

Determination 2007/19

Refusal of a code compliance certificate for additions and alterations to an apartment at 5/29 Haining Street, Wellington



1 The matter to be determined

- 1.1 This is a determination under Part 3 Subpart 1 of the Building Act 2004¹ (“the Act”) made under due authorisation by me, John Gardiner, Determinations Manager, Department of Building and Housing (“the Department”), for and on behalf of the Chief Executive of that Department. The applicant is the owner Ms Bennett (“the applicant”), and the other party is the Wellington City Council (“the territorial authority”).
- 1.2 The application arises from the territorial authority’s refusal to issue a code compliance certificate for 4-year-old alterations to Unit 5 (“the apartment”), as it did not:
- carry out any inspections of the work undertaken under the building consent

¹ The Building Act 2004 is available from the Department’s website at www.dbh.govt.nz.

- receive notifications from Nationwide Building Certifiers Ltd (“the building certifier”) as required under the Building Act 1991 (“the 1991 Act”).

- 1.3 The matter for determination is whether the territorial authority’s decision to decline to issue a code compliance certificate for the apartment is correct. The refusal arose because the building work had been erected under the supervision of Nationwide Building Certifiers Ltd (“the building certifier”), which went out of business before it had issued a code compliance certificate for the apartment, and when it was asked for make a final inspection, the territorial authority did not believe that the building was code compliant.
- 1.4 In order to determine that matter, I must first decide whether the building work complies with the Building Code.
- 1.5 In making my decision, I have considered the submissions of the parties, the report of the independent expert commissioned by the Department to advise on this dispute (“the expert”), and the other evidence in this matter, including the building certifier’s inspections records. I have evaluated this information in relation to the cladding using a framework that I describe more fully in paragraph 6.1.
- 1.6 In this determination, unless otherwise stated, references to sections are to sections of the Act and references to clauses are to clauses of the Building Code.

2 The building

- 2.1 The building work consists of additions and alterations to an apartment, which is in a mixed-use building situated on a gently sloping urban site that is in a medium wind zone for the purposes of NZS 3604². The 3-storey building was constructed in the 1980’s; and accommodates carparking in the basement level, offices and warehousing in the ground floor, and residential units in the first floor. The rectangular building is specifically engineered, with concrete floors and columns, timber-framed infill walls to the street frontage, and concrete block party walls, stairwell walls and boundary walls. The building has 4° profiled metal skillion roofs and a raised front roof section pitched at 45° to the street elevation, with a series of projecting gables.
- 2.2 The building work considered in this determination is to a middle apartment in a block of apartments and consists of extensive interior remodelling, some new front wall cladding, aluminium windows and the addition of a mezzanine level above bedroom areas. A further half flight of stairs provides access to a new roof deck, which is sunk with the existing roofline. The roof is raised over the new staircase, with the projection clad in profiled metal.
- 2.3 Given the age of the original building, I consider that the original infill framing is likely to be boric treated. The expert noted no evidence as to timber treatment of the alterations, and the specification calls for the all wall framing to be “No 1 framing grade”. Accordingly, given the date of construction in 2002, I consider that the

^{2 2} New Zealand Standard NZS 3604:1999 Timber Framed Buildings

external wall framing of the building work is unlikely to be treated to a level that will provide resistance to fungal decay.

- 2.4 The cladding to the new exterior walls enclosing the deck consists of painted butt-jointed fibre cement sheets, and the cladding to the walls surrounding the new roof deck is vertical corrugated metal. The claddings are fixed through the building wrap directly to the framing timbers.
- 2.5 I have received no evidence of producer statements or warranties for the claddings.

