MINISTRY OF BUSINESS, INNOVATION & EMPLOYMENT
HIKINA WHAKATUTUKI

Determination 2020/021

Regarding the refusal to issue a code compliance certificate for the replacement of waterproofing membranes and tiles to concrete decks in a retirement village at 550 Albany Highway, Albany, Auckland

Summary

This determination considers whether the changes to a decking system to an existing building in a retirement village constitute a minor variation to the building consent issued for remedial work to the building. The determination considers whether the as-built decking system is compliant and examines the variation against the guidance issued by the Ministry on minor variations.

1. The matter to be determined

1.1 This is a determination under Part 3 Subpart 1 of the Building Act 2004 ("the Act") made under due authorisation by me, Katie Gordon, Manager Determinations, Ministry of Business, Innovation and Employment ("the Ministry"), for and on behalf of the Chief Executive of the Ministry.[1]

1.2 The parties to the determination are:

- Settlers Albany Limited ("the applicant") who is the owner of the entire retirement village complex. The applicant is acting via an architectural firm, who is the project manager ("the agent") for the subject building work
- Auckland Council ("the authority"), carrying out its duties as a territorial authority or building consent authority.

1.3 An occupant of a unit of an adjacent building (Block D) in the retirement village complex ("the neighbour") has an Occupation Right Agreement with the applicant, and is of the view he has an interest in the outcome of this determination because he occupies a unit with the same original deck construction as the building that is the subject of this determination (Block A).

1.4 For that reason, I have concluded that although the neighbour is not a party to the determination under section 176[2] of the Act and does not have a direct property or financial interest in this determination (which is limited to Block A), the neighbour has an interest in the outcome of the determination only because of the similarities of

[1] The Building Act and Building Code are available at www.legislation.govt.nz. The Building Code is contained in Schedule 1 of the Building Regulations 1992. Information about the Building Act and Building Code is available at www.building.govt.nz, as well as past determinations, compliance documents and guidance issued by the Ministry.

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

the deck construction. I provided the neighbour with a copy of a draft of this determination. I note here section 186(5) of the Act requires me to consider any submission made in respect of the subject determination that is received before the final determination is made.

1.5 This determination arises from the authority's purported decision to refuse to issue a code compliance certificate in respect of the installation of:

- tiles on a pedestal system over waterproof membranes to six concrete decks ("the as-built decking system")
- balustrade fixings to the decks ("the as-built balustrade fixings).

1.6 The as-built decking system and the as-built balustrade fixings were not installed in accordance with building consent No. BCO100288855 ("the building consent") and there is a dispute between the parties as to whether a minor variation to the building consent was submitted and approved. The authority has issued a notice to fix for this work which, although outside the matters to be determined, outlines the authority's reasons for their purported refusal to issue a code compliance certificate.

1.7 The matter to be determined[3] is therefore whether the authority was correct in its purported decision to refuse to issue a code compliance certificate for the building consent. In deciding this matter, I must consider whether the as-built decking system and the as-built balustrade fixings of Block A comply with Clauses B1 Structure, B2 Durability and E2 External moisture of the Building Code[4] (First Schedule, Building Regulations 1992).

1.8 I note that the building consent covers building work to Blocks A and C. The agent has advised that the intention is to apply to amend the building consent to remove the building work that relates to Block C and deal with that separately. Therefore, the consideration of Block C is outside the scope of this determination, and I leave this, including recording the reduction of scope of works to the building consent to the parties to resolve in due course.

1.9 Previous Determination 2012/007[5] considered the compliance of a tiled membrane system proposed for the decks to Block G in the retirement village complex, and the authority's refusal to amend building consents for Blocks H and I in the complex to allow tiling to be adhered to the deck membranes to those blocks. That determination found that the proposed tiled membrane system complied with Clauses E2 and B2 of the Building Code and reversed the authority's decision to refuse to amend the building consents for Blocks H and I.

1.10 In making my decisions, I have considered:

- the submissions of the parties and the neighbour
- the report of the independent expert commissioned by the Ministry to advise on this dispute ("the expert")
- the other evidence in this matter.

1.11 Relevant extracts from the legislation are set out in Appendix A.

[3] Under sections 177(1)(b) and 177(2)(d) of the current Act
[4] In this determination, references to sections are to sections of the Act and references to clauses are to clauses of the Building Code.
[5] Determination 2012/007 The compliance of tiled decks to three proposed buildings in a retirement village (8 February 2012)

2. The building work

2.1 The building (Block A) is one of fourteen blocks at the retirement village. Block A is a three-storey apartment building containing seven residential apartments and garages. The building is in a high wind zone for the purposes of NZS 3604[6].

