Determination 2022/017

Regarding the refusal to issue a code compliance certificate for weathertightness remedial work on a townhouse

12 Marina View, Paremata, Porirua

Summary
This determination considers whether the authority was correct to refuse to issue a code compliance certificate for remedial recladding work. The determination considers whether the building work complies with clauses B2 *Durability* and E2 *External moisture*.

The legislation discussed in this determination is contained in Appendix A. In this determination, unless otherwise stated, references to "sections" are to sections of the Building Act 2004 ("the Act") and references to "clauses" are to clauses in Schedule 1 ("the Building Code") of the Building Regulations 1992.

The Act and the Building Code are available at www.legislation.govt.nz. Information about the legislation, as well as past determinations, compliance documents (e.g., Acceptable Solutions) and guidance issued by the Ministry, is available at www.building.govt.nz.

1. The matter to be determined

1.1. This is a determination made under due authorisation by me, Katie Gordon, National Manager Building Resolution, 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:

1.2.1. the current owners of the townhouse, I and R Gault ("the applicants"), represented by the architect for the weathertightness remediation work ("the architect")

1.2.2. Porirua City Council ("the authority"), carrying out its duties as a territorial authority or building consent authority.

1.3. The contractor for the original development and the weathertightness remediation work is considered a person with an interest in the determination. The contractor did not make any submissions during the determination.

1.4. This determination arises from the authority's decision to refuse to issue a code compliance certificate for weathertightness remediation work carried out to a townhouse ("Townhouse 12") in a 12-unit development ("the development"). The authority considers that the remediation work to Townhouse 12 does not comply with certain clauses of the Building Code, in particular clauses B1 *Structure*, B2 *Durability* and E2 *External moisture*.

1.5. The matter to be determined[2] is the authority's decision to refuse to issue a code compliance certificate for the remediation work to Townhouse 12. In deciding this matter, I must consider whether the remediation work to Townhouse 12 complies with the relevant clauses of the Building Code.

1.6. In making this determination I have also considered the scope of the building work that formed the building consent. The authority considers that work covered by the

[1] The Building Act 2004, section 185(1)(a) provides the Chief Executive of the Ministry with the power to make determinations.

[2] Under sections 177(1)(b) and 177(2)(d) of the Act.

building consent included the replacement of original timber framing which was affected by moisture ingress. It has taken that into consideration in its refusal.

1.7. The architect has sought an amendment of the building consent to modify the durability provisions to allow the periods specified in clause B2.3.1 to commence from 2007. In assessing the compliance of the building work against the performance criteria in the Building Code, I have taken into account the age of the building work and the anticipated modification of the durability provisions.

Matters outside this determination

1.8. The authority has refused to issue code compliance certificates for the remediation work for a number of other townhouses within the development. This determination is limited to matters relating to Townhouse 12; except for the inter-tenancy wall with the adjacent townhouse ("Townhouse 14"), it does not consider the other townhouses. Information regarding the other townhouses and reference to the collective group of owners of the townhouses is included for context only.

1.9. Townhouse 12 was also the subject of an agreement reached between parties who were involved with a claim that arose from a weathertightness investigation. This determination does not consider whether the scope of the building consent (No. ABA 50637) or the building work that was carried out satisfies or is in accordance with that agreement – those matters are outside the scope of section 177 of the Act. Reference to the weathertightness investigation and agreement are included as context.

2. The building work and background

The development

2.1. The 12-unit townhouse development is situated on a near level, harbourside building site, in a sea spray zone and very high wind zone[3]. The development is made up of two blocks of semi-detached terrace houses and one detached house, as shown in Figure 1.

[3] As set out in New Zealand Standard NZS 3604:2011 Timber-framed Buildings.

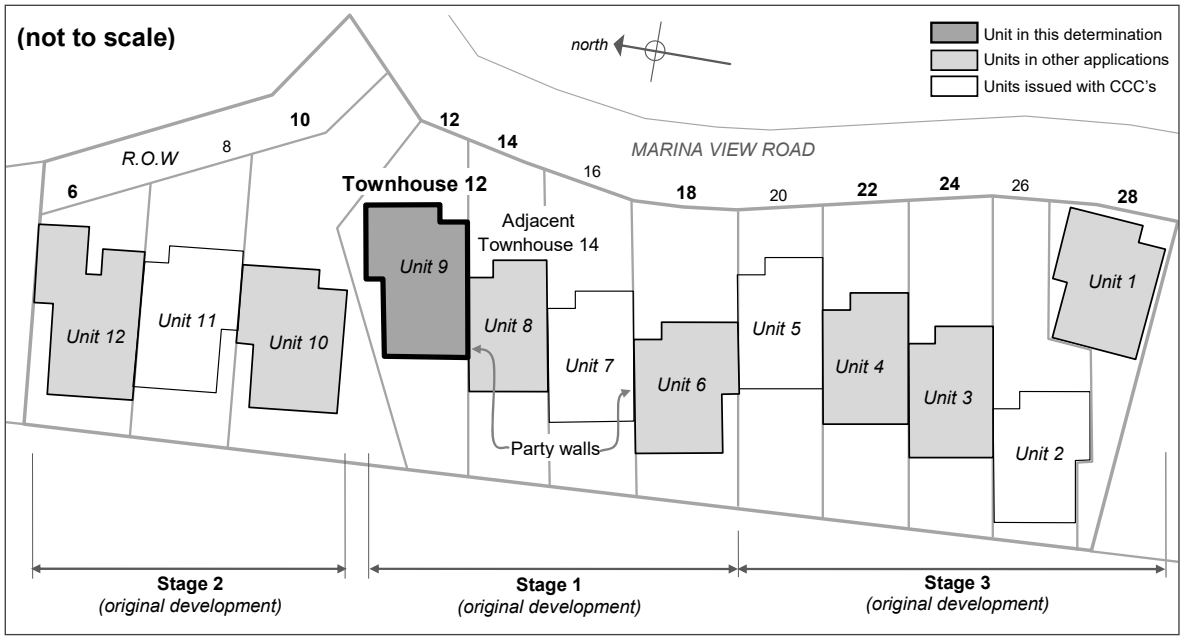

Figure 1: The townhouse development

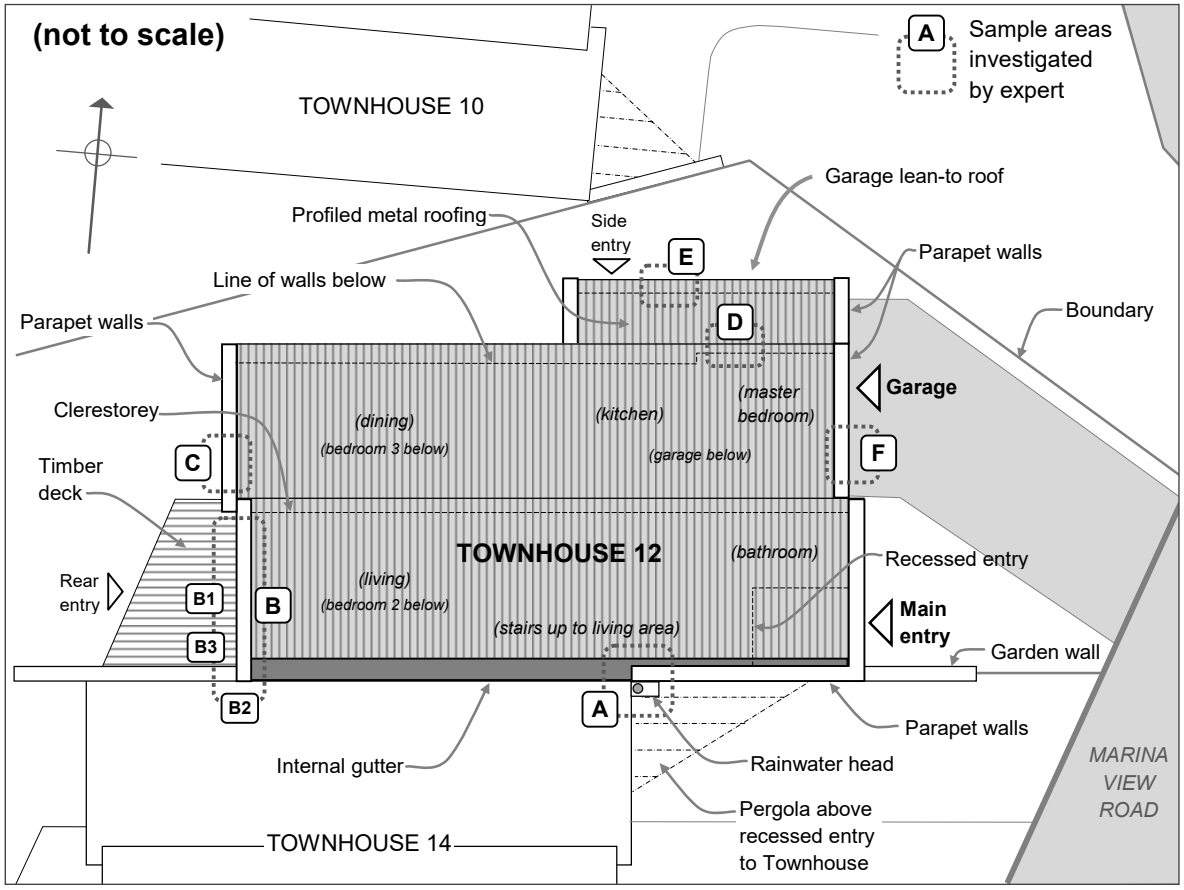

Figure 2: Expanded site plan – Townhouse 12

Townhouse 12

2.2. The general layout of Townhouse 12 is shown in Figure 2. The dwelling has been constructed with a conventional light timber frame, concrete foundations and floor slabs, timber framed upper floors, monolithic wall claddings, aluminium-frame windows, and profiled metal roofing cladding. The drawings for the original construction note the wall cladding as EIFS[4], installed over building paper, with the cladding fixed directly to the wall framing.[5] The block that includes Townhouse 12 is moderately complex in plan and form.