3 Sequence of events

- 3.1 The building certifier was approved as a building certifier under section 53 of the Building Act 1991 on 5 January 1999.
- 3.2 The territorial authority issued a building consent (SR 91466) on 2 August 2002, based on a building certificate (5472) issued by the building certifier and dated 2 August 2002. The building certificate did not contain any exclusions from the building certifier's scope of engagement, nor was the work inconsistent with the scope if its approval as a building certifier at that time.
- 3.3 The building certifier carried out various inspections during construction and issued two "Building Certifier's Monthly Inspection Reports" dated 30 September 2002 and 31 October 2002, with copies of these forwarded to the territorial authority. Inspections included preline on 5 September 2002. I have seen no records of any inspections following that of the waterproofing of wet areas on 14 October 2002.
- 3.4 The building certifier's scope of approval was amended on 1 January 2003 to, in general terms, exclude claddings outside E2/AS1, unit-titled dwellings and more than two dwelling under a single roof. The limitations would have prevented the building certifier certifying this work after 1 January 2003.
- 3.5 It appears that the building certifier's Wellington office was closed in May 2004. The building certifier's approval as a certifier expired on 30 December 2004.
- 3.6 In an email dated 16 October 2006, the applicant requested the territorial authority to complete inspections and issue a code compliance certificate as the apartment was to be marketed for sale.
- 3.7 The territorial authority responded in an email dated 17 October 2006, noting that, as it had not received a building certificate pursuant to section 56, from the building certifier, the territorial authority had insufficient grounds on which to be satisfied that the building work complied with the Building Code. Accordingly, the territorial authority was unable to issue a code compliance certificate. The territorial authority set out 4 options that the owner could pursue. These were:
1. find the final building certificate if the building certifier issued one
 2. apply to the Department for a determination

3. apply to the territorial authority for a certificate of acceptance
 4. take no further action.
- 3.8 Following further correspondence with the territorial authority, the applicant applied for a certificate of acceptance on 9 November 2006.
- 3.9 The territorial authority visited the site on 22 November 2006 to carry out an initial inspection of the building work and advised the applicant that:
- The plans submitted for certificate of acceptance are copies of the building consent plans. As part of the work has not been carried out the plans are not a true record of the work as built.
 - Current warranties are required for the external cladding and the roof deck membrane.
 - There are items of non-compliance.
 - Other items may be identified when a full inspection is carried out.
- 3.10 The Department received the application for a determination on 4 December 2006.

4 The submissions

- 4.1 Within the application, the matter for determination was noted as “Refusal of WCC to issue Code of Compliance”.
- 4.2 The applicant forwarded copies of:
- the consent drawings and specification
 - the building consent documentation
 - a record of the pre-line inspection dated 19 January 2000
 - the correspondence and records of telephone calls with the territorial authority
 - various producer statements and other statements
- 4.3 The territorial authority wrote to the Department on 20 December 2006, setting out the background to the dispute and listing the inspection documentation that it had received from the building certifier. The territorial authority stated that it had not carried out any inspections of the building work, nor had the building certifier notified the territorial authority that it was unable to inspect or certify the building work as required by section 57 (3) of the 1991 Act. As the building certifier had not supplied a building certificate under section 56 of the 1991 Act for the work or a code compliance certificate, it had insufficient grounds to be satisfied that the work was code compliant. The territorial authority also noted that the building certifier had had ample opportunity to inform the territorial authority as to the status of the building consent. In addition, the territorial authority considered that the issuing of a

certificate of acceptance under section 437 of the Act was the appropriate method to deal with the matter.

4.4 The territorial authority forwarded copies of:

- the consent drawings and specification
- the building consent documentation
- the inspection documentation forwarded by the building certifier
- correspondence with the applicant
- various producer statements, warranties, certificates and structural calculations.

4.5 Copies of the submissions and other evidence were provided to each of the parties. Neither party made any further submissions in response to the submission of the other party.

4.6 A copy of the first draft determination was issued to the parties for comment on 16 January 2007.

4.7 The applicant responded in an email to the Department dated 2 February 2007. The applicant noted the following:

- The front deck was already enclosed and was not part of the building work. The new front window had been installed in the same manner as the existing windows.
- Bedroom 1 has a skylight that allows air to enter the room.
- The door to the roof deck has a head flashing.
- The overflow to the roof deck would be installed once an acceptable location was agreed.
- A firm of consultants had been engaged to prepare a fire report (the fire report was received by the Department on 8 February 2006)

The applicant accepted that the remaining matters would be fixed (i.e. ceiling insulation, stair handrail, hot water temperature, smoke detectors, main entry fire door, flashings to the external cladding and external penetrations).

4.8 The applicant provided as-built drawings to the Department, received on 8 February 2007. However, I note that some details on the plans are not fully accurate with respect to existing and proposed fire protection, and the like, and the plans will need to be updated to take account of the agreed remedial work.

4.9 The territorial authority responded to the draft in an email to the Department dated 8 February 2007. The territorial authority noted inconsistencies and typographical

errors in the draft, and agreed with the applicant's comment regarding the closing-in of the balcony. The territorial authority questioned the reference to previous determinations with respect to how code compliance may be established when a building certifier had been engaged but was not able to properly sign-off the completed work.