2.2 The building comprises a reinforced concrete waffle slab foundation with precast concrete floors and walls at the first and second storeys. The third storey of the building is timber-framed with a combination of weatherboard and fibre cement sheet cladding. The building has aluminium window joinery and a 20° pitched timber-framed roof clad with profiled steel.

2.3 The building has six concrete decks to the second and third storeys of the building. Two of these decks are above garages, three above external patios, and one is above a habitable space.

2.4 The consented decking system consisted of direct fix tiles installed over a 1.5mm grey butyl rubber membrane with an acoustic mat to deck areas located over habitable spaces; the system was to be installed over a plaster screed laid to falls. The decks also incorporated concrete nibs and top fixed balustrades as per the original construction of the buildings.

2.5 The as-built decking system comprises the same 1.5mm grey butyl rubber membrane, but the membrane is protected by structural ceramic tiles supported on proprietary plastic pedestal supports to provide a walking surface; the tiles can be readily removed. Pedestals with acoustic pads are used to support tiling located over habitable spaces. The as-built membranes have slopes of between 1.3° and 1.9°.

2.6 The butyl rubber membrane has a current BRANZ appraisal that states the membrane will comply with Clauses E2 and B2 of the Building Code, providing the system is 'designed, used, installed and maintained' according to the conditions described in the certificate. The conditions for concrete substrates include membranes to decks to be continually protected from exposure to UV light and physical damage by ceramic or stone tile finishes (elsewhere the appraisal referred to tiles being adhesive-fixed to the membrane).

2.7 The as-built decks have external gutters and a proprietary balustrade system, with the balustrade fixing detail being side-fixed to the edge of the concrete with angle brackets.

3. Background

3.1 The building consent for remedial work to the building was issued on 30 July 2015 for the replacement of the waterproofing membranes for the decks of Blocks A and C. The proposed building work was recladding the level two and three decks on Blocks A and C.

3.2 The authority carried out inspections on 29 September 2015, 15 March 2016 and 17 March 2016. The inspection record from 15 March 2016 notes the inspection failed and the site notice from this date notes that comment was required from 'the engaged designer' about the lack of internal corner flashings, to review junctions and existing balustrades, and that a revised balustrade fixing method for waterproofing was required. The inspection record for 17 March 2016 notes the inspection passed. The notes record the agent was present at this meeting, that minor detailing changes were

[6] New Zealand Standard NZS 3604:2011 Timber Framed Buildings

discussed, and that the next inspection would be the screeds, with a flow test required.

3.3 The agent subsequently identified that changes were required to the consented building work. The agent contacted the authority by email on 7 April 2016 and advised of the following changes:

- replacing the direct fixed tiles with removable structural tiles on pedestal supports
- replacing concrete nib upstands with external gutters
- replacing the top-fixed balustrades with side-fixed balusters using the as-built balustrade fixings for all the areas with gutters and short sides that have nibs short enough to fix the balusters between the concrete panels and columns. The agent noted the change to the side-fixed balusters would significantly reduce the number of penetrations through the waterproofing membrane.

3.4 The authority responded on 8 April 2016, stating:

> Screeding falls, etc as per approved detailing can be done as a minor variation.
>
> Balustrades don't appear to be an issue and can be done also as a minor variation as long as PS1[7] is supplied and supporting documentation.

The authority also stated that the plans would be required on site along with the on-site minor variation application form.

3.5 On 14 April 2016, the agent sent the revised drawings and specifications to the authority by email, with further administrative correspondence between the parties on 15 April 2016.

3.6 The agent's records show the revised drawings and specifications were sent to the site of the works on 18 April 2016.

3.7 Based on records of correspondence provided by the agent, the builder advised the agent that some areas of the deck had falls at 1.2°. The agent subsequently consulted with the membrane supplier, and following a review of the drawings and details the supplier provided a letter dated 6 May 2016 confirming the supplier's view that reduced pitch falls were adequate and that a 20 year warranty would be available, noting:

> … when [the membrane] is utilised with laps formed parallel to falls, using the [supplier's] seam tape system, it is possible to apply [the membrane] at a reduced pitch (1.0 degrees) without affecting long term performance of the membrane.

