply), G13 (Foul Water).

3.4 The refusal to issue a code compliance certificate

3.4.1 In a letter to the owner dated 5 April 2016, the authority noted that the building consent had been issued in March 2001 but no application for a code compliance certificate had been made until February 2016. The authority refused to issue the code compliance certificate for the following reasons (in summary):

- the lack of compliance with the Building Code clauses identified in the final inspection, and
- because of the time elapsed between the issuing of the building consent and the final inspection, the authority considered that it was 'unable to meet its statutory obligation in terms of section 94' of the Act.

3.5 The authority apparently advised the applicants to seek a determination on the matter and the Ministry received an application for a determination on 14 April 2016. The Ministry sought additional information from the applicants, which was received on 20 April 2016 (see paragraph 4.2).

4. The submissions

4.1 The applicants outlined the background to the situation, noting that completion of the ensuite had been delayed due to financial constraints. All finishing work had been completed by 2005 and the authority carried out a final inspection, which identified three items to be attended to. These had been completed immediately but a re-inspection had not been requested. On arranging to sell the property in 2016, they found that a code of compliance certificate was required to complete the sale and they contacted the authority. After a second final inspection, the authority refused to issue a code compliance certificate 'due to the extended time frame' and the items identified in the inspection.

4.2 In a subsequent email to the Ministry, the applicants explained that they had contacted the authority after receiving the refusal to ask whether a code compliance certificate would be issued if the items identified in the final inspection were attended to. The authority's official 'stated no they wouldn't and referred us to Determinations as they would be guided by their decision.'

4.3 The applicants provided copies of:

- the consent drawings, specification and truss drawing
- the building consent for the alterations
- the inspection records
- the Land Information Memorandum for the property
- the authority's refusal to issue a code compliance certificate dated 5 April 2016
- various statements and other information.

4.4 In an email to the Ministry dated 21 April 2016 the authority advised that it could issue a code compliance certificate when:

1. The council was satisfied, on reasonable grounds, that the building work complies;
- or
2. pursuant to section 19(1)(c)⁵ of the Act.

4.5 The draft determination was issued to the parties for comment on 13 June 2016.

4.6 The applicant responded on 19 June 2016 accepted the draft noting that:

- The entry canopy has ‘worked perfectly for the last 15 years and cannot see any reason for changing this, the flashings will be monitored as per ongoing maintenance’
- Rectification of the fibre-cement cladding to the west gable of the entry canopy was being ‘worked on’.
- The bay window membrane has been replaced to the correct fall ‘builders Producers Statements and photographs available on request’.
- ‘The flashings above the gas water heater have been replaced ... drawings, photographs available on request.’

4.7 The authority responded to the draft on 29 June 2016. The authority did not accept the draft noting:

- The authority had not received a copy of the application⁶. The expert’s report was headed an ‘addendum’ report which inferred additional material had been provided which it had not seen.
- The authority considered a matter for determination was whether it had exercised its power correctly in refusing the code compliance certificate in addition to whether the work was compliant or not.
- The authority described the background to the consent, provided a summary of the inspections and their outcome, and the steps taken in response to the applicant seeking a code compliance certificate.
- The authority provided photographs of the work as it had inspected in March 2016. (It is noted that in many instances the matters described in photographs had been remedied by the applicant before the expert’s site inspection.)
- The moisture readings of the timber framing taken by the expert were not stated in his report. The authority submitted that the framing should have been tested to confirm it was ‘free of decay’.
- The authority questioned many of the determination’s findings in relation to compliance, in particular:
 - the effect of the damage to the window sash (refer 5.5.8, final bullet point)
 - the compliance of the roof and cladding to the entry canopy (refer 5.5.4)
 - the effect of broken tile to the shower (refer 5.6.2)
 - the area of paving also discharging into the surface water sump in addition to the roof (refer 5.4)

⁵ (Section 19(1)(c) is in relation to code compliance being established by a determination to that effect issued by the Chief Executive.

⁶ The application and covering letter was sent to the Authority on 30 June 2016. The remaining information submitted with the application was from Council’s records.