- 4.10 I have taken the above comments into account and modified the determination accordingly. I have confined discussion within the determination to the code compliance of the building work.
- 4.11 The fire report was commissioned by the applicant in response to the draft determination. The report was written by an established and reputable firm of professional consultants. I have reviewed the report and I am of the opinion I am entitled to rely on its findings. I have therefore modified the determination to take the report's findings into account.
- 4.12 A copy of the second draft determination was issued to the parties for comment on 13 February 2007. The applicant accepted the second draft. The territorial authority accepted the draft with non-contentious amendments. I have amended the determination accordingly.

5 The establishment of code compliance

- 5.1 I find that the available documentation, which includes the building certifier's inspection reports, together with the expert's report, the structural engineer's producer statement, and the fire report, allows me to form a view as to the code compliance of the building work as a whole.
- 5.2 In the absence of any evidence to the contrary, I take the view that the Department is entitled to rely on the inspections reported by the building certifier with regard to inaccessible building components.
- 5.3 A condition for this reliance is that a visual inspection of the accessible components demonstrates code compliance of those components, so providing grounds to form a view that the building work as a whole complies with the building code. Accordingly I have relied on the expert's report as a means of verification that inspection work as reported was carried out.
- 5.4 Before deciding whether or not to rely on the reports and other evidence, I consider it important to look for evidence that corroborates them. In this particular case the corroboration comes from the expert's report, that a visual inspection of the accessible components demonstrates code compliance of those components. Taken together, this information provides grounds on which to form a view that the building work will comply with the building code once the defects noted herein have been fixed to the satisfaction of the territorial authority.
- 5.5 As noted in paragraph 1.5, I engaged an independent expert to inspect the dwelling, and report on the compliance of the building work with the relevant requirements of

the building code. The expert is a member of the New Zealand Institute of Building Surveyors.

- 5.6 The expert inspected the alterations on 10 January 2007, and furnished a report that was completed on 12 January 2007. The expert noted that, with the exception of items noted in paragraphs 5.9 to 5.11, “the workmanship is of a good standard”.
- 5.7 The expert noted that the work to the external building envelope was limited to the enclosing of the front deck, the replacement of windows and cladding to part of the front elevation, and the addition of the roof deck and staircase roof (I acknowledge that the front deck was already enclosed before the alterations, see paragraph 4.7). The expert observed that the new front windows were face-fixed with well-protected window heads and no sill or jamb flashings.
- 5.8 The expert noted a number of variations from the consent drawings, including:
- new cladding and windows to part of the front elevation
 - various changes to the interior layout, including internal windows and skylights
 - various changes to fire-rated elements.
- 5.9 The expert noted a leak from the ceiling space above the mezzanine, but found no other signs of moisture penetration. Due to the difficulty of access within the building envelope, the expert did not take any invasive moisture readings through the claddings.
- 5.10 The expert made the following specific comments on the building work:

Weathertightness

- the new front windows lack sill or jamb flashings, and are dependent on sealant for weathertightness
- there is no provision for overflow drainage from the roof deck
- the metal cladding to the walls around the roof deck is inadequately fixed, and there is no head flashing to the deck door (the cladding above the door appears to be just lapped over the head of the door frame)
- flashings to the roof and deck wall areas are poorly formed, fitted and fixed, with incorrect falls and ponding, new flashings overlapping where underlaps are required, and inadequately weatherproofed junctions and penetrations

Fire protection

- the relocated main entry door has not been confirmed as fire-compliant, as there is no new sign installed (the original tag has been refitted) and new door hardware has been installed which is not adequately fire-rated
- the ceiling insulation covers downlights
- the number of smoke alarms provided is inadequate

Other compliance matters

- insulation is poorly installed, with varying thicknesses and lack of support
- the glass balustrade lacks a handrail
- the temperature of the delivered hot water is too high
- Bedroom 1 lacks any awareness of the outside.

5.11 The expert noted that the observed defects indicated a lack of compliance with the following relevant clauses of the building code:

B2	Durability
C1 to C4	Fire Safety
D1	Access routes
E1	Surface water
E2	External moisture
E3	Internal moisture
F7	Warning systems
G7	Natural light
G12	Water supplies
H1	Energy efficiency

5.12 The expert also noted that appropriate documentation was required to establish compliance with the following relevant clauses of the building code:

C1 to C4	Fire Safety
F7	Warning systems
G4	Ventilation
G13	Foul water

5.13 The expert also reported that, based on observation and the available documentation and compliance certificates, the building work appeared to comply with the other relevant clauses of the building code.