3.8 The authority carried out an inspection on 4 May 2016 to inspect the deck falls. The authority subsequently issued a site notice with the same date which states:

> Fall to decks is outside what is stipulated on consent, need to be addressed by designer, manufacturer and applicator need to confirm falls are satisfactory.
>
> Manufacturer will need to confirm falls are satisfactory with a site specific letter and warranty at the end of construction.
>
> All the above is required to be provided under a minor variation for [the authority] to view prior to work proceeding.

3.9 The authority carried out inspections on 11 May 2016 and 13 May 2016. The inspection records for these inspections noted the inspections passed and:

[7] Producer Statement - Design

- 11 May 2016 – east side decks membrane, 2° plus falls, upstands and lap were seen; west side decks overflows and outlet, 2.1° to 0.8° falls at gutter, upstands seen, and a water test was conducted with water travelling to the downpipe and not the overflow
- 13 May 2016 – the membrane was seen (units 2, 3, and 4, on level 2), and it was clean, appears well sealed with joins well fixed.

3.10 On 16 October 2018[8], the authority carried out an inspection of the decks. The authority subsequently issued a notice to fix (NO: 21419359) on 25 October 2018, which was subsequently amended, with a revised notice issued on 26 October 2018.

3.11 Based on the information provided in the application for determination, the parties exchanged email correspondence between 6 December 2018 and 21 March 2019 about the building work that had been carried out, the issues identified in the notice to fix, and the documentation.

3.12 The authority issued an updated notice to fix (NOT21437528) for Block A on 25 March 2019. The notice to fix stated:

> [The authority] conducted a site inspection in relation to [the building consent] and as a result of this inspection has identified that building work has been undertaken contrary to [section 40] of the Act.
>
> - Cladding installation and junctions with deck parapets have been completed without the required building inspections to ensure compliance. On 15 March 2016 [the authority] requested comment from designer as to the re-use of back flashing materials. [The authority has] no evidence that designer input was given.
> - A new barrier system has been installed that has fixing detail different from the barrier specified on the consented plans.
> - Decking tiles have been laid on tile jacks instead of direct fixed to waterproof membrane.
>
> ,,,
>
> Cladding and parapet junctions were not inspected by [the authority] and it cannot be verified if Building Code B1, B2 and E2 have been complied with.

3.13 Following the issue of the notice to fix (refer to paragraph 3.12), there was further correspondence between the parties between 28 April 2019 and 9 May 2019 about the revised documentation and whether the work would be considered a minor variation.

3.14 The Ministry received an application for a determination on 19 July 2019.

4. The submissions and the draft determination

4.1 The initial submissions

4.1.1 On behalf of the applicant, the agent provided a submission accompanying the application, which explained the background to the dispute and noted:

- the agent had attempted to resolve this issue by suggesting that the revised drawings and documentation be resubmitted to be considered as a minor variation, along with producer statements that support the as-built construction

[8] It is not known what transpired between the 2016 inspections referred to in paragraph 3.9 and 2018 inspection in paragraph 3.10.

- the agent has completed a detailed inspection to confirm the as-built construction complies with the revised drawings and documentation and is performing in accordance with the Building Code
- the authority should consider issuing a code compliance certificate for the building work, as a certificate of acceptance is not appropriate in the circumstances
- it is not possible to conclusively state what information was available to the inspectors at the time the building work was inspected, due to the passage of time.

4.1.2 The agent provided copies of:

- the amended drawings
- inspection records dated 11 May 2016 and 13 May 2016
- notice to fix NOT21419359 for Block A dated 25 October 2018, and updated notice to fix NOT21419359 reissued on 26 October 2018
- notice to fix NOT21419359 for Block A dated 25 March 2019
- emails between the agent and membrane supplier dated 18 April 2016 and a letter from the membrane supplier about the falls and warranty
- emails between the agent and the authority dated 7 to 8 April 2016, 6 December 2018 to 21 March 2019, and 28 April 2019 to 9 May 2019
- photographs of the decks and falls.

4.1.3 The authority acknowledged the application on 12 August 2019 and provided a submission that noted:

- falls were not included in the notice to fix as the inspector had sighted correspondence from the membrane supplier that a warranty would be provided, however, it does not relieve the requirement for reduced falls to be considered under a minor variation
- the inspection records note that some falls did achieve the required 2°, however, certain areas did not, and the designer and supplier were asked to respond. Although a minor variation may have been delivered to site, there is nothing to confirm that the application was presented to the inspector to assess at the time.