The original construction

2.3. I have seen limited records of the original consent documentation, but it appears that the original development was constructed in three stages under three building consents, between 1995 and 1997. Code compliance certificates were issued on completion.

2.4. During 1997, the original site was subdivided into separate freehold titles as shown in Figure 1. The titles for Townhouses 12, 14, 16 and 18 (Stage 1, Units 6 to 9) were issued on 7 April 1997.

The original timber framing

2.5. The specification for the original development called for the framing to be in accordance with NZS 3602[6] and included reference to H1 timber treatment. In 1996, H1 timber treatment (in accordance with NZS 3602) required a level of boron appropriate for a primary risk of insect attack rather than the risk of decay.[7]

2.6. Samples of the original timber framing taken for laboratory testing identified one sample as untreated Douglas-fir and detected no preservatives in one other sample. The remaining five samples were identified as boron-treated[8] to Hazard Class 1 of NZMP3640:1992[9] (see paragraph 4.12).

2.7. Taking into account the date of construction, the expert's report and the other evidence, I accept that most of the original external wall and roof framing is likely to be boric treated, but not to a level that provides significant resistance to fungal decay.

[4] External Insulation and Finish System.
[5] No window details were provided.
[6] NZS 3602:2003 Timber and wood-based products for use in building.
[7] 0.04 percent BAE (Boric Acid Equivalent) to achieve H1 up to 2003 compared with 0.4 percent from 2004 to achieve H1.2.
[8] Where the primary risk was defined as insect attack.
[9] NZMP3640:1992 Specification of the minimum requirements of the NZ Timber Preservation Council Inc.

The WHRS report and agreement

2.8. Townhouse 12 and the other units in the development were the subject of a Weathertight Homes Resolution Service (WHRS) investigation in the early 2000s. I have seen a copy of one WHRS inspection report[10] and part of another report[11], which both state that the buildings:

> ...do not have a recognised EIFS wall cladding system, including not having appropriate proprietary flashings systems around all doors and windows, because of the amount of cracking of the plaster and because of the likely number of leaks which will require opening up of the cladding to check for damage …

2.9. Work required to repair Townhouse 12 and the other townhouses was listed in the report, and included (in summary):

2.9.1. Remove pergolas, planters, decks, wing walls and 'entire wall cladding system'

2.9.2. Remove all decayed timber framing and replace with new treated timber using currently recognised industry guidelines

2.9.3. Lower ground levels or install drainage channels

2.9.4. Install proprietary EIFS cladding over drained cavity and new building wrap

2.9.5. Alter roof flashings to suit new cladding system

2.9.6. Modify internal gutters to prevent overflows and provide for overflow

2.9.7. Reinstate pergolas and decks with 12mm drainage gap at wall junctions.

2.10. On 1 June 2004, an agreement was reached between the parties involved with the claim for the development ("the 2004 agreement"). Much of the 2004 agreement is handwritten or includes annotations on a typed text. A 'schedule of work' is referred to, which appears to be a very brief scope of work initialled by parties. It states:

> Cavity system
>
> - New cladding – cavity – painting
> - Parapet flashings
> - Windows extended out
> - New paint system
> - Extend all G lines down to 1000 or drainage? As need be
> - Overflows [for] internal gutter

[10] Report No.111.
[11] Report No. 077/6 Page 13 of 32.

Target work

- Replace framing [as] need be
- Internal walls – redecorate as need be to stopping
- Decks rebuilt if leaking
- Extend ground levels lower where problem caused by wicking

2.11. The 2004 agreement states:

1. The parties will perform the following parts of the works:

a) [Roofer] all roofing flashings and associated works

b) [EIFS installer 1] all exterior cladding work on the units in Stage 1 of the development

c) [EIFS installer 2] all exterior cladding work on the units in Stages 2 and 3 of the development

d) [Architect] consent application, drawings & specification, supervision, site meetings

e) [Contractor] all other building and site works necessary to complete the works described in the schedule of works.

The building consent for the remediation work

2.12. Documentation was prepared for a building consent for the remediation work, with plans, elevations, sections and large-scale detail drawings dated August and September 2004. The architect applied for building consents for the work in late 2004.

2.13. Building consent No. ABA 50637 was issued for Townhouse 12 on or around 7 February 2005[12], under the Building Act 1991.[13] The stamped and approved site plan included the following handwritten statement:

> Require full supervision by [the architect] and PS4 to be supplied by [the architect] stating works as consented comply with [Building Code].

2.14. The remediation work was carried out to Townhouse 12 in 2005. Based on the approved building consent documentation, that work included:

2.14.1. removal of original direct-fixed EIFS wall cladding and windows, replacement with new EIFS cladding with a cavity system, windows and doors re-installed to suit, and new flashings to parapet walls

[12] The drawings for consent No. ABA 50637 are stamped as approved on 7 February 2005.
[13] Part 2 of the Building Act 2004 came into force on 31 March 2005.

2.14.2. removal and replacement of defective high-risk features such as timber decks, wing walls, and attached pergolas and planters

2.14.3. roof repairs including new flashings to roof/wall junctions and eaves, and new overflows to internal gutters.

2.15. The approved building consent documents include replacement of a wing wall, but do not otherwise include any mention of replacement of damaged timber framing. There are no references, drawings, or specifications relating to any building work to replace the original timber framing. However, based on photographs taken at the time it appears some timber framing was replaced when the remedial work was undertaken.

2.16. The plans are annotated (as follows) to indicate where there was damage to the interior, but no details were included in the plans or specifications to rectify that damage:

> [Plasterboard] discoloured
> Moisture damage – [Plasterboard] and carpet
> Leaking [Plasterboard] removed lower level

2.17. The replacement EIFS cladding system consists of polystyrene backing sheets fixed to the wall framing through polystyrene battens and building wrap, and finished with a proprietary plaster coating system. The system includes both purpose-made and proprietary flashings to windows, edges and other junctions. The consent details noted 'windows to be taken out and moved 25mm from framing face'.

2.18. The building consent included a 'project inspection check sheet', which identified that the authority required the following inspections:

> pre-cladding (subfloor connections & bracing, hold down systems etc)
> pre-lining (bracing elements, moisture content, insulation etc),
> post-lining (bracing sheets, nail centres, materials etc), and final inspections.

2.19. It appears that work to the townhouses was progressively completed during 2005 and substantially completed by 2007. Revised details were provided to the authority in 2005 concerning the type of cladding fixings used, coating requirements, details relating to the clearance between the cladding and channel drain, and flashing details.[14] No amendment was sought or revised plans provided in relation to replacement of the timber framing.

2.20. Final inspections of the work were sought, and the authority issued code compliance certificates for the remediation work for Townhouses 8, 16 and 20 between 2006 and 2010.

[14] The details do not reference a particular building consent, so I take it that the details provided were relevant to remedial work being carried out to several units.

The application for a code compliance certificate

2.21. In an email to the architect on 21 January 2010, the authority noted that 'confirmation and evidence' would now be required in regard to supervision of remediation work by the architect as required by the agreement and the consent drawings. The authority stated that the 2004 agreement had been reviewed and:

> ...nowhere does it state or imply that [the authority] would 'simply' issue the code compliance certificates … upon receipt of the required information. Although it appears that [the authority] may have already mistakenly done this, the remaining code compliance certificates will only be issued when all requirements of the agreement have been met.

2.22. Following a meeting and correspondence between the architect, contractor, and the authority about the process, the architect applied for a code compliance certificate for Townhouse 12 (along with the remaining townhouses) on 29 September 2010. The application included coating warranties, data sheets and the architect's attached statements confirming that, as per the 2004 agreement, the architect had:

> ...supervised the [work] as per NZIA terms of engagement for architectural services applicable in 2004 and the work complies with the building consent and building code.

2.23. At the authority's request, the architect also attached applications for amendments to building consents, which stated:

> We seek a modification of clause B2.3.1 so that the date of substantial completion is confirmed as 2007 (for this work) rather than date of [code compliance certificate] issue.

2.24. In an email to the architect and contractor dated 30 September 2010, the authority noted it was of the understanding that the architect was to provide confirmation that they supervised the repair work, and confirmation that the work was completed in accordance with the building consent and the Building Code. The authority also noted it required all warranties and guarantees, and evidence to verify the date of substantial completion.

2.25. It appears the authority inspected the townhouses during October 2010. The architect's notes stated (for Townhouse 12):

- walls - 'make good hairline crack above deck' and 'clerestory soffit – reseal head joint'
- internal – 'accepted'
- roof – 'cut back metal flashing to gutter' and 'butynol gutter lip ponding'.

2.26. The authority carried out another inspection in October 2011. The authority subsequently refused to issue a code compliance certificate for Townhouse 12, in a letter dated 21 November 2011. The authority advised the recent building inspection had revealed 'aspects of the building work which do not comply with Clauses B2 and E2' of the Building Code. They also identified the defects 'may have allowed the ingress of moisture or may allow the ingress of moisture in the future'. Therefore, further investigation was needed to establish the 'full extent of defects' and any damage to the underlying timber framing.

2.27. The authority provided a photographic report, dated 21 November 2011, and noted that some aspects of the original construction identified in the WHRS report (see paragraph 2.9) 'may not have been completely rectified' so further investigation was required. The authority stated that it considered a weathertightness expert should be engaged to investigate the external cladding and roofing systems and provide the authority with a comprehensive report in relation to the remedial work.

