



Determination 2013/025

The refusal to issue a code compliance certificate for a 12-year-old house with monolithic cladding at 9 Harvey Street, Taupo



1. The matters to be determined

1.1 This is a determination under Part 3 Subpart 1 of the Building Act 2004¹ (“the Act”) made under due authorisation by me, John Gardiner, Manager Determinations and Assurance, Ministry of Business, Innovation and Employment (“the Ministry”)², 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 Robertson (“the applicants”)
- the Taupo 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 12-year-old house because it was not satisfied that the building work complied with certain clauses³ of the Building Code (First Schedule, Building Regulations 1992). The authority’s concerns about the compliance of the building work relate primarily to the weathertightness of the exterior building envelope.

1.4 The matter to be determined⁴ is therefore whether the authority was correct to refuse to issue a code compliance certificate. In deciding this, I must consider:

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

² Within this determination, the term “Ministry” includes the predecessors of the Ministry, which are relevant to the background of the subject house; namely, the Building Industry Authority and the Department of Building and Housing.

³ In this determination, references to sections are to sections of the Act and references to clauses are to clauses of the Building Code.

⁴ Under sections 177(1)(b) and 177(2)(d) of the Act

1.4.1 Matter 1: The external building envelope

Whether the external claddings to the addition (“the claddings”) comply with Clause B2 Durability and Clause E2 External Moisture of the Building Code. The claddings include the components of the systems (such as the wall claddings, the windows, the roof claddings and the flashings), as well as the way the components have been installed and work together. (I consider this in paragraph 6.)

1.4.2 Matter 2: The structural bracing

Whether the bracing elements comply with Clause B1 Structure (I consider this in paragraph 7).

1.4.3 Matter 3: The durability considerations

Whether the building elements comply with Clause B2 Durability of the Building Code, taking into account the age of the house (I consider this in paragraph 8).

1.5 The building consents

1.5.1 The authority’s correspondence regarding this house refers to the following building consents:

- BC 980785 issued on 14 October 1998 for ‘new dwelling’
- BC 041273 issued on 17 September 2004 for ‘Reliven BC 980785’.

1.5.2 Although the house was substantially completed prior to the issue of the second consent, subsequent correspondence refers to both consent numbers. I address the question of the second consent in paragraph 9.

1.6 In making my decision, I have considered the submissions from 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 a detached house that is three-storeys-high in part and is situated on a west-sloping site in a high wind zone for the purposes of NZS 3604⁵. The expert has taken the basement garage doors as west-facing, and this determination follows that convention. The house is fairly complex in plan and form; and is assessed as having a medium to high weathertightness risk.

2.2 The partial basement garage and storage area is specifically designed; with reinforced concrete piles, foundations and floor slab, expanded polystyrene (EPS) block walls with reinforced concrete infill, and steel beams supporting the suspended composite metal/concrete floor slab of the ground floor. The remaining construction is generally conventional light timber frame, with monolithic wall cladding, clay tile roofing and aluminium windows. Interior walls are lined with solid plaster applied over wood fibre⁶ backing sheets (“the backing sheets”).

2.3 The 25° pitch gable roof rises from the single-storey east elevation to accommodate a master bedroom, with a dormer window over the ensuite bathroom, storerooms within the roof slope and a void open to the east entry hall below. The roof extends

⁵ New Zealand Standard NZS 3604:1999 Timber Framed Buildings

⁶ ‘Triple-S’ sheet

to form a triangular overhang at the entry, which is supported on a monolithic-clad column and small lean-to canopies form 'eye brows' over some windows. Apart from 600mm eaves above the upper deck, there are no eaves or verge projections. Monolithic-clad framed chimneys extend up the north and west walls

- 2.4 The cladding is a monolithic cladding system described as stucco over a solid backing. In this instance it consists of fibre-cement sheets fixed through the building wrap directly to the framing timbers, and covered by a slip layer of building wrap, metal-reinforced solid plaster and a flexible paint coating.

2.5 The decks

- 2.5.1 A master bedroom deck is situated above the ground floor living room on the northwest corner, with monolithic-clad balustrades that step down to form upstands below glass balustrades around the northwest corner. The membrane deck floor slopes to the north, with a continuous drainage gap provided beneath the upstand.
- 2.5.2 On the lower north elevation, the ground floor slab extends from the dining room to form a semi-enclosed 'living porch', with timber shutters installed above a stone-clad nib and a lean-to glazed roof.