4.1.4 The authority provided a submission dated 29 November 2019, which included:

- inspection records
- building consent processing records
- the building consent plans and specifications
- a copy of Determination 2012/007.

4.1.5 The neighbour provided a submission received on 19 September 2019 with documents attached that relating to the processing of the building consent. The neighbour noted:

- the authority incorrectly issued the building consent because a number of the specified products were for internal use only

- there was no assessment of evidence provided by the agent that the components of the consented decking system were compatible materials or part of an Acceptable Solution[9]
- all conditions of the building consent should be fulfilled, including the condition that required the agent to implement a comprehensive quality assurance programme, and sign off all quality assurance records prior to the issue of a code compliance certificate.

4.1.6 The neighbour provided a further submission dated 7 January 2020, with a letter from the neighbour's building surveyor, which was about the authority's processing of the building consent for Block D, with respect to the waterproofing system for the decks.

4.2 The draft determination and submissions received

4.2.1 A draft determination was issued to the parties for comment on 11 June 2020. The draft was sent to the neighbour on 24 June 2020; the delay arose from a change in email address for the neighbour.

4.2.2 The agent accepted the draft determination on 15 June 2020 without comment.

4.2.3 The authority accepted the draft determination on 2 July 2020, provided copies of its form for an application for on-site minor variations of approved plans and its practice note for amendments and minor variations, and submitted (in summary) that:

- the building consent application provided several options for the waterproofing membrane, and in a response to the authority's request for further information, the agent confirmed the 1.5mm butyl rubber membrane would be used
- the authority was not unwilling to approve the changes listed as a minor variation, but the authority provided advice by email (refer to paragraph 3.4) that subject to the documents being provided on site together with the correct form (the authority's form for an application for on-site minor variations of approved plans), it would assess the request
- the authority accepts the minor variation is an acceptable way of resolving the issue, subject to the relevant documents such as a PS3[10] for the balustrade fixing changes being provided
- as a result of the photos taken by the expert, the authority and agent visited the site and the authority identified further changes that have occurred on site that are not in the consented plans or the proposed minor variation, but noted these changes could be considered minor variations and included in the minor variation application
- the authority also considered "the 'trend' to use as-builts and the [minor variation] process after the event for more substantial work … does not follow the intent of the regulations."

4.2.4 The agent responded to the authority's submission on 7 July 2020, noting he generally agreed with the authority's response.

[9] Section 22(2) of the Act say: "A person who complies with an acceptable solution … must, for the purposes of [the] Act, be treated as having complied with the provisions of the building code to which that acceptable solution … relates.
[10] Producer Statement - Construction

5. The expert's report

5.1 As mentioned in paragraph 1.10, I engaged an independent expert to assist me. The expert is a Registered Architect in voluntary suspension and member of the New Zealand Institute of Architects. The expert inspected the building on 5 December 2019, providing a report completed on 28 January 2020, which was forwarded to the parties on 29 January 2020.

5.2 The expert used the E2/AS1[11] risk matrix to assess the level of weathertightness risk. The expert noted that the building is outside the scope of E2/AS1, and so the score is not strictly relevant, however it is noted it provides an indication of weathertightness risk. The expert assessed deck 1A on the east elevation to have a 'high' level of weathertightness risk, and decks 1B and 1C on the west elevations to have a 'medium' weathertightness risk.

5.3 The expert noted that the decks have a specified slope of 1.4° in the drawings. The expert measured the as-built slope of the decks as:

- Unit 1A – 1.9°
- Unit 1B – 1.8°
- Unit 1C – 1.5° and 1.9°
- Unit 2 – 1.4°
- Unit 3 – 1.3°
- Unit 4 – 1.3°.

5.4 The expert noted that the 1.3° slopes of the Unit 3 and 4 decks is a slope reduction of 6mm from the drawings, however this is unlikely to lead to a risk of non-compliance with the Building Code.

5.5 The expert inspected key details of the decks by lifting tiles to inspect the as-built decking system. The expert was of the view that the visible parts of the membrane exposed during the inspection were installed to a good standard, with adequate slope, sound laps, and upstands at junctions as indicated on the drawings.