5.14 A copy of the expert's report was provided to each of the parties on 23 January 2007.

6 Evaluation for code compliance: The claddings

6.1 Evaluation framework

6.1.1 In evaluating the design of a building and its construction, it is useful to make some comparisons with the relevant Acceptable Solutions³, which will assist in determining whether the features of these alterations are code compliant. However, in making this comparison, the following general observations are valid:

³ An Acceptable Solution is a prescriptive design solution approved by the Department that provides one way of complying with the Building Code. The Acceptable Solutions are available from The Department's Website at www.dbh.govt.nz.

- Some Acceptable Solutions cover the worst case, so that they may be modified in less extreme cases and the resulting alternative solution will still comply with the Building Code.
- Usually, when there is non-compliance with one provision of an Acceptable Solution, it will be necessary to add some other provision to compensate for that in order to comply with the Building Code.

6.1.2 The approach in determining whether building work is weathertight and durable and is likely to remain so, is to apply the principles of weathertightness. This involves the examination of the design of the building, the surrounding environment, the design features that are intended to prevent the penetration of water, the cladding system, its installation, and the moisture tolerance of the external framing. The Department and its antecedent, the Building Industry Authority, have also described weathertightness risk factors in previous determinations⁴ (for example, Determination 2004/1) relating to cladding and these factors are also used in the evaluation process.

6.1.3 The consequences of a building demonstrating a high weathertightness risk is that building solutions that comply with the Building Code will need to be more robust. Conversely, where there is a low weathertightness risk, the solutions may be less robust. In any event, there is a need for both the design of the cladding system and its installation to be carefully carried out.

6.2 Weathertightness risk

6.2.1 In relation to these characteristics I find that the altered front wall of this apartment:

- is built in a medium wind zone
- is at the top floor level of this 3-storey building
- is fairly simple in form
- has fibre-cement sheet cladding that is fixed directly to the framing
- has no eaves projections
- has external wall framing that is unlikely to be treated to a level that is effective in helping resist decay if it absorbs and retains moisture.

6.2.2 When evaluated using the E2/AS1 risk matrix, these weathertightness features show that the exterior front wall of the alterations demonstrates a moderate risk. The matrix is an assessment tool that is intended to be used at the time of application for consent, before the building work has begun and, consequently, before any assessment of the quality of the building work can be made. Poorly executed building work introduces a risk that cannot be taken into account in the consent stage but must be taken into account when the building as actually built is assessed for the purposes of issuing a code compliance certificate.

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

6.2.3 I also note that, although the roof deck walls demonstrate a high weathertightness risk, the vertical profiled metal cladding would not require a cavity in order to comply with the requirements of E2/AS1.

6.3 Weathertightness performance: exterior cladding

6.3.1 Generally the claddings appear to have been installed in accordance with good trade practice, but some junctions are not well constructed; and these areas are described in paragraph 5.10 and in the expert's report. I accept the expert's opinion that work is necessary to fix the following:

- The inadequate seals to the window jambs.
- The lack of provision for overflow drainage to the roof deck.
- The lack of head flashing to the deck door.
- The inadequate fixing of the metal cladding to the deck walls.
- The inadequate flashings to the roof and deck walls.

6.3.2 Notwithstanding the fact that the fibre-cement cladding is fixed directly to the timber framing, thus limiting drainage and ventilation behind the cladding, I have noted certain compensating factors that assist the performance of the cladding in this particular case. These are that:

- apart from the noted exceptions, the cladding is installed to good trade practice
- the fibre-cement cladding is limited to a small area of exterior wall
- the structure of the building is reinforced concrete.

6.3.3 I consider that these factors help compensate for the lack of a drained cavity to the walls, and can assist the building work to comply with the weathertightness and durability provisions of the Building Code.

7 The compliance of the claddings

7.1 I consider the expert's report establishes that the current performance of the claddings is not adequate because it is allowing water penetration into the apartment at present. Consequently, I am satisfied that the alterations do not comply with clause E2 of the Building Code.

7.2 In addition, the building work is also required to comply with the durability requirements of clause B2. Clause B2 requires that a building continues to satisfy all the objectives of the building code throughout its effective life, and that includes the requirement for a building to remain weathertight. Because the cladding faults on the building work are likely to continue to allow the ingress of moisture in the future, the alterations do not comply with the durability requirements of clause B2.