2.6 Timber treatment

- 2.6.1 The stamped consent drawings provided by the authority include no reference to treatment of any timber framing. However unstamped drawings provided by the applicants include additional notes and details calling for framing to deck barriers, 'deck area' and chimneys to be 'H3 Tan framing'.
- 2.6.2 The expert forwarded drillings to a testing laboratory for analysis, and the analysis confirmed that the bottom plate from the chimney sample was boracic-treated to the equivalent of H1.2 and the balustrade framing as CCA treated to an equivalent of H3.2. I therefore consider that the chimney and deck framing of this house is likely to be treated to a level that will provide resistance to fungal decay.
- 2.6.3 However, the expert could find no evidence of treatment to other framing and, given the date of installation in 2000, I am unable to determine whether the remaining wall framing of this house is treated.

3. Background

- 3.1 The authority issued a building consent (No. BC 980785), which I have not seen, under the Building Act 1991 ("the former Act").

3.2 Construction of the house

- 3.2.1 The basement and structural steel up to ground floor level appear to have been completed by mid-1999 and the structural engineer provided revised drawings and producer statement dated 21 June 1999 for the amendments to the structural design. The last 1999 inspection recorded was of steelwork to the first floor on 24 June 1999.
- 3.2.2 In a letter dated 14 February 2000, the authority noted that it had not been advised of progress and the inspection summary records a phone call from the applicants on 15 February 2000 advising 'up to framing stage – project continuing'.

- 3.2.3 On 12 September 2000, the authority gave 14 days notice that the building consent would lapse as Section 41 of the Building Act 1991 required reasonable progress to be made over a 12 month period. The applicants responded on 18 September, explaining that progress had been delayed due to other building commitments but windows were being fitted and ‘all efforts will be made to effect work for the next inspection.’ On 22 September, the authority advised the applicants that the consent
- ...has now been extended to 20 February 2001.
Should the work not be completed and a Code Compliance Certificate sought by that date the consent will lapse without further notice.
- 3.2.4 The authority carried out pre-line inspections on 6 November 2000 and the inspection summary noted that solid plastering had not yet started as backing sheets were incomplete and roof to wall flashings were unfinished. The record also noted ‘bracing as detailed’ (see paragraph 4.4). No post-line inspection was carried out.
- 3.2.5 The last inspection recorded on 12 March 2001 was of sewer connections and the applicants appear to have substantially finished and occupied the house shortly after. However, no final inspection was sought and a note dated 17 May 2001 in the inspection summary states ‘lapsed see letter on file’. I have not seen a copy of that letter and I am not aware of any further correspondence for the next three years.

3.3 The change in the Acceptable Solution for stucco

- 3.3.1 At the time the cladding for this house was installed in 2000/2001, the Acceptable Solution E2/AS1⁷ for stucco cladding systems included the incorporation of vertical battens to provide a cavity behind stucco installed on non-rigid backings only. At that time, no cavity was required for stucco on rigid backing as consented and used on this house.
- 3.3.2 On 9 February 2004, the predecessor of the Ministry announced⁸ an ‘interim amendment to E2/AS1⁹’ which required new building consents issued for buildings with stucco claddings on rigid backing intended to be ‘built to the Acceptable Solution’ to include drained cavities for those claddings. No specific reference was made to substantially or partially completed buildings not yet been issued with a code compliance certificate and a note states that:
- If, after 9 February 2004, a building has been issued a consent under the former Acceptable Solution, the construction will be assessed as an Alternative Solution.
- 3.3.3 The announcement concluded by stating:
- Our advice to [authorities] is that they clearly inform customers with building projects currently underway, and using stucco cladding, of these amendments as quickly as possible.
- (The applicants have stated that they were not informed of these changes.)
- 3.3.4 Further updates and advice followed regarding the upcoming implementation of the third edition of the revised compliance documents for Clause E2 External Moisture¹⁰ (E2/AS1); initially giving an implementation date of 1 February 2005, which was

⁷ The New Zealand Building Code Handbook and Approved Documents, Building Industry Authority 2001

⁸ BIA Update 22 – Interim Amendment to E2/AS1 9 Feb 2004

⁹ Second Edition, amendment 5, 9 February 2004

¹⁰ Approved Document for New Zealand Building Code Clause E2 External Moisture Third Edition

subsequently extended to 1 July 2005. In regard to existing building consents, the update of 2 November 2004¹¹ referred to the policy intent of the Act and stated:

These buildings will therefore be assessed against the conditions of the original building consent and hence the old Acceptable Solution.