2.28. In a letter to the authority dated 12 December 2011, the architect and contractor responded to the refusal to issue code compliance certificates for Townhouse 12 and the remaining townhouses. The letter noted (in summary):

2.28.1. Regarding the inspections in October 2011, the authority took many photographs but no 'comprehensive notes'

2.28.2. Regarding the refusals to issue code compliance certificates for the remaining townhouses:

(a) most of the letters sent to the townhouse owners regarding the refusal are non-specific, being in 'a general/generic format'

(b) items from the original WHRS report were raised, despite the 2004 agreement with all agreeing to the scope of a proposed schedule of work

(c) demands for an investigation of the building work by an 'independent qualified expert' are not accepted.

2.29. The architect and contractor noted that:

(a) the units have 'all appropriate guarantees and warranties' from the coating supplier, who can also confirm any remaining remediation work

(b) air seals will be checked and confirmed by the contractor

(c) for re-built timber decks, fixings will be checked and replaced with stainless steel, with a blocked fixing on one deck repaired

(d) some decks were re-located as whole units, so original fixings remain

(e) although damage to original 4mm thick roof cladding was often due to foot damage not associated with the remediation work, any areas of serious damage have been replaced by the contractor

(f) additional strip drainage has been installed as requested by the authority.

2.30. In a letter dated 14 February 2012, the authority referred to a meeting on 9 February 2012 with the architect and contractor[15], and noted:

2.30.1. The inspection reports were provided at the building owners' request.

2.30.2. Some maintenance issues can be excluded as being outside the scope of the building consents, but these should be brought to the owners' attention.

2.30.3. The parties agreed:

(a) The architect will carry out a 'further comprehensive inspection' of each remaining unit, which will outline further work required to bring the remediation work into compliance with the Building Code. The authority will review the proposed work and 'will add any further issues that need to be resolved'.

(b) Once confirmed, the authority will inspect all work undertaken; any additional defects found during the work will also need to be brought into compliance.

(c) All work must accord with the manufacturer's requirements and current warranty conditions, with an approved installer providing written confirmation of such.

(d) Once the authority has satisfactorily inspected the work, code compliance certificates will be issued subject to modification of durability provisions.

2.31. In November 2012, the architect submitted a report based on their inspection of the remaining townhouses. The report included copies of elevations and site plans that were difficult to relate to the attached photographs, due to the lack of notes or cross references. The report consisted of photographs provided by the authority and some additional photographs (presumably taken by the architect), which showed the identified defects with brief descriptions of repair work to be carried out.

[15] I have not seen a record of that meeting.

2.32. Most of the work noted by the architect appeared to involve tidying up plaster and paintwork, repairing minor damage and cracks, trimming wrap, repairing and adding sealants to some flashings, and resealing various joints. Correspondence continued throughout 2013 without resolution of the extent of work required.

2.33. A repair specification from the paint coating supplier dated 2 February 2014 was provided for the subject units, which was based on targeted repairs 'for minor damage to dwellings'. The repair specification covered product and workmanship warranties, control joint installation if necessary, cracking repairs along soffit/fascias and at window junctions and plaster/flashing junctions, surface defects, and repainting.

2.34. On 13 August 2014, a building inspector[16] from a property inspection company provided a report on one of the other units based on non-invasive moisture testing and invasive investigation. The report described evidence of some early-stage decay in framing exposed within the garage, signs of moisture staining to ply and framing within the party wall in the bathroom, and various signs of historic moisture staining to currently dry areas. The report was provided to the authority. A file note records a subsequent site meeting on 10 September 2014 where some internal linings had been removed, exposing black timber that appeared to be the result of historic leaks. Options were discussed, which included applying to amend the building consent to cover further remedial work to the unit, such as replacement of the cladding and work to the internal gutter.

2.35. The remediation work to Townhouse 12 and the remaining units was carried out, and the architect provided the authority with the following progress updates:

- 20 August 2014: 'carpentry and roofing complete, cladding 70 percent complete'
- 28 November 2014: 'remedial schedule attached and agreed work completed and ready for authority inspection for townhouses 6, 10, 12, 14 and 18'.

2.36. In a letter to the authority dated 23 January 2015, the architect confirmed that all work was completed and attached copies of a working document and interim inspection documentation dated 6 November 2014. The architect referred to previous meetings with the authority which had 'agreed an outline for the procedure to conclude the project' and noted:

> The accepted working document included all the items:
>
> - Issues raised by [the authority's] correspondence to each of the dwelling owners dated 21 November 2011.

[16] A member of New Zealand Institute of Building Inspectors (NZIBI).

- Any further items highlighted by another full inspection of the dwellings exteriors and roofs carried out by [the architect] – correspondence dated 23 November 2012 attached.
- Any other additional items [the authority] deemed necessary upon the document being tabled and prior to acceptance as the "working document"

The acceptance of this as the "Working Document" recorded all items requiring remedial action. These now completed I seek the issue of the Code of Completion [sic] certificates …

2.37. On 9 March 2015, the authority refused to issue code compliance certificates for the nine 2005 building consents for the remediation work under section 95A of the Act. The single letter addressed the nine townhouses.

2.38. The authority noted that one of the units had recently been viewed by the authority as a result of concerns raised about the 'presence of historic non-remediated timber framing' (refer to paragraph 2.34). During that visit, the authority viewed 'blackened water-stained timber' related to historic weathertightness failures. As a result of that visit, the authority was 'not satisfied that the timber framing was correctly remediated during the reclad process' and therefore had concerns regarding the remainder of the development and 'the extent and compliance of the timber remediation related to those buildings.'

2.39. The authority concluded that it was:

> ... not satisfied on reasonable grounds that the timber framing as remediated and as related to the above buildings and building consents complies with Clauses B1 and B2 of the New Zealand Building Code 1992. As we are not satisfied that the remediated framing complies with Clauses B1 and B2 we formally refuse to issue code compliance certificates with respect to the above buildings and building consent numbers pursuant to Section 95A Building Act 2004.

2.40. On 19 June 2015, the authority wrote to the individual owners of the nine remaining townhouses, explaining the basis on which it had made the above decision and reiterating its concerns about the remaining damaged timber framing.

2.41. Correspondence between the parties continued throughout 2015 and 2016. The authority continued to maintain its position as outlined in its 2015 refusals to issue code compliance certificates.

2.42. In a meeting between the authority and representatives of the townhouse owners on 13 October 2016, the authority noted the following (in summary):

2.42.1. On present information the authority cannot and is not prepared to issue code compliance certificates for the remaining units, for reasons set out in previous communications.

2.42.2. The authority was entitled to rely on the architect to manage inspection and supervision of the remediation work, with various producer statements and warranties expected during the repair process.

2.42.3. The authority tabled a set of photographs showing timber damage and defects uncovered during work on the unit referred to in paragraph 2.34, which cast doubt on the framing condition in the other units. In the light of current knowledge, the authority therefore cannot issue code compliance certificates for the remaining townhouses without further evidence.

2.43. The authority engaged a weathertightness surveyor to advise on technical issues, and proposed the following way forward to 'expedite the matter' by requiring 'reasonable access to inspect' and investigate the compliance of the building work:

2.43.1. The authority and weathertightness surveyor would visit the development for 'a visual non-invasive inspection of the units'. The surveyor would recommend further invasive testing in specified locations to be carried out in stages, one townhouse at a time. Where cladding cut-outs were needed, temporary weatherproof patches would be applied after the investigation was complete, and the authority would carry the costs for the above investigations.

2.43.2. Taking the additional evidence of the unit referred to in paragraph 3.2.3 ("the recently reclad unit") into account, compliance would be reassessed.

2.44. The authority concluded:

> Neither [the authority] nor [the weathertightness surveyor] are obliged to or can commit to setting out an exhaustive checklist setting out what needs to be done to achieve compliance with the code. The onus remains on the parties carrying out the building work to satisfy [the authority] that the building work complies with the Building Consent and the [Building Code].

The application for determination

2.45. The Ministry received an application for determination for Townhouse 12 from the architect on 12 December 2018.

2.46. Following correspondence from the Ministry, which proposed a limited invasive investigation and/or testing carried out by an independent expert, the owners of Townhouse 12 agreed that an invasive inspection was 'the best course of action as long as it is only done from the inside of the property'. The owners were of the view that any cladding problem would 'show on the wood on the inside'.

3. The submissions and draft determination

The architect

3.1. The architect set out the contractor's, applicants' and their own view of the matter, submitting (in summary):

3.1.1. The 2004 agreement included recladding the exterior walls with a 'battened cavity system' and installing overflows to gutters. It did not include common internal tenancy walls, internal gutters, or 'roof cladding and accessories etc.'

3.1.2. Once the consent documentation is approved, the authority must 'administer the works' in accordance with the approved consent documents. The authority did not carry out inspections called for in the consent and had 'continually tried to introduce new issues, requirements to their benefit' not included in the consent documentation.

3.1.3. The 'modernisation' of the recently reclad unit in 2016 had 'nothing to do with the original approved' remediation consent but had been 'the big issue' since then.

3.1.4. Owners have raised no 'watertight' issues since 2005, despite the lack of maintenance. Maintenance is now becoming urgent, but the owners are unwilling to proceed 'for fear of compromising any liability' regarding the 2004 agreement.

3.1.5. The internal gutter linings need maintenance and are well beyond their original 10-year guarantee.

3.1.6. The 'non-specific generic correspondence to each owner in lieu of a 'Notice to Fix' or 'Scope of Inspection Sheet' policy has been the root of the ongoing problems, regarding [completion of code compliance certificates]'.

The authority

3.2. The authority submitted (in summary):

3.2.1. Information that the original framing was not remediated casts doubts on code compliance with clauses B1, B2 and E2 – resulting in a lack of reasonable grounds to issue a code compliance certificate.

3.2.2. Assertions that remediation work is compliant and 'all weathertightness issues rectified' is not supported by evidence, with work to the recently reclad unit indicating that timber remediation was not adequately

undertaken or supervised. Given the evidence from the recently reclad unit, such as 'visibly damaged timbers left in situ and new gib board affixed to rotten timber', the authority cannot be satisfied that adequate remediation of the original framing was carried out.