- 7.3 Because the faults identified with the cladding system occur in discrete areas, I am able to conclude that satisfactory rectification of the items outlined in paragraph 6.3.1 will result in the building work becoming and remaining weathertight and in compliance with clause B2.
- 7.4 Effective maintenance of claddings (in particular of monolithic claddings) is important to ensure ongoing compliance with clauses B2 and E2 of the Building Code and is the responsibility of the building owner. Clause B2.3.1 of the Building Code requires that the cladding be subject to “normal maintenance”, however that term is not defined in the Act.
- 7.5 I take the view that normal maintenance is that work generally recognised as necessary to achieve the expected durability for a given building element. With respect to the cladding, the extent and nature of the maintenance will depend on the material, or system, its geographical location and level of exposure. Following regular inspection, normal maintenance tasks should include but not be limited to:
- where applicable, following manufacturers’ maintenance recommendations
 - washing down surfaces, particularly those subject to wind-driven salt spray
 - re-coating protective finishes
 - replacing sealant, seals and gaskets in joints.

The remaining compliance matters

8 Discussion

- 8.1 I accept the expert’s opinion that work is necessary to fix the following:
- The inadequate fire-rating adjacent to the upper deck.
 - The inadequate fire-rating of the new entry door.
 - The insulation covering the downlights.
 - The inadequate provision of smoke alarms.
 - The inadequately installed insulation.
 - The lack of a handrail to the glass balustrades.
 - The temperature of the delivered hot water.
 - The lack of natural light and visual awareness of the outside to Bedroom 1.

- 8.2 I also note the expert's comments in paragraphs 5.8 and 5.12 regarding the provision of as-built drawings and other required documentation, and consider that these matters also require satisfactory resolution.
- 8.3 I believe that I have sufficient grounds to form a view that once the defects and outstanding items identified in paragraphs 8.1 and 8.2 have been fixed to the satisfaction of the territorial authority, the work will comply with the building code.
- 8.4 In response to the applicant's submission on the draft determination with respect to the lack of visual awareness to Bedroom 1, I note the following:
- (a) Bedroom 1 is a "habitable space" as defined in Clause A2 of the building Code and is therefore required to comply with Clause G7 "Natural light". Clause G7.2 says "[h]abitable spaces shall provide adequate openings for natural light and for a visual awareness of the outside environment."
 - (b) Determination 2001/1 found that a skylight provided insufficient means of complying with the clause G7. The determination noted that "the relevant objective of the building code is to safeguard people from illness or loss of amenity due to isolation from the outside environment. The acceptable solution G7/AS1 achieves that objective by providing a certain area of glazing in walls to allow occupants can see what is happening outside. The room concerned, with no glazing whatsoever in its external wall, does not comply with the acceptable solution."
 - (c) Determination 2001/1 decided that the room in question "[did] not comply with clause G7 of the building code if it is used as a bedroom or other habitable space, but that it would comply "if it is used as a storeroom or other non-habitable space".
 - (d) I believe that the circumstances of this case are sufficiently similar so as to lead me to reach the same conclusion.

9 The decision

- 9.1 In accordance with section 188 of the Building Act 2004, I hereby determine that the building work does not comply with clauses B2, C, D1, E1, E2, E3 F7, G7, G12 and H1 of the Building Code. I accordingly confirm the territorial authority's decision to refuse to issue a code compliance certificate.
- 9.2 I note that the territorial authority has not issued a notice to fix. A notice to fix should be issued that requires the applicant to bring the building work into compliance with the Building Code, identifying the defects and outstanding documentation listed in paragraph 6.3.1, paragraph 8.1 and paragraph 8.2, but not specifying how those defects are to be fixed. That is a matter for the applicant to propose and for the territorial authority to accept or reject. It is important to note that the Building Code allows for more than one method of achieving compliance.

- 9.3 I would suggest that the parties adopt the following process to meet the requirements of paragraph 9.2. Initially, the territorial authority should issue a new notice to fix, listing all the items that the territorial authority considers to be non-compliant. The owner should then produce a response to this in the form of a detailed proposal, produced in conjunction with a competent and suitably qualified person, as to the rectification or otherwise of the specified issues. Any outstanding items of disagreement can then be referred to the Chief Executive for a further binding determination.

Signed for and on behalf of the Chief Executive of the Department of Building and Housing on 21 February 2007.

John Gardiner
Determinations Manager