- the lack of scribes to the weatherboards at the junction with the plastered brick (repaired before the expert's inspection)
 - the compliance of the membrane roof to the bay window (refer 5.5.8, 4th bullet point).
- 4.8 In an email to the Ministry dated 1 July 2016 the authority requested that the determination consider whether the authority was correct in its decision to refuse to issue the code compliance certificate 'based on the evidence/observations to hand at the time of that decision' was made. The authority would issue the code compliance certificate, with an amendment to Clause B2.3.1, if directed to do so.
- 4.9 I have taken account of the submissions and amended the determination as appropriate. The authority has requested that the determination should find it had exercised its powers correctly in refusing the code compliance certificate on the basis of the inspection undertaken in March 2016.
- 4.10 The outcome of that inspection and the refusal of the code compliance certificate was conveyed to the applicants in the authority's letter dated 5 April 2016 (refer paragraph 3.4). The letter appropriately identified Building Code clauses that it did not believe were compliant that time, and I consider the authority exercised its powers correctly in this respect. However, it also stated that a reason for the refusal was the time that had elapsed between the date of the consent being issued and the final inspection. This is not a valid reason for refusing to issue a code compliance certificate under section 94 of the Act.

5. The expert's report

5.1 General

- 5.2 As mentioned in paragraph 1.6, 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 5 May 2016, providing a report⁷ completed on 30 May 2016 which was provided to the parties on 31 May 2016.
- 5.2.1 The expert noted that the scope of his inspection was to assess 'provide an assessment of the matters' raised by the authority and to form a view as to code compliance of the alterations, taking into account the 'age, risk profile and performance in use since completion.
- 5.2.2 The expert generally considered construction quality in the extension to be 'reasonably good apart from areas identified in his report and the interior was finished to 'an acceptable trade standard'. However, some detailing on the entrance canopy 'was not completed to the same standard as the west extension', with the junction between the new roof and the original flat walkway roof 'very poorly executed and reliant upon flexible sealant'.
- 5.2.3 The expert was advised that minor cosmetic damage had occurred during the series of earthquakes since 2010 and repairs had been carried out about two years ago. The expert noted that there were no signs of 'significant movement in the structure and no doors were noted as sticking', with no evidence of any failure to comply with Clause B1 Structure.
- 5.2.4 The expert noted that the west extension generally accorded with the consent drawings. However, significant changes to the entry area include:

⁷ The report was headed an 'addendum' report in error. The report dated 20 May 2016 was the only report completed.

- entry glazing to east elevation reduced from that shown in consent drawings
- walkway roof clad in profiled metal not butyl rubber as shown in consent drawings
- canopy roof not extended across walkway roof as shown in truss drawing.

5.3 The expert assessed the list of concerns identified by the authority in its final inspection (see paragraph 3.3.1), responding in detail to each item in the list as summarised below.

5.4 Clause E1 Surface Water (Items 1.15, 1.16)

5.4.1 The expert noted that a riser had been fitted to the open channel drain on the east wall of the master bedroom and the downpipe discharges into the riser (Item 1.15).

5.4.2 The expert noted that the installed sump (Item 1.16) did not accord with Type 1 or Type 2 sump shown in the acceptable solution E1/AS1. He therefore considered the requirements for inlets to drains for surface water other than roof water as set out in paragraph 3.6 of E1/AS1, which requires:

- a) A grating, hinged or removable for maintenance access...
- b) Capacity at the bottom for settlement of silt and debris, and
- c) A submerged (or trapped) outlet which prevents floatable solids entering the drain.

5.4.3 In regard to the 'custom formed' sump, the expert observed the following:

- a channel drain on the east wall of the master bedroom runs into the sump, which has a concrete base and three sides (with uPVC to fourth side) and a cast aluminium grating to the top
- the outlet is a surface water pipe with slots cut into the side and capped with a recessed grate usually intended for use with membrane roofs
- the arrangement fully meets E1/AS1 3.6 (a) and (b) as the upper grate prevents most debris from entering the recess and the lower grate has smaller openings to further limit debris from entering the pipe
- if the sump did block, the overflow would discharge into the garden. The floor of the extension is about 150mm above the top of the sump. The surface water discharges into an open ditch adjacent the road.