3.2.3. If an authority refuses to issue a code compliance certificate, section 95A requires that the applicant be given written notice of the refusal and to provide the reasons for that refusal. The refusal to issue a code compliance certificate on 6 March 2015 complied with section 95A, with the evidence of damaged timber in the recently reclad unit given as the reason the authority was not satisfied about the compliance of remaining units. The failure to replace 'visibly decayed framing' is relevant as 'direct evidence of a failure' of the architect and contractors 'to supervise and undertake the [remediation] work in accordance with the building code'.

3.2.4. A notice to fix is not necessarily 'an expected sequential step' following a refusal to issue a code compliance certificate – a notice to fix would be considered if work was not carried out in response to a site notice and/or a final inspection.

The first draft determination and responses received

3.3. A draft determination for Townhouse 12 was issued to the parties for comment on 31 March 2020. The draft determination concluded the remediation work complied with clauses B2 *Durability* and E2 *External moisture*. The authority's decision to refuse to issue a code compliance certificate was reversed, requiring the authority to make a new decision taking into account the findings of this determination. The draft determination originally considered the compliance of the timber framing with section 112 of the Building Act 2004[17], rather than section 38 of the Building Act 1991.[18] However, the draft did not explicitly consider the compliance of the replacement timber framing with regard to the scope of the building work that had been consented.

3.4. The applicants accepted the draft determination via a response from the architect:

3.4.1. They provided commentary on the expert's report, the process carried out by the authority, previous determinations and summarised their view of the facts.

[17] Section 112(1) states that a building consent authority must not grant a building consent for the alteration of an existing building, or part of an existing building, unless the building consent authority is satisfied that, after the alteration,— ... (b) the building will – (i) if it complied with the other provisions of the building code immediately before the building work began, continue to comply with those provisions; or (ii) if it did not comply with the other provisions of the building code immediately before the building work began, continue to comply at least to the same extent as it did then comply.

[18] References to section 112 in submissions from the parties have been considered as being in respect of section 38 of the Building Act 1991.

3.4.2. They agreed that the building envelope currently complies with clause E2 of the Building Code, based on there being only minor historic microscopic water damage to some existing timber profiles, the external envelope has not leaked since 2005, and the building is structurally sound.

3.5. The authority advised it did not accept the draft determination. The authority's position is that the building work has not been completed in accordance with the building consent and Building Code, and that based on the information available and the expert's findings, the decision to refuse to issue a code compliance certificate should be confirmed. The authority submitted that:

3.5.1. Given the determination makes a decision about the compliance of the remediation work based on the report of the expert, which was not available to the authority at the time of its decision, the matter to be determined should be whether the authority's decision to refuse to issue the code compliance certificate is to be confirmed, reversed or modified, rather than whether the authority correctly exercised its powers.

3.5.2. While the authority did not carry out inspections, the building consent required full supervision by the architect. The authority was to consider the information provided by the architect in deciding whether to issue a code compliance certificate.

3.5.3. The expert does not confirm the weathertightness performance of the property and compliance with clause E2, but rather advises that further investigation is required. Investigation must include invasive and destructive testing from the interior and exterior. If the applicant is not willing to permit further investigation, the authority's decision to refuse to issue the code compliance certificate should be upheld.

3.5.4. The building consent required the replacement of decayed framing, and there is a lack of records regarding the assessment, removal and replacement of the timber.

3.5.5. The remediation work must comply with the Building Code, and this includes not only the replacement of the external cladding but also the remediation of the underlying framing. The remediation of the property did not merely present an opportunity for remediation of the underlying framing; rather, the damaged framing needed to be removed and replaced in compliance with the Building Code as part of the consented works.

3.5.6. The determination only considers Building Code clauses E2 and B2 (with respect to clause E2), and it overlooks that timber framing must comply with the 50-year durability requirements pursuant to clause B2.

3.5.7. As set out in *Wheeldon v Body Corporate 342525*[19] ("*Wheeldon*"), section 112 is not a mandate for allowing damaged timber to be left in situ, and it cannot detract from the requirement for the remediation work, which included replacement of damaged framing, to be carried out in accordance with the Building Code.

3.5.8. Applying section 112 in this way is inappropriate, as it cannot be acceptable to leave decayed framing in situ, as the framing is the very defective element requiring replacement. The purpose of remediation work is to repair the damaged elements in compliance with the Building Code, not simply ensure that the remediation does not make the existing non-compliant elements worse. A finding that it was acceptable to leave decayed timber in situ would also be in direct contradiction of guidance provided to the building industry regarding good remediation practice.

3.5.9. Determination 2015/025[20] is not applicable to this case, as it is factually different. In Determination 2015/025, there was no information to indicate issues with the framing, and the approved work did not include replacement of damaged framing. In this case, the need to replace the framing due to water ingress and damage in breach of the Building Code was known and set out in the WHRS report and the 2004 agreement.

The second draft determination and responses received

3.6. A second draft of this determination was issued to the parties on 6 December 2021. The second draft concluded the remediation work complied with clauses B2 *Durability* and E2 *External moisture*. The determination also concluded the timber remediation work was not included in the scope of the building consent. The authority's decision to refuse to issue a code compliance certificate was reversed, requiring the authority to make a new decision taking into account the findings of the determination.

3.7. The authority provided a submission in response (in summary):

3.7.1. There is insufficient information to conclude the building work complies with the Building Code. The caveats and limited investigation do not confirm the weathertightness performance of the remediation work. The expert's report has limitations due to investigation from the interior and is not sufficient to establish compliance. Further information is also required including investigation of critical junctions.

3.7.2. There is an outstanding question regarding how the fixing of a cladding system onto decayed timber framing affects compliance.

[19] *Wheeldon v Body Corporate 342525* [2015, NZHC 884].
[20] Determination 2015/025: Regarding conditions on a building consent for the recladding of a house. Issued 29 May 2015.

3.7.3. There are outstanding or incomplete findings from the expert's report – cladding differences are noted as "not ideal"; decay under rainwater heads; high-risk nature of original cladding system; suspected further decay; and potential for failure around joinery units (including critical flashing junctions), which were not able to be fully inspected.

Building consent scope

3.7.4. The consent was issued following the WHRS proceedings. Therefore, the consent documents reflect the scope of work as set out in the WHRS report.

3.7.5. The work to framing was an integral part of building work consistent with the understanding recorded in the settlement, which was that timber would be replaced as "need be".

3.7.6. The consented plans referred to moisture damage on the interior, which shows the scope was not limited to exterior work.

3.7.7. Correspondence between the architect and the authority stated the building consent was to be specific regarding the settlement, which was to be supervised by the architect.

3.7.8. The application for the code compliance certificate referred to confirmation of compliance of building work "as per the undated agreement 2004". The inference being the work to replace timber framing was completed under the building consent.

3.7.9. The determination cannot infer the absence of a specification for a systemic process for timber remediation as meaning the remediation was not part of the building consent.

3.7.10. Any lack of recording evidence of the timber remediation was an omission by the architect and not an indication it was not part of the building consent.

3.7.11. The timber remediation work should have been explicitly excluded from the code compliance certificate application if that work was not intended to form part of the consent for which the code compliance certificate was being sought.

Timber framing

3.7.12. The timber analysis confirms there is decaying timber and the presence of mould. The biodeterioration report warned against reliance on moisture content reading in isolation, as the elevation is transitory. The replacement timber framing has been placed adjacent to decayed timber framing.

3.7.13. The authority does not believe an indication from the expert that performance of the timber framing is "likely adequate" is enough to base a decision on.

3.7.14. Determination 2015/025[21] does not support finding that underlying framing does not require replacement.

3.7.15. This determination would set an approach that would allow for the reclad of leaky buildings to not replace damaged timber, and this is inconsistent with the consent documents and the architect's position that framing was inspected. Given the finding that timber replacement has been undertaken, for that work to not be part of the consent would be an "unusual finding" and raises questions regarding legality of carrying out work that required building consent.

3.8. The architect provided a submission, largely responding to points made by the authority and commenting on conclusions drawn from the decay analysis. I have incorporated that submission in paragraph 4.21.

4. Expert's report

General

4.1. The Ministry engaged an independent expert to assess Townhouse 12. The expert is a member of the New Zealand Institute of Building Surveyors. The expert inspected the unit on 21 October 2019; providing a report on 13 November 2019 which was forwarded to the parties on the same day.

4.2. The expert noted that 'invasive investigation was only possible from the interior as the applicant did not provide permission for either invasive or destructive testing from the exterior'. The 'need to remove sections of plasterboard' was agreed with the owner/applicant prior to the assessment, while the choice of locations and extent of investigation was determined solely by the expert.

4.3. The expert noted that 'the layout and overall design features of [Townhouse] 12 have predominantly remained consistent' with the original drawings and the 2004 consent drawings (see Figure 1). However, the location of the upper deck has changed and the deck/wall connection detail for the upper deck was also changed to a fixing method that 'reduces the likelihood of moisture entering the cladding or a bridge being formed across the cavity'.

4.4. The expert concurred with the architect's weathertightness risk assessment of the building, noting the score in the consent drawings was a maximum of 20, which

[21] Determination 2015/025: Regarding conditions on a building consent for the recladding of a house. Issued 29 May 2015.

would not call for specific re-design.[22] The current exterior envelope is 'dimensionally similar in nature to the original construction, with many of the same junctions' although 'additional multi-sectional and lapped flashings/cap flashings/saddle flashings have been installed at these critical intersections'.

4.5. In regard to construction quality, the expert considered that remediation work 'appears to mitigate potential failure at critical weathertightness junctions and provides a drained and ventilated cavity behind the exterior walls'. The expert also noted there appeared to be no 'lack of maintenance' of the exterior.