3.4 The final inspection

3.4.1 The authority issued the second building consent (No. BC 041273) on 17 September 2004 for 'Reliven BC 980785' (see paragraph 9).

3.4.2 The authority then carried out a final inspection of the house on 21 September 2004, which identified no outstanding items and noted 'bracing taken care of with plywood bracing panels.' In regard to the stucco cladding, the inspection record states:

Exterior is solid plaster over 7.5mm hardibacker. Windows have head flashings but side & sill flashings not known. Builder has used H3 timber in high risk situations. Changes to E2 for stucco explained to owner/builder and this house is possibly a high risk house.

Need to look at risk matrix and will need details of:

- wall roof junctions
- deck construction & handrail details is plaster systems
- window flashing details
- timber treatments & location
- protection for beams etc that project through the cladding system.

3.5 The refusal to issue a code compliance certificate

3.5.1 Under cover of a letter to the applicants dated 22 September 2004, the authority attached a copy of the announcement of the interim amendments to E2/AS1 and explained that 'changes in E2/AS1 which came into effect on 9th February 2004' (see paragraph 3.3.2) required cavities behind all stucco claddings. Due to these changes, the authority could not issue a final code compliance certificate for the house.

3.5.2 The authority noted that direct-fixed stucco systems were now required to be treated as alternative solutions. As the applicants' house had been assessed as having a moderate to high weathertightness risk, the authority could therefore not accept the stucco system as complying with the Building Code.

3.5.3 The applicants responded in a letter to the authority on 1 November 2004, offering to carry out invasive moisture testing with the authority present and making the following points (in summary):

- The five local houses built and plastered by one of the applicants over the past 25 years have no history of leaking.
- There was no notification by the authority of any proposed amendments.
- The stucco complied with the standards at the time it was installed and was finished well before any changes.
- The authority should use its discretion and issue a code compliance certificate.

¹¹ BIA Update 42 – Implementation of Acceptable Solutions B2/AS1 and E2/AS1 2 Nov 2004

- 3.5.4 The authority replied on 10 November 2004, attaching information about submitting an alternative solution¹² and listing the relevant criteria that it considered in assessing the stucco cladding on the house as follows (in summary):
- the research and history of failures leading to the changes of February 2004
 - new methods of assessing potential weathertightness risk factors
 - experiences with similar local houses
 - the applicant's local experience constructing and living in stucco houses
 - the house design and weathertightness risks, which include
 - a height of more than two storeys
 - junctions with other materials
 - solid deck barriers
 - apparent lack of control joints
 - penetrations through the stucco cladding
 - eaves of less than 600mm.
- 3.5.5 Over the next four months the applicants corresponded with the Ministry about what they considered to be illegal retrospective application of 'new regulations' onto a completed house and discussed the possibility of seeking a determination. However, in a letter to the Ministry dated 19 April 2005, the applicants advised they would not seek a determination.
- 3.5.6 Although the authority has referred to a letter to the applicants dated 2 March 2007, this appears to be an error (see paragraph 4.4) and I am not aware of any further correspondence on the matter over the following five years.
- 3.6 The Ministry received an application for a determination from the applicants on 22 January 2013.

4. The submissions

4.1 The applicants' submissions

- 4.1.1 In a letter to the Ministry dated 17 January 2013, the applicants noted that the authority's refusal to issue a code compliance certificate in 2004 was 'due to the ability of solid plaster to act as an effective resistant to penetration of moisture'. The applicants noted that the lime wash finish to the interior plaster would show any dampness in the framing, and that they considered that the lack of visible signs of moisture in the 12 years since construction demonstrated the performance of the stucco on their house. The applicants added that the Good Practice Guide¹³ current at the time of the stucco installation had been followed.