5.6 With respect to the as-built decking system, the expert noted:

Lap joints (decks 1A and 3)

- the lap joints appeared to be formed with 50mm lap tape and were soundly adhered at the edges
- the drawings indicate a second layer of the membrane at corners, which appears to have been fixed with lap tape

Level 3 upstand (deck 1A)

- the visible parts of the as-built detail were generally as indicated on the drawings and appeared adequate
- the vertical tiles and flashing over them indicated on the drawing were omitted, although this will not adversely affect the weathertightness of the detail
- it was not possible to measure the height of the membrane upstand non-invasively

[11] An Acceptable Solution for Clause E2 External moisture

Door upstand (deck 1A)

- the visible parts of the as-built details were generally as indicated on the drawings and appeared adequate
- the vertical tiles and flashing over them indicated on the drawing were omitted, although this will not adversely affect the weathertightness of the detail provided the other unseen parts of the detail are as drawn, particularly the epoxy plaster and air seal over a backing rod
- the membrane upstand was approximately 80mm

Concrete wall upstand

- the membrane upstand at abutments with concrete walls was concealed behind vertical tiles
- the visible parts of the as-built detail were generally as indicated on the drawings, except that the over flashing was a two-part flashing with sealant joints between the top angle and the flashing and to the wall face

Cap flashings (decks 1A, 2 and 4)

- the abutments to sloping roof with cap and saddle flashing were concealed
- the visible parts of the as-built detail were generally as indicated in the drawings, including the welded transition from saddle to cap flashing.

5.7 The expert commented on the as-built balustrade fixings, noting that new proprietary balustrades had been fixed to the decks at the edge of the concrete with angle brackets. The expert noted:

- this type of fixing does not require a penetration through the membrane and therefore avoids the necessity for seals where they penetrate the membrane and the associated risk of leaks in the event of workmanship defects or deterioration
- the fixings into the concrete were concealed by the gutter so were unable to be inspected
- a PS3 should be provided in respect of this work to provide assurance of the correct fixing of the balustrade.

5.8 The expert noted the following mitigating factors that may be expected to contribute to the durability and robustness of the deck waterproofing:

- the deck tiles protect the membrane from sunlight, and hence UV degradation, and the extremes of thermal movement which the membranes are commonly subject to
- the structure is concrete and consequently thermal and moisture movement and resultant stresses in the membrane will be less than for a timber structure which the membranes are commonly fixed to, and which are a solution provided by E2/AS1
- the concrete structure has a high resistance to water damage in the event of any leaks consequent to damage to the membrane
- the tiles as laid, on discs, are easily removed for inspection and maintenance of the membrane.

6. Discussion

6.1 General

6.1.1 The matter to be determined is whether the authority was correct in its purported decision to refuse to issue a code compliance certificate.

6.1.2 I note that the refusal is purported as a code compliance certificate has not been applied for by the applicant or agent, and the authority has not issued a section 95A notice in respect of the building work carried out.

6.1.3 In order to consider this matter, I must consider the purported reasons for the refusal. The authority issued a notice to fix for the work (refer to paragraph 3.12), which referred to:

- the lack of evidence provided to the authority that input from a designer was obtained as to the re-use of the back-flashing materials
- the as-built balustrade fixings not being in accordance with the building consent
- the as-built decking system not being in accordance with the building consent as the tiles were laid on pedestals instead of direct fixed to the membrane
- cladding and parapet junctions were not inspected by the authority and it cannot verify that the building work complies with the Building Code.

6.1.4 Given the items identified by the authority in the notice to fix, I am of the view that I must consider:

- the Building Code compliance of the as-built decking system.
- whether the as-built changes (as noted on paragraph 3.3) can be considered a minor variation.

6.2 Compliance of the as-built decking system

6.2.1 The relevant performance requirements of Clause E2 are provided for in Clauses E2.3.1, E2.3.2, and E2.3.7:

> E2.3.1 Roofs must shed precipitated moisture. In locations subject to snowfalls, roofs must also shed melted snow.
>
> E2.3.2 Roofs and exterior walls must prevent the penetration of water that could cause undue dampness, damage to building elements, or both.
>
> E2.3.7 Building elements must be constructed in a way that makes due allowance for the following:
>
> (a) the consequences of failure:
>
> (b) the effects of uncertainties resulting from construction or from the sequence in which different aspects of construction occur:
>
> (c) variation in the properties of materials and in the characteristics of the site.

6.2.2 I note that the authority's concerns relating to Building Code compliance appear to relate to the lack of inspections to key junctions. However, I note the authority carried out inspections where the installed membrane was viewed (refer to paragraph 3.9).