4.6. In regard to the current exterior envelope, the expert noted:

4.6.1. The 20mm cavity battens are polystyrene as opposed to more perishable timber, with the cavity unobstructed at the base.

4.6.2. At upper wall and roof overhangs, continuous drainage/vermin strips are visible at the base of the cavity, suggesting correct drainage and venting.

4.6.3. Perimeter channel drains address cladding clearances, although ground levels are almost level with or above the base of the cladding in many areas.

4.6.4. Roof and parapet cap flashings overlap in a 'shingle-effect' to prevent moisture draining behind the cladding and into the cavity.

4.6.5. Windows include proprietary uPVC sill flashings in accordance with the manufacturer's instructions, with flashing tape observed at window cut-outs.

Moisture investigations

4.7. Linings were removed under the expert's instruction at the locations shown in Figure 2 (page 4), and then reinstated by the applicants on the same day.

4.8. The expert carried out an initial visual inspection to select appropriate at-risk areas to use as samples for investigation – considering the record of historic leaks. The following areas were assessed:

4.8.1. Two locations beneath ends of internal gutter (Areas A and B2)

4.8.2. Four locations beneath parapet walls and junctions (Areas A, B2, C and F)

4.8.3. Three locations around deck to wall junctions (Areas B1, B2 and B3)

4.8.4. Four locations beneath window jamb to sill junctions (Areas B3, C, D and F)

4.8.5. Three locations adjacent to channel drains (Areas A, B3 and E)

[22] If using *Acceptable Solution E2/AS1 External moisture* to establish compliance with the Building Code.

4.8.6. One location beneath Townhouse 14 pergola fixings (Area A).

4.9. Cut-outs were made and invasive moisture readings into framing ranged from 9 percent to 17 percent. The locations were investigated, with timber samples taken where moisture staining was observed (sample reference numbers shown in brackets):

4.9.1. Area A: Party wall to Townhouse 12 and 14, directly below rainwater outlet to internal gutter (Samples 2a and 2b).

4.9.2. Area B: Above and below upper west deck/wall junction

(a) B1: Bottom plate at bedroom 2 window/door junction (Sample 5)

(b) B2: Bottom plate at parapet and west end of internal gutter (Sample 1)

(c) B3: Framing at deck/wall junction – below upper deck doors (Sample 8).

4.9.3. Area C: Framing below upper west window (Sample 3).

4.9.4. Area D: Framing below master bedroom north window (no sample taken).

4.9.5. Area E: Bottom plate to garage north side door (Sample 6).

4.9.6. Area F: Framing below master bedroom east window (no sample taken).

4.10. The expert observed the following (see Figure 2):

4.10.1. <u>At the party wall (Area A):</u>

(a) standard and fire-resistant plasterboard cut out from unit 12 side

(b) water stained framing to the unit 14 side, with evidence of moisture tracking down stud into bottom plate where fixings severely corroded

(c) Samples 2a and 2b extracted from stud and bottom plate

(d) no evidence of moisture damage to back of unit 14 linings despite extensive staining and decay to framing

(e) historic water marks to back of lining and metal batten on unit 12 side indicates damage is likely to be historic

(f) 17 percent moisture reading indicated no recent water penetration.

4.10.2. <u>At the west deck/wall junction (Area B):</u>

(a) 9 percent moisture reading and no sign of damage to upper bottom plate below the internal gutter/parapet wall junction (Area B1 – Sample 1)

(b) 12 percent moisture reading but obvious decay to outer face of framing below junction despite undamaged building wrap (Area B2 – Sample 8)

(c) 14 percent to 16 percent moisture readings and no sign of damage to lower bottom plate at door/window junction (Area B3 – Sample 5).

4.10.3. At the upper west window (Area C):

(a) visible replacement framing, indicating that some decay was identified and framing replaced during remediation work

(b) original jack stud stamped with 'H1 97'

(c) unable to see outer face of facing from inside, but no visible indication of moisture-stained wrap or framing (Sample 3)

(d) 14 percent moisture reading indicates no recent water penetration.

4.10.4. At the upper north window (Area D):

(a) no moisture staining to wrap or framing

(b) no visible evidence of moisture ingress or decay damage

(c) no timber sampling considered necessary

(d) window is below roof eaves and not in parapet wall

(e) 13 percent moisture reading indicates no recent water penetration.

4.10.5. At the lower north garage side door (Area E):

(a) no visible indication of moisture-stained wrap or framing

(b) Sample 6 extracted from bottom plate

(c) 15 percent moisture reading indicates no recent water penetration

4.10.6. At the upper east window (Area F):

(a) no visible evidence of moisture ingress or decay damage

(b) no timber sampling considered necessary

(c) 13 percent moisture reading indicates no recent water penetration.

4.11. The expert noted that the apparent lack of recent clause E2 failures since the remediation work indicates most 'original sources of moisture ingress appear to have been rectified'.

Decay analysis

4.12. The expert forwarded the above timber samples to a biodeterioration consultant for analysis. The laboratory report, dated 22 October 2019, included the following (in summary):

4.12.1. Sample 1: identified as untreated Douglas-fir, contained fungal growths including typically highly prolific and recently active fungi, but no structurally significant decay was detected.

4.12.2. Samples 2a and 2b: Pockets of advanced soft rot across the depth. Low numbers of spores of Stachybotrys

(a) Sample 2a: boron-treated to Hazard Class 1[23]

(b) Sample 2b: either untreated perishable radiata pine or may have lost boron due to leaching from past moisture penetration.

4.12.3. Sample 3: boron-treated to Hazard Class 1. Traces of superficial soft rot in outer 1mm and dense fungal growths, but no structurally significant decay.

4.12.4. Sample 5: boron-treated to Hazard Class 1. Dense fungal growths, but no structurally significant decay.

4.12.5. Sample 6: boron-treated to Hazard Class 1. Traces of yeasts.

4.12.6. Sample 8: boron-treated to Hazard Class 1. Pockets of advanced soft rot across depth. Growths of Stachybotrys on building paper with advanced soft rot.

4.13. For Samples 2a, 2b and 8, the advanced decay is:

> ... of a type that often occurs well beyond the sample and which had probably caused significant loss of the original structural integrity in affected areas. Replacement is typically recommended for framing in this condition, as part of robust remediation practice, and this is likely to be required in this instance.

4.14. For the remaining Samples 1, 3, 5 and 6, the report warned that 'at least some of samples 1, 3, 5 and 6 had been exposed to conditions conducive to decay'. The dense fungal growth is:

[23] Hazard classes as per MP3640:1992.

> ...typically highly prolific and including recently active fungi, but no structurally significant decay was detected (sample 3 contained superficial soft rot decay which in the preservative treated framing types identified is unlikely to pose a structural damage issue at the location sampled).

4.15. The expert noted:

> This assessment has confirmed the presence of timber decay damage in localised areas of the building, however, this is in the absence of any clear evidence of recent moisture ingress, indicating that the locations of timber decay are likely to be associated with historic moisture ingress, particularly as the building underwent remedial recladding during 2005 and the current cladding is over a cavity, with many of the apparent higher risk weathertightness junctions now incorporating suitably detailed flashings.

4.15.1. Decay in the original timber confirmed that structurally significant damage occurred 'within under half of the expected durability requirement' of 50 years, so the original timber framing did not comply with durability requirements (Areas A and B3).

4.15.2. Remediation of decay-damaged original framing 'will now almost certainly require areas of the current exterior cladding to be replaced' (Areas A and B3).

4.15.3. The only way to fully investigate some areas is from the exterior, but limits of invasive testing for investigation prevented full assessment:

- of the party wall directly below the internal gutter and rainwater head
- below some other roof to wall junctions
- at base of cladding to east garage wall.

4.15.4. Interior testing also does not expose the outer face of timber/structural substrates, where 'moisture ingress and damage may accumulate' so it is possible that additional areas of decay could be present elsewhere.

East rainwater head (Area A)

4.16. Regarding the east end of the internal gutter between Townhouses 12 and 14, the expert noted (in summary):

4.16.1. Despite heavy rain prior to investigation, moisture readings were low – indicating that decay could have resulted from historic leaks associated with the original construction, as opposed to more recent moisture entry.

4.16.2. Linings to Townhouse 12 side may be original as visible mould growths differ from Townhouse 14 side, which is clear from mould staining – indicating that the latter linings were likely added during the remediation works.

4.16.3. The lack of mould staining to the Townhouse 14 linings indicates recent moisture ingress has not been penetrating this wall void.

4.16.4. Photos of the recladding of the recently reclad unit indicate:

(a) decayed framing left in situ during the remediation works

(b) evidence of pre-2005 damage centred on internal gutter and party wall line (especially east rainhead, consistent with Townhouse 12's findings).

4.17. However, the expert also noted other possibilities for the historic damage observed:

4.17.1. The upper floor shower above the location could be potential cause or contributory factor in historic decay.

4.17.2. There may have been inadequate cladding clearances prior to 2005 with capillary action of moisture contributing to bottom plate decay. A channel drain was installed at wall base during the remediation work.

West deck/wall junctions (Area B)

4.18. Regarding the current deck detailing, the expert noted (in summary):

4.18.1. Decks replaced during the remediation work were installed as per industry practice at time of construction, with:

(a) bolted connections to deck stringer, with washers to ensure stringer spaced off cladding by at least 12mm

(b) Townhouse 12 deck includes a gap that allows efficient drainage and run-off of water.

4.18.2. Upper doors include side windows, with complex door jamb/windowsill junctions (although risks mitigated by drained cavity beneath window).

4.18.3. Despite heavy rain prior to investigation, low moisture readings suggest satisfactory performance of deck fixings and door junctions.

4.18.4. Although most exposed framing showed no visible evidence of decay, one area of dark timber in framing below the deck (also below sill/jamb of upper deck doors) was confirmed as advanced decay (Area B3 – Sample 8).