5.4.4 The expert concluded that the sump system as installed complies with the performance requirements of Clause E1.

5.5 Clauses E2 Weathertightness and B2 Durability (Items 1.4 to 1.14, 1.17 to 1.27)

5.5.1 The expert inspected the external building envelope of the west extension and the entry alterations, taking into account the age of the building work and the risks applying for particular junctions and intersections.

Moisture investigations

5.5.2 The expert noted that the alterations had been carried out 'when untreated timber was allowed and in common use'. However, no destructive investigations and sample testing were carried out to confirm whether untreated timber framing had been used for external walls.

5.5.3 The expert observed no evidence of moisture penetration on the interior of external walls, although he also noted that the interior had been ‘completely redecorated’ about two years ago. The expert took numerous non-invasive and some semi-invasive moisture readings into skirtings, linings and window junctions, which were ‘all found to be well within an acceptable range’ at about 14% maximum.

The entry canopy

5.5.4 In regard to the entry alterations, the expert noted that:

- the metal roof to the walkway slopes towards the gable end of the entry canopy, allowing water to pool against the apron flashing at the junction
- the junction between the canopy roof and original walkway roof is poorly executed and reliant on sealant for weathertightness, with the sealant fully exposed to sunlight and unlikely to provide long term protection
- a large crack to the west gable end of the canopy has been sealed with exposed sealant, which is unlikely to provide long term weathertightness (Item 1.27).

5.5.5 I note that the original roof to the walkway is noted in the consent drawing as butyl rubber, which I assume to have been replaced with the profiled metal roof as part of the subject building work. I also note that the reduction in size of the entry canopy from that shown in the consent truss drawing has resulted in the junction with the adjacent roof needing to perform the function of an internal gutter.

5.5.6 The expert also made the following comments:

- Gaps and cracks to cladding have now been sealed (Item 1.4).
- Sealant has been applied to the junction of the entry joinery with the plastered brick veneer. The sealant is generally sheltered from sunshine and there is no evidence of moisture penetration (Item 1.5).
- Sealed deflector flashings have been added to mitigate the effect the back fall to veneer flashings. Despite the lack of fall, the area is sheltered, with no evidence of moisture penetration (Item 1.7).
- There is no evidence of deterioration in the timber at the top of concrete columns, which has now been sealed against moisture wicking from the concrete with sealant applied to the junction. (Item 1.8).
- The rear fascia board has been painted (Item 1.11).

The west extension

5.5.7 The expert noted that the flashing above the gas water heater slopes back towards the building and allows water to pond. Although there is no evidence of associated moisture penetration, the expert recommended a metal over-flashing with end turn-ups be installed to maintain long term weathertightness.

5.5.8 The expert noted that the following appeared satisfactory in the circumstances, given the lack of evidence of associated moisture penetration to date:

- All pipe penetrations have now been sealed (Item 1.10, 1.26).
- Gaps have now been filled (Item 1.17).
- Inter-cladding junctions have now been sealed (Item 1.9, 1.18).
- Although the 1° fall to membrane roof above the bay window is minimal, the roof area is small and there are no seams to impede water run-off (Item 1.19).

- Despite the deterioration of the bay window membrane and substrate nailing, there is no evidence of associated moisture penetration (Item 1.20).
- There was no visible hole to the membrane (Item 1.21).
- The protruding nail was temporary and has been removed (Item 1.22).
- Mitres to bay window weatherboards have now been sealed and painted, but will need regular ongoing maintenance to ensure durable weathertightness (Item 1.23).
- Although a mitred corner of a sash to the bay window is slightly dented, the damage is cosmetic and is not likely to affect weathertightness as the junction is sheltered by the fascia and any water will drain out at the bottom (Item 1.24).

5.5.9 In regard to the bay window, the expert noted that the membrane roof is due for replacement, as it is perished at the outer edge and substrate nails are lifting and pushing against the membrane. The expert recommended that, when the membrane is replaced, the substrate should be refixed, the fall should be increased and the junction with the masonry veneer should be made durably weathertight.