6.2.3 The expert removed tiles to inspect key details (refer to paragraphs 5.5 and 5.6), including:

- the membrane lap joints
- the membrane upstand and weatherboard cladding junction
- the membrane upstand and door junction
- the membrane upstand and concrete wall junction.

6.2.4 Based on the inspection of these joints and key junctions, the expert stated that the parts of the membrane that were exposed during the investigation were installed to a good standard, with adequate slope, sound laps and upstands at junctions generally as indicated on the drawings (refer to paragraphs 5.5 and 5.6).

6.2.5 I am of the view that this can be considered as evidence of an adequate standard of installation, including in those areas that it was not possible to inspect.

6.2.6 With respect to the authority's point about the re-use of the back flashing materials, I note the existing apron flashing and its connection with the new saddle flashing is shown in the revised drawings, and therefore I consider it reasonable to assume that the agent considered this detail and provided input into the re-use of the flashing material. I note the agent was present at the site for a number of the inspections that were carried out by the authority.

6.2.7 I note the expert's comments with respect to the use of the E2/AS1 risk matrix (refer to paragraph 5.2) and that an assessment can be made to provide an indication of the level of weathertightness risk. The expert assessed the decks to have a mixture of medium and high weathertightness risk.

6.2.8 The as-built decking system has the following mitigating features, which can be expected to contribute to the durability and robustness of the installation:

- The substrate is concrete construction. This provides a rigid substrate for the membrane and tiles, with little risk of thermal and moisture movement and deflection over time. This is particularly notable when compared to the movement from a timber substrate, which butyl membranes are commonly fixed to in New Zealand, and which are provided for by Acceptable Solution E2/AS1.
- The concrete structure has a high resistance to water damage in the event of any leaks due to damage to the membrane.
- The tiles installed on pedestals protect the membrane from sunlight and therefore the effects of UV radiation and the extremes of thermal movement that butyl membranes are commonly subject to. The tiles also protect the membrane from the risk of damage from foot traffic.
- The tiles installed on pedestals are easily removed for inspection and maintenance of the membrane, compared to direct fixed tiles that are commonly applied to butyl membranes subject to foot traffic.

6.2.9 I agree with the expert's view that further assurance is provided by the applicator warranty which warrants that the supplier's instructions were complied with (refer to paragraph 3.7).

6.2.10 I consider that the combination of the evidence of an adequate standard of installation, the mitigating features that contribute to the expected durability and robustness of the installation, and the assurance provided by the applicator warranty provide reasonable grounds to conclude that the as-built decking system complies with the relevant performance requirements of Clause E2 of the Building Code.

6.3 Whether the changes can be considered a minor variation

6.3.1 As described in paragraph 6.1.4, I must also consider whether the changes to the consented work can be considered a minor variation.

6.3.2 The sections of the Act that apply to variations to building consents are sections 45 and 45A (see Appendix A). A minor variation is defined in the Building (Minor Variation) Regulations 2009 ("the Regulations'):

> (1) A minor variation is a minor modification, addition, or variation to a building consent that does not deviate significantly from the plans and specifications to which the building consent relates.
>
> (2) The following are examples or minor variations and do not constitute an exhaustive list:
>
> a) substituting comparable products (for example, substituting one internal lining for a similar internal lining):
>
> b) minor wall bracing changes:
>
> c) a minor construction change (for example, changing the framing method used around a window):
>
> d) changing a room's layout (for example, changing the position of fixtures in a bathroom or kitchen)
>
> …

6.3.3 The purpose of the Regulations is to set out when changes to building work do not require an amendment to a building consent. A minor variation generally does not affect the level of Building Code compliance; it simply achieves a compliant outcome but in a different way.

6.3.4 The Ministry's guidance[12] recommends agreement to minor variations be sought beforehand. However, for the purpose of this determination, this does not preclude consideration whether the changes to the as-built decking system and the external gutters and as-built balustrade fixings fall within the scope of a minor variation.

6.3.5 The Ministry's guidance outlines a three-step process for an authority to consider whether a variation from the consented building work is a minor variation. The first step is in regard to whether the building work is required to comply with the Building Code. If not, the authority does not need to approve this work. The second step considers whether the proposed change comes within the definition of 'minor variation' as outlined in the Regulations (refer to paragraph 6.3.2). The third step considers whether the proposed change:

- complies with the Building Code
- reflects common appropriate industry practice or standards
- does not significantly increase the likelihood of a building element's performance failure.