4.18.5. Low moisture readings and lack of stains to 2005 building wrap suggest:

(a) decay damage likely to be from historic moisture ingress, where framing was left in situ during the remediation works

(b) historic decay likely to have resulted from either the inadequate deck junctions and/or upper door joinery.

Joinery openings (Areas D, E and F)

4.19. Regarding doors and windows, the expert noted:

4.19.1. Joinery is recessed by the thickness of the EIFS cladding, with uPVC sill flashings visible above the sill plaster in accordance with manufacturer's instructions.

4.19.2. Plant-on polystyrene sills and borders increase depth of recesses.

4.19.3. Flashing tape observed around the joinery openings.

4.20. The expert also noted (in summary):

4.20.1. The original EIFS system was direct-fixed to framing without drainage, which would have had increased risks of moisture penetration at joinery junctions.

4.20.2. There were low moisture readings near the outer face of framing, with no initial sign of decay but evidence of replacement framing installed during the remediation work.

4.20.3. There was early decay detected in a sample taken from original retained framing. Although not structurally significant, this 'raises some uncertainty as to the potential for other areas of similar or more advanced decay damage in these areas adjoining joinery openings, which cannot be fully inspected'.

The responses to the expert's report

4.21. The architect responded to the expert's report, commenting (in summary):

4.21.1. Given the lack of moisture ingress since the remediation work, decay damage in localised areas indicates that these locations are likely to be associated with historic moisture ingress prior to 2005. The remediation work incorporated cavities and appropriate flashings to higher risk junctions. Since then, Townhouse 12 has been made waterproof and supported by a cavity, with low moisture levels preventing contamination. The new EIFS cladding is now at the end of its required durability period.

4.21.2. Step-downs between interior first floor slab level and adjacent ground levels were never proved to be an issue at the time of the remediation work due to the soil make up being sand.

4.21.3. Townhouses 8, 16 and 20 had the same remediation work carried out in 2005 and were issued with code compliance certificates in 2006 and 2008 respectively, showing the authority considered the framing durable.

4.21.4. The expert is saying that elements of the external structure of Townhouse 12 will fail before 50 years from original construction, despite the 2005 remediation. The insurance industry states and accepts that the structural integrity of the timber stud is not compromised if 80 percent of the profile is available, so much of the expert's reasoning is not rational.

4.21.5. The laboratory report is not clear on the relative extent of decay in the small samples and proof is needed as it is likely that 'findings are minute and a far less figure from the samples removed and my inspection'. The report states that given the building's age, decay damage compromising the structural integrity of the timber framing has therefore occurred within half the expected 'durability' required.

4.21.6. A more rational conclusion would be:

> ...the original weather tightness issues were stabilised and eliminated with the completion of the [remediation] work to the dwelling. That is within the first 9 years of the 50 years minimum performance. Following the [remediation] work the next 14 years of the dwelling life span has been in a stable situation, no water or moisture ingress and has brought the dwelling back into line with an expected 50 years minimum life span performance.

4.21.7. Visual inspection revealed very little sign of timber damage, so interpretation of results is very important and 'microscopic traces found on the 25-100 micron timber slides have to be practically interpreted into reality'. Does this really affect long term timber integrity enough to warrant replacement (with all the consequential damage), knowing the remediation work has successfully stabilised the building for the past 14 years?

4.21.8. There was no guide available in 2005 for timber replacement, and it was very difficult to identify low level contamination with the naked eye.

4.21.9. No 'brown rot' was identified under the microscope, and there is no evidence of any moisture source within the structure to support contamination since 2005 – spores cannot survive on treated timber without moisture (spores found were airborne and now dead). What is reported under microscopic conditions does not prove the lack of structural integrity – it is not brown rot.

4.21.10. Minutely contaminated timber that is no longer located in a moisture hazard situation could be left in place should the consequential damage (in this case extensive) exceed the benefits of replacement.

4.22. On 26 November 2019, the authority responded to the expert's report and architect's comments, noting (in summary):

4.22.1. Although it had 'no substantive comment to make of the content of the report', the investigation was based on limited interior invasive/destructive testing which excluded critical junctions that would need exterior destructive testing; without this, determining compliance with clause E2 is not possible.

4.22.2. Some of the architect's comments on the laboratory report are outside his expertise and contrary to the evidence in the laboratory report. There is no evidence to support the architect's claims that: 'neither soft rot nor Stachybotrys break down treated timber and the spores are in fact dead' and timbers are not structurally compromised.

4.22.3. The laboratory report describes 'advanced decay' with 'significant loss of structural integrity' in three samples with 'recent fungal growth' in others.

4.22.4. The expert's conclusion that further invasive and destructive testing from both the exterior and interior is required accords with the authority's view.

5. Discussion

General

5.1. This determination concerns the authority's decision to refuse to issue a code compliance certificate for the remediation work to Townhouse 12.

5.2. Building consent No. ABA 50637 was issued under the former Act[24], and accordingly, the transitional provisions of the current Act apply when considering the issue of a code compliance certificate. The transitional provision in section 436 of the current Act provides that an application for a code compliance certificate "must be considered as if [the current Act] has not been passed". Subsection (3)(b)(i) provides that a code compliance certificate "may be issued only if the territorial authority is satisfied that the building work concerned complies with the building code that applied at the time the building consent was granted".

5.3. A code compliance certificate was issued for the original construction of Townhouse 12; therefore, the remediation work is an alteration to an existing building. In granting the building consent for the remedial work, section 38(b) of the former Act applied:

[24] The Building Act 1991.

> **38 Alterations to existing buildings**
> No building consent shall be granted for the alteration of an existing building unless the territorial authority is satisfied that after the alteration the building will—
> …
> (b) Continue to comply with the other provisions of the building code to at least the same extent as before the alteration.

5.4. In short, for a code compliance certificate to be issued, the remedial work is required to comply with the Building Code that was in force at the time the consent was issued. Also, the building as a whole, after the remedial work was carried out, was required remain compliant to at least the same extent as it did before the alteration. I have set out the relevant Building Code clauses in Appendix A3.

5.5. The authority has submitted that the work covered by the building consent included the replacement of timber framing. It maintains that because not all of the timber framing affected by moisture ingress was replaced, it was correct to refuse to issue the code compliance certificate. The authority has submitted that the remedial work does not comply, and also that replacement of the timber framing was required in order for remedial work to achieve compliance. Therefore, before considering the compliance of the building work, I must consider the scope of the remediation work that was carried out under that consent and whether the damaged original timber framing was required to be replaced for the purpose of granting the building consent.

The building consent

The scope of the building consent

5.6. Based on photographs taken during the remediation works and subsequent investigations, work was carried out to replace some of the original framing. I accept that the inclusion of the timber remediation in the consent is contested by the parties and the evidence on this matter is not clear. However, I have formed the view that the replacement of the original timber framing is outside the scope of the building consent that was applied for. I provide my reasons for coming to this conclusion below.

5.7. Work required to repair Townhouse 12 was listed in the WHRS report and included the removal of all decayed timber framing and replacement with new treated timber. The 2004 agreement referred to the replacement of framing 'as need be'.

5.8. The work to remove and replace the decayed timber framing is building work that required a building consent. However, the building consent documents do not reflect the scope of work set out in the WHRS report with regard to the replacement of timber framing. The report was not supplied as part of or referenced in the building consent documentation, nor was a proposal to replace timber framing reflected in the details. Without submitting the WHRS report as part

of the building consent application or including the relevant details within the drawings and specifications, there is no connection from the scope described in the report to the scope of work for which approval was sought in the building consent application.

5.9. Clearly the extent to which the original timber framing would require replacement would not have been known at the time the building consent was lodged – that fact is reflected in the wording "as need be" used in the WHRS report and agreement. With regard to the extent of work being unknown, the approved documents do not specify a process for inspecting, recording, decay testing, or replacing damaged timber within the original timber structure.

5.10. In addition, there is no evidence of a process being followed during the remediation work to confirm the condition of the original timber framing, and the extent of timber replacement undertaken was not documented. No amendment to the building consent was sought once the framing was uncovered, the extent of timber damage became known and decisions were made about replacement.[25] There is a lack of records and so it is not clear how much of the original building wrap and linings were removed to allow assessment of the original underlying framing and how much was replaced.

5.11. In my opinion, the nature and scope of the building work authorised under building consent No. 50637 was to remediate the building envelope to achieve compliance with clause E2 and did not extend to remediating the timber framing. The work detailed in the building consent application, as described in paragraph 2.14, involved replacement of the cladding and high-risk features of the building's external envelope to address the weathertightness performance.

5.12. The authority has submitted that references in the drawings to damaged plasterboard support the view that the extent of work authorised in the building consent was greater than simply replacement of the external cladding.

5.13. I acknowledge the approved plans refer to moisture damage on the interior. The plans only included notation referring to moisture damage in some areas, and to check its extent; there were no details regarding what was to be done to rectify any internal moisture damage. I do not consider that those notations support the authority's views on the extent of the work covered under the building consent as including replacement of timber framing. Further, I note that interior work, such as replacement of plasterboard linings, may have been carried out under Schedule 3 of the former Act as exempt building work provided it met the relevant criteria.

Remediation of original timber framing

5.14. The authority submitted its view that:

[25] Section 33(4) of the Building Act 1991 provides that an application for an amendment to a building consent shall be made in the same manner as the original application.

- The Building Code required any decayed framing to be replaced.[26]
- *Wheeldon* supports the authority's view that "it cannot be acceptable to leave decayed framing in situ, as the framing is the very defective element requiring replacement. The purpose of remediation work is to repair the damaged elements in compliance with the building code, not simply ensure that the remediation does not make the existing non-compliant elements worse".[27]
- Compliance of the cladding system may not be achieved due to fixing to damaged framing.[28]

5.15. As noted in paragraph 1.9, whether replacement of original timber framing was a requirement under the 2004 agreement is not a matter for consideration in this determination. In respect of the authority's refusal to issue a code compliance certificate, I must consider the provisions of the Act as they apply to the remedial work carried out under building consent No ABA50637. Regardless of the intention of the 2004 agreement, I have concluded that replacement of timber framing did not form part of that building consent.