¹² BIA News No 106 Sep 2000 Submitting an Alternative Solution

¹³ BRANZ Good Practice Guide February 1996

4.1.2 The applicants provided copies of:

- unstamped drawings which include additional notes and details
- some correspondence with the authority
- correspondence with the Ministry
- various structural calculations, producer statements and other information.

4.2 The authority's submissions

4.2.1 The authority made a submission dated 13 February 2013 which set out the background to the dispute, noting that it had relied on guidance provided by the Ministry during 2004 in its assessment of the stucco cladding and subsequent refusal to issue a code compliance certificate for the house. The authority also noted that the inspection summary did not include a post-line inspection to verify structural bracing.

4.2.2 The authority provided copies of:

- the original consent drawings
- the inspection summary
- some correspondence with the applicants
- various Ministry updates and guidance information during 2004.

4.2.3 The Ministry sought clarification on the extension then cancellation of the original building consent and the authority provided copies of letters sent to the applicants.

4.3 Both parties made submissions and provided other evidence, copies of which were provided to the other party for comment.

4.4 Subsequent correspondence

4.4.1 On 11 March 2013, the applicants responded to several points made in the authority's submissions; noting that when the pre-line inspection was carried out all plywood bracing was in place and this was approved as the inspection summary noted 'bracing as detailed'. The applicants also noted that the letter refusing to issue a code compliance certificate was dated 22 September 2004 not 2 March 2007.

4.4.2 The authority responded to the applicants' comment on bracing in an email dated 14 March 2013. The authority did not accept the validity of the comment on the inspection in relation to the plywood bracing, believing the plywood has been replaced with the plaster backing sheet.

4.4.3 On 21 March 2013, the applicants sought to clarify the apparent confusion on sheet bracing, noting 'BRACE PLY was used for bracing – NOT gib.' (I take this to mean that the plasterboard bracing elements specified and shown in the drawings were replaced with plywood prior to the pre-line inspection and that plywood was subsequently covered with the backing sheets to the solid plaster interior finish.)

4.5 Submissions on the draft determination

4.5.1 A draft determination was issued to the parties on 5 April 2013. The draft was issued for comment and for the parties to agree the date when the house complied with Building Code Clause B2 Durability.

4.5.2 The authority accepted the draft and agreed with the date proposed in the draft determination of 1 May 2001 as the date when compliance with Clause B2 was achieved.

4.5.3 The applicants responded to the draft by way of letter dated 9 April 2013, agreeing with the proposed date of 1 May 2001 for inclusion in the final determination. The applicants also submitted that:

- no statement had been made about the plywood bracing being replaced by the plaster backing sheets (refer paragraph 4.4.2)
- the intention had always been to have solid plaster internal wall linings and this was not changed; confusion may have arisen as the engineer used a gib calculation sheet to demonstrate bracing, however a note on the side of the sheet approved by the authority states 'or all SP5D' (structural ply).

(I note that the consent documents showed bracing calculations using plywood to the ground floor and plasterboard to the upper level. The reference to 'or all SP5D' was on the bracing calculations for the ground floor only.)

5. The expert's report

5.1 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 7 March 2013, providing a report completed on 21 March 2013. The parties were provided with a copy of the report on 22 March 2013

5.2 General

5.2.1 The expert described the construction quality as 'good', noting the 'attention to detail in design and construction' by the owner/builder, with the stucco plaster 'well finished to a high standard'. The house had also been well maintained, with all minor plaster cracks sealed and painted.

5.2.2 The expert noted that the construction generally accorded with the consent drawings, except that two additional skylights were installed.

5.2.3 Windows and doors have metal head flashings and are face-fixed over the stucco, with plaster extended behind joinery flanges and soakers visible behind the jamb to sill flange mitre joints of the windows. The expert noted that invasive moisture readings indicated that the joinery was performing satisfactorily, with sound drillings and no evidence of moisture entry.

5.3 The upper level deck

5.3.1 The expert observed that the butyl rubber deck membrane appeared to be turned up over the door threshold and sloped towards the clad nib under the west glazed balustrade. A continuous drainage gap is provided under the nib, which is supported

on a timber spacer block at mid-span, with the membrane extended under the nib and wrapped over the deck substrate.

- 5.3.2 There was no evidence of raised moisture levels within the clad balustrades, nibs or junctions with walls. Carpet was lifted behind the deck wall at the northwest corner of the master bedroom and the expert observed no evidence of moisture on carpet fixings and linings. The expert also observed no signs of moisture entry into walls below the deck and concluded that the deck construction appeared satisfactory.