Conclusions

5.5.10 In regard to cladding maintenance, the expert noted that many junctions and intersections rely on sealant, which will rely on regular ongoing inspection and maintenance to maintain long term weathertightness.

5.5.11 The expert concluded that, despite ‘numerous areas where more care and attention to detail’ would currently be expected during construction, there was no evidence of moisture penetration after almost 15 years.

5.6 Clause E3 Internal moisture (Items 1.1, 1.3)

5.6.1 The expert noted no evidence of any breach of the requirements of Clause E3, with the ensuite vanity unit now satisfactorily sealed (Item 1.1).

5.6.2 The expert also noted that the chipped tile to the ensuite shower floor appears to have been repaired and sealed into place (Item 1.3). It is not clear on what basis the chipped tile was considered a breach of Clause E3.

5.7 Clause G11 Gas as an energy source (Item 1.13)

5.7.1 The expert noted no evidence of any breach of the requirements of Clause G11.

5.7.2 The expert noted that the vents to the brick veneer cavity adjacent to the gas water heater had now been sealed and the appliance therefore complied with Clause G11 in regard to its objective in G11.1(a) to ‘safeguard people from injury arising from the use of gas as an energy source’

5.7.3 I note that this therefore now also complies with Clause C2.3, which states that:

Fixed appliances using controlled combustion and other fixed equipment must be designed, constructed and installed so that there is a low probability of explosive or hazardous conditions occurring within any spaces in or around the building that contains the appliances.

5.8 Clause G12 Water supplies (Item 1.25)

5.8.1 The exterior portion of the water supply pipe to the ensuite had now been insulated to provide protection from freezing in accordance with G12/AS1 section 7.2.1(a),

which notes that where ‘there is the likelihood of freezing, hot and cold water supply systems... ..piping outside of the building thermal envelope shall be insulated’.

5.9 Clause G13 Foul water (Item 1.2)

5.9.1 The expert noted that the last 50mm of wastepipe from the ensuite vanity unit appeared to have a 2mm rise before dropping into the pipe in the wall. However, he also noted that:

- the amount of water that could pool in the wastepipe is insignificant.
- most of the wastepipe has an appropriate fall and there is no detectable odour.

5.9.2 The expert therefore considered that the waste pipe complies with Clause G13 in regard to its objective in G13.1(b) for the safe disposal of foul water to protect against ‘loss of amenity due to the presence of unpleasant odours’.

5.10 Summary

5.10.1 Taking account of the alterations’ age, risk, general condition and past performance, the expert concluded that the building work complies with the building code that applied when the building consent was issued.

5.10.2 The expert considered that the claddings had already met the minimum 15-year durability required by the Building Code. However, in order to ensure ongoing weathertightness, the expert recommended that the following areas be attended to:

- The junction of the entry canopy with the walkway roof.
- The crack in the textured fibre-cement to the entry canopy west gable end.
- For the bay window membrane roof:
 - deterioration of the membrane
 - substrate nails lifting
 - junctions of the membrane with the adjacent plastered brickwork.
- The flashing above the gas water heater.

(It is noted that some of these items have since been attended to by the applicant.)

6. Compliance of the alterations

6.1 I note that the building consent considered in this determination was issued under the former Act, and accordingly the transitional provisions of the 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 only if it ‘is satisfied that the building work concerned complies with the building code that applied at the time the building consent was granted’.

6.2 In its refusal to issue a code compliance certificate, the authority stated that the time elapsed between the date of the building consent in 2001 and the final inspection in 2016 meant that it was ‘unable to meet its statutory obligation in terms of section 94’ of the Building Code. Section 94 sets out the ‘Matters for consideration by building consent authority in deciding the issue of code compliance certificate’ and those matters make no reference to the amount of time elapsed since a building consent was issued.

- 6.3 In order to determine whether the authority was correct to refuse to issue a code compliance certificate for the extension, I must consider whether the consented work complies with the Building Code.
- 6.4 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 2002. Although that matter is not part of this determination (see paragraph 1.5.1), I have taken the anticipated modification into account in this determination.