5.16. The authority has submitted that the building's framing must comply with the Building Code – ie as part of the remediation work, there was an obligation under the Building Code to remediate the damage to the structure. I note the original framing is building work undertaken during the original construction and for which a code compliance certificate had already been issued.

5.17. The requirements of the Building Code apply only to "building work", rather than "buildings" – meaning the obligation is that any new work must comply.[29] It is for the owner to decide on the nature and extent of work they wish to undertake; the Building Code does not require decayed framing to be replaced unless that framing must be replaced to ensure the new building work will comply with the Building Code.[30]

5.18. This was considered in Determination 2015/025[31], which involved the proposed remediation of an existing building where an authority had concerns about the underlying structure. The authority had issued a building consent subject to requirements relating to the assessment and remediation of the underlying structure. While the facts of that case differ regarding knowledge of the state of the underlying structure, I am of the view that it is relevant in terms of how the

[26] See paragraphs 3.2.1 and 3.2.2.
[27] See paragraph 3.5.7.
[28] See paragraph 3.7.2.
[29] Refer to section 7 of the former Act and section 17 of the current Act.
[30] I note that under section 124, building work to an existing building may be required if it has become dangerous or insanitary.
[31] Determination 2015/025: Regarding conditions on a building consent for the recladding of a house. Issued 29 May 2015.

provisions concerning alterations of buildings under both the former and current Building Act apply.

5.19. The building work considered in Determination 2015/025 was an alteration being carried out under the current Act and therefore subject to section 112. The determination stated (at paragraph 5.3.1):

> In this case the consent condition relates to the possibility of the underlying substrate or timber framing requiring remediation. I note here that as the building work is an alteration, under section 112 remediation of the existing building elements cannot be required unless under particular circumstances. Those circumstances would be if the damage to the underlying structure is such that the new building work would not comply with the requirements of the Building Code or the damage is such that the building has become dangerous or insanitary as defined in the Act. However if there has been moisture ingress I suggest it would be prudent to address any effects of that moisture ingress on the existing building elements and that the recladding work presents an opportunity do so.

5.20. One of the circumstances which requires remediation and replacement of timber framing, is where damage to the underlying structure is such that new building work (such as the installation of new cladding) would not comply with the requirements of the Building Code, unless the stability and durability of the underlying structure is addressed. I have considered this in my assessment of compliance of the building work (refer to paragraph 5.37).

5.21. Another circumstance that will require underlying structural damage to be remediated is if a building meets the test for being dangerous or insanitary under the Act.[32] In this case, the biodeterioration consultant identified structurally significant decay in three small timber samples and fungal growths in three other samples. I do not consider this indicative that the building meets the test of being dangerous or insanitary at this time.

5.22. I also note that there is no obligation on a building owner to carry out all the building work described in a building consent. A building consent is an authorisation to carry out building work, rather than a requirement to carry out building work. An owner may choose to stage building work or may decide not to carry out all of the building work described in a building consent.

5.23. Under the former Act, if not all of the consented work is carried out, a code compliance certificate would be issued for building work that was carried out, provided the work was carried out in accordance with the Building Code.[33]

[32] Sections 121 and 123 respectively.

[33] For building consents issued under the current Act, an amendment to the building consent would be required to remove work from the building consent that was not carried out before a code compliance certificate could be issued.

5.24. I also do not agree with the authority's interpretation of the Court's comments in *Wheeldon*. The relevant paragraphs in *Wheeldon* concerning the requirements that relate to alterations (under the current Act) are:

> [160] … Section 112 does not detract from the s 17 Building Act requirement that *all* building work must comply with the Building Code (or the ss 67-70 provisions relating to waivers or modifications which are not, on the evidence, engaged in this case). Building Law in New Zealand summarises the position as follows:
>
> In other words:
>
> - Any new work must comply completely with the Building Code subject to any waiver or modification granted by the territorial authority (for example, if a shower compartment made of ordinary glass is being replaced, then the replacement must be made of safety glass as required to comply with the Building Code); and
> - After the alteration, the whole building must comply with the Building Code to the extent specified by s 112.
>
> [161] The "extent specified" is that the building will "continue to comply at least to the same extent as it did then comply" but that is a reference to the building as a whole. It is not a mandate for a repair or replacement of the particular element which has failed in accordance with some historical and now superseded Code requirement.

5.25. I consider that *Wheeldon* is authority for the conclusion that building work must comply with the Building Code and an existing building must continue to comply to the same extent (if it did not comply) as before the alterations. While the provision considered in *Wheeldon* is section 112 of the current Act, I am of the view the same approach applies to section 38 of the former Act. In general terms, the provisions for alterations of existing buildings (under both Acts) do not permit a lesser standard of compliance for building work, as any building work must comply with the Building Code. Rather, the provisions concern the effect of building work on the remainder of a building that has not been subject to building work. That remainder of the building must continue to comply to the same extent as it did before the alterations were made to the building.

5.26. In conclusion, I am of the view the scope of the building consent did not include the replacement of original timber framing; the Building Code did not require the damaged timber framing to be replaced; and, while it may be prudent to replace damaged structural elements when installing new cladding, this is not a requirement under section 38 of the former Act (nor section 112 of the current Act).

The code compliance certificate

5.27. In order to determine whether the authority was correct to refuse to grant the code compliance certificate, I have considered the reasons for the authority's refusal, whether the building work carried out under building consent No. 50637 complied

with the Building Code that was current at the time the building consent was issued, and the compliance of the building as a whole after the alteration was carried out.

The reasons for refusal

5.28. The authority's reasons for refusal were set out in its letter of 9 March 2015 (refer paragraphs 2.37 to 2.39). One of the grounds for refusing to issue the code compliance certificate was that the authority had concerns about the "extent and compliance of the timber remediation".

5.29. I have concluded that the replacement of original timber framing was not within the scope of the building consent and the remediation of damaged structural elements was not a requirement of the building consent (refer to paragraph 5.26). Accordingly, I conclude the authority was incorrect to refuse to issue the code compliance certificate on this ground.

The compliance of the external envelope

5.30. The relevant clauses of the Building Code current at the time the building consent was issued are clauses E2 *External moisture* and B2 *Durability*, as set out in Appendix A3.

5.31. Setting aside the dispute regarding the scope of the building consent, it does not appear to be in dispute that the remediation work that involved the external envelope of the house was carried out as set out in the building consent. The original external cladding was replaced with a new EIFS cladding system installed over a cavity, and roof repairs and deck replacement work was carried out.

5.32. This work is now some 15 years old, as the work was substantially complete by 2007. I have taken the age of the building work and anticipation of a modification of clause B2.3.1 into account when considering the weathertightness performance of the external building envelope.

5.33. Based on the expert's report, the external envelope generally appears to have been constructed in accordance with expected trade practice and the manufacturer's instructions at the time of construction, and with suitably detailed flashings incorporated in higher risk weathertightness junctions.

5.34. The expert's observations indicate that the current performance of the building envelope is adequate because there is no evidence of contemporary moisture penetration through the building envelope. I concur with the expert's opinion that the locations where timber decay was found are most likely associated with historic moisture ingress rather than failure of the remediation work to comply with clause E2. The current cladding is over a cavity, with the higher risk weathertightness junctions now incorporating what the expert described as 'suitable detailed flashings'.

5.35. Building Code clause B2 *Durability* requires the external building envelope to remain weathertight for a minimum of 15 years, with some building elements (such as downpipes and protective coatings) required to comply for a minimum of 5 years. A modification of the durability periods in clause B2.3.1 of the Building Code will allow the commencement of that lifespan from the date of the works completion in 2007.

5.36. The external building envelope of the townhouse is now some 15 years old, and the expert's investigations found no evidence of ongoing moisture ingress, which satisfies me that the external envelope has complied with clause B2 insofar as it applies to clause E2, to date. The external envelope is likely to continue to comply and therefore satisfy clause B2 in terms of meeting the 15-year minimum durability period described in clause B2.3.1(b).

5.37. The cladding (including fixings) will also need to comply with clause B2 insofar as it applies to clause B1, for 15 years. The cladding is fixed through to and supported by the timber framing. It is not clear whether the cladding is fixed into the replaced or original timber – on balance I consider the new cladding is likely to be fixed to a mixture of original and new timber framing. Considering the period of time that has elapsed without signs of failure in carrying the imposed loads on the cladding and the cladding itself, I conclude the cladding is compliant with clause B2 insofar as it applies to clause B1.

5.38. The determination is limited to the compliance of remediation work, which is the cladding and its fixings, and does not consider the compliance of the timber framing. There is no evidence of any contemporary weathertightness issues as a result of the remediation work. I also note the expert's comment that 'there was no lack of maintenance' to the external envelope. In this case, the cladding is now 15 years old, meaning some elements will have passed the 5-year durability and the remainder are at the end (or nearly at the end) of the minimum 15-year durability period under clause B2.3.1(b). Based on this, and my view the external envelope complies with the clause E2, I consider the condition of the underlying structure cannot be said to be affecting the compliance of the remediation work carried out to the external envelope.

5.39. I note an amendment to the building consent has been sought to modify Building Code clause B2.3.1 to start from the date of substantial completion. I leave that to the parties to resolve in due course.

5.40. As the remediation work was an alteration to an existing building (refer to paragraph 5), section 38 of the former Act applied to the building consent. Section 38 of the former Act required that after the alteration, the building would 'continue to comply with the other provisions of the Building Code to at least the same extent as before the alteration.'