5.4 Moisture testing

- 5.4.1 The expert inspected the interior of the house, lifting carpet corners in various locations, and no signs of moisture were noted on the underside of carpet, carpet fixings or plaster walls. The timber ceiling sarking and skylights showed no signs of water entry. Old water staining from a past plumbing leak was observed in the internal wall between the northeast store room and the ensuite bathroom.
- 5.4.2 Carpet was lifted adjacent to the rock cladding at the northwest corner of the lounge and the expert observed no evidence of moisture on carpet fixings and linings. At the stone steps against the cladding against the west lounge wall, the expert noted no moisture in the corner of the basement below the steps.
- 5.4.3 The expert carried out invasive moisture testing at areas considered at risk of moisture penetration: including the deck balustrades, beam penetrations through the stucco, around windows and doors and at bottom plates. Moisture readings ranged from 8% to 17%. However, I note that readings were taken at the end of a dry summer and would be expected to increase during wetter seasons.
- 5.4.4 The expert noted some discoloured drillings from the north balustrade nib, at the junction with the clad balustrade where a reading of 16% was recorded. However, a larger core drilling showed consistently clean timber fragments.

5.5 Timber analysis

- 5.5.1 The expert collected timber drillings and a small piece of framing and forwarded them for analysis to determine the type of preservative treatment and the condition of the wood in the samples taken from
- the bottom plate of deck balustrade framing below the junction with the clad nib, where a reading of 16% was recorded (sample 1)
 - the bottom plate at the base of one of the framed chimneys, where the reading of 17% was recorded (sample 2).
- 5.5.2 The laboratory report dated 20 March 2013 stated that Sample 1 was CCA treated to an equivalent of H3.2 and sample 2 was treated with boron likely to an equivalent of H1.2. Both samples 'contained fungal remnants, but no well-established fungal growths' and no decay was detected.

5.6 Conclusion on weathertightness

- 5.6.1 The expert concluded that 'the stucco plaster cladding appears to be performing satisfactorily despite the high risk nature of the construction', adding:

It appears that the attention to detail in design and construction has played a significant part in this high risk property remaining essentially weathertight.

5.7 The structural bracing

- 5.7.1 The expert said it appeared the consent bracing calculations identify a combination of plywood and plasterboard to provide the sheet bracing to the house. Most interior linings are solid plaster applied over the backing sheets.
- 5.7.2 The expert added the following comments on bracing that was visible:
- The store room in the northeast corner (upper level) is fully lined with 7.5mm structural plywood nailed at 75mm centres at edges and 150mm centres at mid panels.
 - The south wall of the upper level southern roof space includes structural plywood nailed at 75mm centres at edges and on studs.
 - The fibre-cement backing sheets to the exterior stucco are also capable of providing bracing if installed to the manufacturer's instructions: these were almost completed at the time of the pre-line inspection.
- 5.7.3 The expert also noted little sign of unexpected movement in the house, with a single door sticking and minor stucco cracking not considered excessive. The lack of movement in the wall linings and stucco cladding indicated that the house was adequately braced.

Matter 1: The external envelope

6. Weathertightness

- 6.1 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).

6.2 Weathertightness risk

- 6.2.1 This addition has the following environmental and design features, which influence the weathertightness risk profile of the addition:

Increasing risk

- the house is in a high wind zone
- some parts of the house are three-storeys-high
- the house is fairly complex in plan and form
- there are complex junctions and penetrations through the cladding
- there is an upper deck, with clad balustrades, situated over a lower room
- the stucco cladding is fixed directly to the framing
- most walls have no roof overhangs to shelter the cladding
- the external wall framing may not be treated to a level that provides resistance to decay if it absorbs and retains moisture

Decreasing risk

- the basement walls and suspended ground floor are concrete
- there are canopies to shelter some of the windows and doors.

6.2.2 Using the E2/AS1 risk matrix to evaluate these features, the elevations are assessed as having a high risk rating. If details shown in the current E2/AS1 were adopted to show code compliance, a drained cavity would be required for the stucco cladding; this was not a requirement for solid plaster over rigid backings at the time of installation.