7. The compliance of the external envelope

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

7.2 Weathertightness risk

- 7.2.1 This house has the following environmental and design features, which influence its weathertightness risk profile:

Increasing risk

- the house is in a high wind zone
- the house has three different wall claddings with some complex junctions
- weatherboards and the monolithic cladding are fixed directly to the framing
- most walls have no roof overhangs to shelter the claddings
- external wall framing may not be treated to a level that provides sufficient resistance to decay if it absorbs and retains moisture.

Decreasing risk

- the house is single-storey and simple in plan and form
- most walls are clad in brick veneer over a drained cavity.

- 7.2.2 Using the E2/AS1 risk matrix to evaluate these features, elevations are assessed as having a medium weathertightness risk rating. If current E2/AS1 details were adopted to show code compliance, drained cavities would be required for the monolithic and weatherboard claddings. However, this was not a requirement at the time of construction in 2001.

7.3 Weathertightness performance

- 7.3.1 Inspection records indicate that the exterior claddings were installed prior to June 2001 (see paragraph 3.1.2) and I have taken that into account when considering the weathertightness performance of the external envelope as the claddings appear to have continued to perform for the 15 years required.
- 7.3.2 Generally the claddings appear to have been installed in accordance with average trade practice. However, I note the expert's comments in paragraph 5.10.2 on items requiring attention to ensure ongoing weathertightness and I concur with his recommendations.

7.4 Weathertightness conclusion

- 7.4.1 I consider the expert's report establishes that the current performance of the building envelope is adequate because there is no evidence of moisture penetration into the timber framing. Consequently, I am satisfied that the external building envelope currently complies with Clause E2 of the Building Code.
- 7.4.2 The alterations are 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, and that includes the requirement for the extension to remain weathertight. The durability requirements of Clause B2 include a requirement for wall claddings to remain weathertight for a minimum of 15 years and for timber framing to remain structurally adequate for a minimum of 50 years.
- 7.4.3 The wall claddings are now about 15 years old and the expert has found no evidence of past or current moisture penetration. I am therefore able to conclude I am satisfied that the claddings have already met the durability requirements of Clause B2. However, I comment on the need for ongoing maintenance in paragraph 7.5.
- 7.4.4 It is emphasised 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 system will be code compliant in another situation.

7.5 Overdue maintenance

- 7.5.1 Although a modification of durability provisions will mean that wall claddings have met, or almost met, the minimum life required by the Building Code, the expected life of the building as a whole is considerably longer. Careful maintenance is therefore needed to ensure that claddings continue to protect the underlying framing for its minimum required life of 50 years for the structure.
- 7.5.2 The expert has noted that numerous junctions are reliant on sealant for weatherproofing and careful monitoring and maintenance is needed to ensure these junctions remain weathertight. Some maintenance is considered by the expert to be overdue, refer paragraph 5.10.2.
- 7.5.3 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, 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. The remaining items of compliance

- 8.1 Taking account of the expert's report and the other evidence, I am satisfied that the areas identified by the authority in its final inspection of the alterations have either been satisfactorily attended to, or are adequate in the circumstances.
- 8.2 I am therefore satisfied that the alterations comply with the associated Building Code clauses in force at the time of construction; namely Clauses E1 Surface Water, E3 Internal moisture, G11 Gas as an energy source, G12 Water supplies, and G13 Foul Water.

9. What happens next?

- 9.1 The parties should agree on a date in 2002 when the house was substantially completed and the authority should amend the building consent to the effect that Clause B2.3.1 applies from that date instead of from the time of issue of the code compliance certificate for all the building elements.
- 9.2 I also note there are variations in the as-built extension from the consent drawings (see paragraph 5.2.4), and I leave appropriate documentation of those changes to the parties to resolve in due course.

10. The decision

- 10.1 Providing Clause B2 is appropriately modified to allow the durability provisions to apply from the substantial completion of the house in 2002, in accordance with section 188 of the Building Act 2004, I hereby determine that the alterations comply with the Building Code and accordingly I reverse 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 13 July 2016.

John Gardiner
Manager Determinations and Assurance