5.41. There is no suggestion that the building after the alteration has not continued to comply to at least the same extent as before the alteration. I note also that the incorporation of a cavity behind the cladding would improve the drying of timber

that was subject to earlier moisture ingress. It is my view that the requirement of section 38 has been met.

Conclusion

5.42. I am of the view that the remediation work carried out under building consent No. ABA 50637 complies with Building Code clauses B1, E2, and B2.

5.43. I note the expert's inspection of framing exposed at cut-outs shows decayed framing left in situ during the remediation works. The lack of adequate investigation of the underlying structure during recladding work is not best practice, but it does not prevent a code compliance certificate being issued for the recladding work in this case. I suggest it would have been prudent to fully address any effects of that moisture ingress on the underlying framing, and the remediation work presented an opportunity do so.

5.44. Although a code compliance certificate was issued for the original construction, the condition of the underlying structure which has been subject to historic moisture ingress may not meet the expectations of a building owner in terms of performance. This determination should be placed on the building file for the benefit of subsequent owners.

5.45. I note effective maintenance of claddings is important to ensure ongoing compliance with clauses B2 and E2 of the Building Code and is the responsibility of the building owner. The Ministry has previously described these maintenance requirements (for example, in Determination 2007/060).[34]

6. The decision

6.1. In accordance with section 188 of the Building Act 2004, I hereby determine that the authority's decision to refuse to issue the code compliance certificate for the reasons set out in its letter of 9 March 2015 is incorrect. Accordingly, I reverse the authority's decision to refuse to issue a code compliance certificate, requiring the authority to make a new decision taking into account the findings of this determination.

Signed for and on behalf of the Chief Executive of the Ministry of Business, Innovation and Employment on 30 September 2022.

Katie Gordon

National Manager Building Resolution

[34] Determination 2007/060: Determination regarding a code compliance certificate for a house with monolithic and weatherboard wall cladding systems. Issued 11 June 2007.

Appendix A

A1. The relevant provisions of the Building Act 1991 are:

7 All building work to comply with building code

(1) All building work shall comply with the building code to the extent required by this Act, whether or not a building consent is required in respect of that building work.

(2) Except as specifically provided to the contrary in any Act, no person, in undertaking any building work, shall be required to achieve performance criteria additional to or more restrictive in relation to that building work than the performance criteria specified in the building code.

38 Alterations to existing buildings

No building consent shall be granted for the alteration of an existing building unless the territorial authority is satisfied that after the alteration the building will-

(a) Comply with the provisions of the building code for means of escape from fire, and for access and facilities for use by people with disabilities (where this is a requirement in terms of section 25 of the Disabled Persons Community Welfare Act 1975), as nearly as is reasonably practicable, to the same extent as if it were a new building; and

(b) Continue to comply with the other provisions of the building code to at least the same extent as before the alteration.

Schedule 3

Exempt buildings and building work

A building consent shall not be required in respect of the following building work:

(ab) Any other lawful repair with comparable materials, or replacement with a comparable component or assembly in the same position, of any component or assembly incorporated or associated with a building, but excluding—

(i) The complete or substantial replacement of any system listed in section 44(1) or section 44(5) of this Act:

(ii) The complete or substantial replacement of any component or assembly contributing to the structural behaviour or fire-safety properties of the building:

(iii) The repair or replacement of any component or assembly that has failed to satisfy the provisions of the building code for durability:

A2. The relevant provisions of the Building Act 2004 are:

112 Alterations to existing buildings

(1) A building consent authority must not grant a building consent for the alteration of an existing building, or part of an existing building, unless the building consent authority is satisfied that, after the alteration,—

…

(b) A building consent authority must not grant a building consent for the alteration of an existing building, or part of an existing building, unless the building consent authority is satisfied that, after the alteration,—

…

(ii) A building consent authority must not grant a building consent for the alteration of an existing building, or part of an existing building, unless the building consent authority is satisfied that, after the alteration,—

121 Meaning of dangerous building

(1) A building is dangerous for the purposes of this Act if,—

(a) in the ordinary course of events (excluding the occurrence of an earthquake), the building is likely to cause—

(i) injury or death (whether by collapse or otherwise) to any persons in it or to persons on other property; or

(ii) damage to other property; or

(b) in the event of fire, injury or death to any persons in the building or to persons on other property is likely.

123 Meaning of insanitary building

A building is insanitary for the purposes of this Act if the building—

(a) is offensive or likely to be injurious to health because—

(i) of how it is situated or constructed; or

(ii) it is in a state of disrepair; or

(b) has insufficient or defective provisions against moisture penetration so as to cause dampness in the building or in any adjoining building; or

…

436 Transitional provision for code compliance certificates in respect of building work carried out under building consent granted under former Act

(1) This section applies to building work carried out under a building consent granted under section 34 of the former Act.

(2) An application for a code compliance certificate in respect of building work to which this section applies must be considered and determined as if this Act had not been passed.

(3) For the purposes of subsection (2), section 43 of the former Act—

(a) remains in force as if this Act had not been passed; but

(b) must be read as if—

(i) a code compliance certificate may be issued only if the territorial authority is satisfied that the building work concerned complies with the building code that applied at the time the building consent was granted; and

(ii) section 43(4) were omitted.

A3. The relevant clauses of the Building Code (current at the time the building consent was issued):

B1 Structure

Objective

B1.1 The objective of this provision is to:

(a) Safeguard people from injury caused by structural failure,

(b) Safeguard people from loos of *amenity* caused by structural behaviour, and

(c) Protect *other property* from physical damage caused by structural failure.

Functional requirement

B1.2 *Building, building elements* and *sitework* shall withstand the combinations of loads that they are likely to experience during *construction* or *alteration* and throughout their lives.

Performance

B1.3.1 *Buildings, building elements* and *sitework* shall have a low probability of rupturing, becoming unstable, losing equilibrium, or collapsing during *construction* or *alteration* and throughtout their lives.

B1.3.2 *Buildings, building elements* and *sitework* shall have a low probability of causing loss of *amenity* through undue deformation, vibratory response, degradation, or other physical characteristics throughtout their lives, or during *construction* or *alteration* when the *building* is in use.

B1.3.3 Account shall be taken of all physical conditions likely to affect the stability of *buildings, building elements* and *sitework,* including:

(a) Self-weight
(b) Imposed gravity loads arising from use,
(c) Temperature,
(d) Earth pressure,
(e) Water and other liquids,
(f) Earthquake,
(g) Snow,
(h) Wind,
(i) *Fire,*
(j) Impact,
(k) Explosion
(l) Reversion or fluctuating effects,
(m) Differential movement,
(n) Vegetation,
(o) Adverse effects due to inssuficient sepration from other *buildings,*
(p) Influence fo equipmebnt, services, non-structural elements and contents,
(q) Time dependent effects including creep and shrinkage, and
(r) Removal of support.

B1.3.4 Due allowance shall be made for:

(a) The consequences of failure,
(b) The intended use of the *building,*
(c) Effects of uncertainties resulting from *construction* activities, or the sequence in which *construction* activities occur,
(d) Variation in the properties of materials and the characteristics of the site, and
(e) Accuracy limitations inherent in the methods used to preduct the stability of *buildings.*

…

B2 Durability

Objective

B2.1 The objective of this provision is to ensure that a *building* will throughout its life continue to satisfy the other objectives of this code.

Functional requirement

B2.2 *Building* materials, components and *construction* methods shall be sufficiently durable to ensure that the *building*, without reconstruction or major renovation, satisfies the other functional requirements of this code throughout the life of the *building*.

Performance

B2.3.1 *Building elements* must, with only normal maintenance, continue to satisfy the performance requierments of this code for the lesser of the *specified intended life* of the *building*, if stated, or:

(d) The life of the building, being not less than 50 years, if:

  (i) Those *building elements* (including floors, walls, and fixings) provide structural stability to the *building, or*

  (ii) Those *building elements* are difficult to access or replace, or

  (iii) Failure of those *building elements* to comply with the *building code* would go undetected during both normal use and maintenance of the *building.*

(e) 15 years if:

  (i) Those *building elements* (including the *building* envelope, exposed plumbing in the subfloor space, and in-built chimneys and flues) are moderately difficult to access or replace, or

  (ii) Failure of those *buidling elements* to comply with the *building code* would go undetected during normal use of the *building*, but would be easily detected during normal maintenance.

(f) 5 years if:

  (i) The *building elements* (including services, linings, renewable protective coatings, and *fixtures*) are easy to access and replace, and

  (ii) Failure of those *building elements* to comply with the *building code* would be easily detected during normal use of the *building.*

B2.3.2 Individual *building elements* which are components of a *building* system and are difficult to access or replace must either:

(a) All have the same durability, or

(b) Be installed in a manner that permits the replacement of *building elements* of lesser durability without removing *building elements* that have greater durability and are not specifically designed for removal and replacement.

E2 External moisture

Objective

E2.1 The objective of this provision is to safeguard people from ill ness or injury which could result from external moisture entering the *building*.

Functional requirement

E2.2 *Buildings* shall be constructed to provide *adequate* resistance to penetration by, and the accumulation of, moisture from the outside.

Performance

E2.3.1 Roofs shall shed precipiated moisture. In locations subject to snowfalls, roofs shall also shed melted snow.

E2.3.2 Roofs and exterior walls shall prevent the penetration of water that could cause undue dampness, or damage to *building elements.*

E2.3.3 Walls, floors and strutural elements in contact with the ground shall not absorb or transmit moisture in quantities that could cause undue dampness, or damage to *building elements.*

E2.3.4 *Building elements* susceptible to damange shall be protected from the adverse effects of moisture entering the space below suspended floors.

E2.3.5 *Concealed spaces* and cavities in *buildings* shall be constructed in a way which prevents external moisture being transferred and causing condensation and the degredation of *building elements.*

E2.3.6 Excess moisture present a the completino of *construction,* shall be capable of being dissipated without permanent damange to *building elements.*