6.3.6 In respect of the first step described in the Ministry's guidance, it is clear the work is building work that is required to comply with the Building Code.

6.3.7 In respect of the second step, I have considered the examples provided in the Regulations (refer to paragraph 6.3.2). These examples suggest that limited changes can be made to a construction method and be classified as a minor variation to a

[12] https://www.building.govt.nz/projects-and-consents/build-to-the-consent/making-changes-to-your-plans/minor-variations-guidance/how-bcas-should-assess-and-process-minor-variations/

building consent. I would expect a minor variation to perform in the same manner as the approved work.

6.3.8 In this case:

- the as-built decking system would be expected to perform in the same manner in as the approved work
- the use of external gutters does not change the structural performance of the decks, and the removal of the concrete nibs and inclusion of additional gutters improves the drainage and flow of water from the decks
- the as-built balustrade fixings as a side-fixing detail compared to the consented top fixing detail is not a significant change in terms of the structural design and does not impact the overall structural performance of the decks.

6.3.9 In respect of the third step, I have considered whether the changes comply with the Building Code, whether the changes reflect common appropriate industry practice or standards, and whether any of the changes significantly increase the likelihood of a building element's performance failure.

6.3.10 With respect to the as-built decking system, I have already concluded this work complies with the Building Code (refer to paragraph 6.2.10). I also note as-built decking system is described in Acceptable Solution E2/AS1, and the system reflects standard practice with butyl rubber membranes widely used in New Zealand. The construction also incorporates mitigating features compared to other applications (refer to paragraph 6.2.8) and does not increase the likelihood of performance failure.

6.3.11 With respect to the external gutters, I am of the view the installation complies with the Building Code based on the evidence contained in the expert's report and the authority's inspection records (refer to paragraph 3.9), which considered the falls and flow of water. I consider the solution is appropriate and reflects common practice.

6.3.12 With respect to the as-built balustrade fixings, although the fixings were unable to be inspected, they are part of a standard proprietary system and are subject to a producer statement. I am of the view that compliance of the fixings with the Clauses B1 and B2 can be verified though the provision of a statement that verifies the on-site construction of the fixings.

6.3.13 I also note the balustrade system is a standard design and reflects common industry practice, and the change of fixing detail does not increase the likelihood of a failure of the decks or balustrades in terms of Clause B1, and in addition does not require a penetration through the membrane, and therefore reduces the risk of leaks at the connection in the event of defects at the seal or deterioration.

6.3.14 Therefore, for the reasons discussed in paragraphs 6.3.6 to 6.3.12, I conclude the changes do not represent a significant deviation from the consented plans, and can be treated as a minor variation to them. This means the as-built work is covered by the building consent, with it to be recorded by the authority as described in the Ministry's guidance[13].

[13] https://www.building.govt.nz/projects-and-consents/build-to-the-consent/making-changes-to-your-plans/minor-variations-guidance/what-is-a-minor-variation/

7. The decision

7.1 In accordance with section 188 of the Building Act 2004, I hereby determine that:

- the as-built decking system complies with Clauses E2 and B2 of the Building Code. Compliance with Clause B1 can be verified through the provision of documentation that verifies the hidden fixings.
- the authority was incorrect in its purported refusal to issue the code compliance certificate. I reverse that decision, requiring the authority to make another decision taking into account this determination.

Signed for and on behalf of the Chief Executive of the Ministry of Business, Innovation and Employment on 14 August 2020.

Katie Gordon
Manager Determinations

Appendix A: The legislation

A.1 The Building Act 2004

40 Buildings not to be constructed, altered, demolished, or removed without consent

(1) A person must not carry out any building work except in accordance with a building consent ...

45 How to apply for building consent

(1) An application for a building consent must—

(a) be in the prescribed form; and ...

(4) An application for an amendment to a building consent must,—

(a) in the case of a minor variation, be made in accordance with section 45A; and

(b) in all other cases, be made as if it were an application for a building consent, and this section, and sections 48 to 51 apply with any necessary modifications.

45A Minor variations to building consents

(1) An application for a minor variation to a building consent—

(a) is not required to be made in the prescribed form; but

(b) must comply with all other applicable requirements of section 45.

(2) Sections 48 to 50 apply, with all necessary modifications, to an application for a minor variation.

(3) A building consent authority that grants a minor variation—

(a) must record the minor variation in writing; but

(b) is not required to issue an amended building consent.