6.3 Weathertightness performance

6.3.1 Taking account of the expert's report, the stucco cladding appears to have been installed in accordance with good trade practice at the time, with no evidence of moisture penetration into the walls.

6.3.2 I note that the applicants have stated that the stucco was installed in accordance with the BRANZ Good Practice Guide current at that time this would have called for the inclusion of control joints in plastered walls beyond 4m high or wide. With regard to the lack of evidence that these have been installed, I note the following:

- the stucco appears to have been installed according to good trade practice onto framing above a rigid concrete basement structure
- all drying shrinkage in the plaster and supporting framing would have occurred during the early part of the period since construction
- some minor cracking is to be expected in response to environmental factors such as imposed temperature and moisture effects, wind, earthquake forces and seasonal movements
- the stucco shows no signs of significant cracking or associated moisture entry after more than twelve years, which may be due either to the inclusion of control joints below the top coat of plaster or an indication that the stucco is adequate despite their omission.

6.3.3 Notwithstanding that the fibre-cement backing sheets are fixed directly to timber framing, thus inhibiting drainage and ventilation behind the stucco, I note certain factors that assist the performance of the cladding in this case:

- The stucco cladding is generally installed according to good trade practice and has been well maintained.
- After 12 years, there is no evidence of moisture penetration.

6.4 Weathertightness conclusion

6.4.1 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 framing at present. Consequently, I am satisfied that the house complies with Clause E2 of the Building Code.

6.5 The durability of the stucco cladding

- 6.5.1 The building work is also required to comply with the durability requirements of Clause B2. Clause B2 requires that a building continue to satisfy all the objectives of the Building Code throughout its effective life, and that includes the requirement for the stucco cladding to remain weathertight for a period of 15 years from the date a code compliance certificate is issued.
- 6.5.2 However, if that 15 year period commenced from the date of substantial completion in early 2001, the cladding would need to remain weathertight for a further three years only. Although the expert has identified a considerable number of weathertightness risk features in the stucco cladding, the quality of construction and the current condition of this house satisfies me that the stucco will remain weathertight for at least the next three years.
- 6.5.3 I therefore conclude that a modification of the building consent to the effect that Clause B2.3.1 applies from the substantial completion date in early 2001 instead of from the time the code compliance certificate is issued will result in the house being brought into compliance with Clause B2 of the Building Code insofar as it relates to Clause E2. I address such a modification in paragraph 8.
- 6.5.4 It is emphasised that each determination is conducted on a case-by-case basis. Accordingly, the fact that a particular cladding system has been established as being code-compliant in relation to a particular building does not necessarily mean that the same cladding system will be compliant in another situation.

6.6 Maintenance of the stucco cladding

- 6.6.1 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).
- 6.6.2 In the case of this particular house, I note the following:
- The house design includes a number of high risk features, which require careful consideration to the maintenance requirements of the stucco cladding in order to ensure its ongoing weathertightness.
 - The expert has reported that the stucco cladding is well-maintained, which I consider to be a key factor in the adequate weathertightness of the cladding over the past twelve years.
 - Although a modification of the durability provisions to allow the provisions to commence from the date of substantial completion in 2001 means that the stucco cladding needs to remain weathertight for a minimum of three years more, the expected life of the building as a whole is considerably longer than the minimum life required by the Building Code for the stucco cladding; and careful maintenance should continue.

Matter 2: The structural bracing

7. Discussion

- 7.1 The consent documents show plywood bracing to the ground floor and plasterboard bracing to the upper level. The owner has submitted that plywood bracing was used throughout the house. Evidence to support this position can be taken from the plywood bracing observed by the expert to the upper level, and the lack of any evidence of excessive movement observed by the expert throughout the house.
- 7.2 The Building Code is a performance based document: I note that the house is in excess of 12 years old and the structure has performed satisfactorily over this period.
- 7.3 I also note that the summary record of the authority's pre-line inspection on 6 November 2000 noted 'bracing as detailed', which supports the applicant's assertion that plywood sheets were in place and approved at the time. I consider it likely that the backing sheets were installed over the plywood bracing before the interior plaster finish was applied.
- 7.4 Taking the above into account I consider there are reasonable grounds to form the view that the bracing is adequate, and that the house complies with Clause B1 Structure.

Matter 3: The durability considerations

8. Discussion

- 8.1 There are concerns about the durability, and hence the compliance with the Building Code, of certain elements of the building taking into consideration the completion of the house in early 2001.
- 8.2 The relevant provision of Clause B2 of the Building Code requires that building elements must, with only normal maintenance, continue to satisfy the performance requirements of the Building Code for certain periods ("durability periods") "from the time of issue of the applicable code compliance certificate" (Clause B2.3.1).
- 8.3 These durability periods are:
- 5 years if the building elements are easy to access and replace, and failure of those elements would be easily detected during the normal use of the building
 - 15 years if building elements are moderately difficult to access or replace, or failure of those elements would go undetected during normal use of the building, but would be easily detected during normal maintenance
 - the life of the building, being not less than 50 years, if the building elements provide structural stability to the building, or are difficult to access or replace, or failure of those elements would go undetected during both normal use and maintenance.
- 8.4 In this case the prolonged construction and the delay since the completion of the building raises concerns that many elements of the building are now well through or

beyond their required durability periods, and would consequently no longer comply with Clause B2 if code compliance certificates were to be issued effective from today's date. However, I have not been provided with any evidence that elements did not comply with Clause B2 in early 2001.

- 8.5 It is not disputed, and I am therefore satisfied, that all the building elements complied with Clause B2 on 1 May 2001. This date has been agreed between the parties (refer paragraph 4.5).
- 8.6 In order to address these durability issues when they were raised in previous determinations, I sought and received clarification of general legal advice about waivers and modifications. That clarification, and the legal framework and procedures based on the clarification, is described in previous determinations (for example, Determination 2006/85). I have used that advice to evaluate the durability issues raised in this determination.
- 8.7 I continue to hold that view, and therefore conclude that:
- (a) the authority has the power to grant an appropriate modification of Clause B2 in respect of all the building elements, if requested by an owner
 - (b) it is reasonable to grant such a modification, with appropriate notification, as in practical terms the building is no different from what it would have been if a code compliance certificate for the building work had been issued in 2001.
- 8.8 I strongly recommend that the authority record this determination and any modifications resulting from it, on the property file and also on any LIM issued concerning this property.

9. The 'lapsing' of the first consent

- 9.1.1 Although the building work was substantially completed and occupied during 2001, no final inspection was requested and on 17 May 2001 the authority noted on its inspection summary that the original building consent (No. BC 980785 had 'lapsed'. (I note that this action was undertaken whilst the "the former Act" was in force). More than three years later, the authority issued a second building consent (No. BC 041273) on 17 September 2004 for 'Reliven BC 980785'.
- 9.1.2 Under section 41(1)(b) of the former Act, the 'reasonable progress' provision concerns the failure to make reasonable progress on building work within 12 months after work commences, or within such further period as the territorial authority in its absolute discretion may allow. However these reasonable progress provisions are not relevant to any delay between the issuing of a building consent and the date when a final inspection is requested.
- 9.1.3 This question of reasonable progress was considered by me in Determination 2010/057, and I consider that my opinions set out in that decision are applicable to the current situation. Accordingly, in my view, the provisions of section 41(1)(b) of the former Act are to be applied when reasonable progress is not being made, not at some point after this when the building work has been completed. Therefore, if an authority wishes to take action under the reasonable progress provisions, it would need to do so 12 months after the issuing of a building consent.

- 9.1.4 I consider that the period of delay between the issue of a building consent and the request for a final inspection is not a ground under section 43(5) of the former Act for refusing to issue a code compliance certificate.

10. The decision

- 10.1 In accordance with section 188 of the Building Act 2004, I hereby determine that there is sufficient evidence to establish that the house meets the requirements of the Building Code that were in force at the time the building consent was issued, and accordingly, I reverse the authority's decision to refuse to issue a code compliance certificate.

- 10.2 I also determine that all the building elements installed in the house complied with Clause B2 on 1 May 2001; the building consent is hereby modified as follows:

The building consent is subject to a modification to the Building Code to the effect that, Clause B2.3.1 applies from 1 May 2001 instead of from the time of issue of the code compliance certificate for all the building elements.

Signed for and on behalf of the Chief Executive of the Ministry of Business, Innovation and Employment on 17 May 2013.

John Gardiner
Manager Determinations and Assurance