



Determination 2018/046

Regarding the refusal to issue a code compliance certificate for alterations to a 16-year-old building at 176 McLeod Road, Te Atatu South, Auckland



Summary

This determination considers the compliance of consented alterations carried out on an existing building for which an earlier code compliance certificate also had not been issued and where a significant portion of the existing building remained unaltered. The determination considers the authority's reasons for declining the code compliance certificate for the work, and the provisions of section 115 (change of use) in relation to the work.

1. The matters to be determined

- 1.1 This is a determination under Part 3 Subpart 1 of the Building Act 2004¹ ("the Act") made under due authorisation by me, Katie Gordon, Manager Determinations, Ministry of Business, Innovation and Employment ("the Ministry"), for and on behalf of the Chief Executive of the Ministry.
- 1.2 The parties to the determination are:
 - a co-owner of the building, N Keast ("the applicant")
 - Auckland Council ("the authority²"), carrying out its duties as a territorial authority or building consent authority
 - the mortgagor³, FM Custodians Ltd, as a person defined as an owner under section 7 of the Act. The mortgagor was acting through a legal adviser.

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

² After the original building was completed in 2001, Waitakere City Council was transitioned into Auckland Council. The term "authority" is used for both.

³ The mortgagor became a party to the matter part-way through the determination process after the issue of the first draft determination.

1.3 This determination arises from the decision of the authority to refuse to issue a code compliance certificate for the alterations completed after 2012 to an existing 16-year-old building. The refusal arose because the authority is not satisfied that the alterations comply with certain clauses⁴ of the Building Code⁵.

- 1.4 The authority's concerns relate to some areas of fire walls, the weathertightness and durability of the exterior claddings remaining from the original building, and the condition of the underlying timber framing.
- 1.5 The matter to be determined⁶ is therefore whether the authority was correct to refuse to issue a code compliance certificate for the reasons given in its letter dated 15 February 2018 (see paragraph 3.7).
- 1.6 This matter relates to building work carried out under the following two building consents:
 - No. COM-2000-3974 issued on 18 January 2001 ("the original building")
 - No. ABA-2012-1577 (also referred to as BCO10076156) issued on 30 January 2013 for alterations to part of the original building ("the apartments").

1.7 Matters within this determination

- 1.7.1 In its refusal for the apartment alterations, the authority's concerns were limited to items associated with weathertightness, durability and fire protection. Accordingly, this determination does not address other clauses of the Building Code.
- 1.7.2 On 9 August 2016, the authority approved a modification of durability provisions to allow durability periods to commence from the date of substantial completion in 2001 in regard to elements in the alterations remaining from the original consent COM-2000-3974. I leave the matter of amending the apartment consent ABA-2012-1577 to the parties to resolve in due course.
- 1.8 In making my decisions, I have considered the submissions of the parties, the report of the expert commissioned by the Ministry to advise on this dispute ("the expert") and the other evidence in this matter.

2. The building work

2.1 The development

- 2.1.1 The property on the northern side of McLeod Road originally consisted of undeveloped industrial land surrounded by a mix of industrial activities and residential development. The near flat site is some 150m from a tidal tributary and is in a medium wind zone described in NZS 3604⁷.
- 2.1.2 In 2000, resource consent was granted to establish 'a residential retirement complex and private hospital facility'. The complex was originally planned to include 183 single and double storey dwelling units and communal facilities that included a reception, recreation centre, shop, doctor's room, hairdresser, gym and a sauna.

⁴ In this determination, references to sections are to sections of the Act and references to clauses are to clauses of the Building Code.

⁵ First Schedule, Building Regulations 1992

⁶ Under sections 177(1)(a), 177(1)(b) and 177(2)(d) of the Act

⁷ New Zealand Standard NZS 3604:1999 Timber Framed Buildings

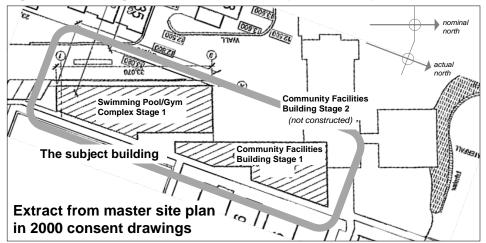
2.1.3 Building consents were issued for 67 dwelling units and unit titles were subsequently obtained for properties lying to the south and south west of the site (Stages 1 and 2 of the development). However, the complex was not operated as a retirement village and a resource consent was issued for units to be used for residential purposes.

2.1.4 In 2006, the remainder of the site was subdivided into four lots, with different activities and buildings planned and staged for each area. Lot 2 of the subdivision included the site of the original building (see Figure 1).

2.2 The original building (No. COM-2000-3974)

2.2.1 The original building was constructed in 2001 in the form of two separate buildings linked with a covered walkway as shown in Figure 1:

Figure 1: The original facilities complex (not to scale)



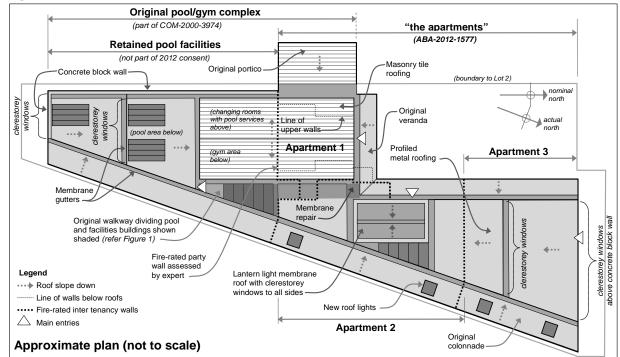
2.2.2 The consent drawings for the original building showed a pool, spa and gym area, changing rooms and administrative/foyer/reception areas in the south building ("the pool building"); with doctor's accommodation, hairdresser, storage, kitchen and cafe in the north building ("the community facilities building"). Because the retirement village did not proceed, the latter accommodated only office areas, which did not prove viable given the location of the building within the residential development.

2.3 The apartment alterations (ABA-2012-1577)

- 2.3.1 In 2010, resource consent was given to convert the community facilities building and the northern quarter of the pool building into apartments as shown in Figure 2, with the pool/gym area and changing rooms retained. The building work included interior alterations, minor alterations to exterior claddings and screening of the existing veranda and colonnade to provide semi-private outdoor spaces.
- 2.3.2 As shown in Figure 2, the apartments provide:
 - <u>Apartment 1 (two levels)</u>: Entry from the north veranda into an open plan living/dining/kitchen area to the north with two bedrooms, a bathroom and stairs to the south. Within the existing roofline, an upper level master bedroom to the north, with a study, bathroom and store to the south.
 - <u>Apartment 2</u>: Entry from the west veranda into a central open plan living/dining/kitchen area, with two bedrooms and a bathroom to the north and a master bedroom and ensuite to the south.

• <u>Apartment 3</u>: Entry from a new timber deck to the north into an open plan living/dining/kitchen area with a study to the west, two bedrooms and a bathroom to the south and a master bedroom and ensuite to the northwest.

Figure 2: The 2012 alterations



- 2.3.3 Construction is generally conventional light timber frame; with concrete foundations and floor slab, timber framed upper floor, weatherboard and concrete block wall claddings, aluminium windows and three types of roofing as shown in Figure 2. The steep pitched gabled roof and the existing portico include specifically engineered glue-laminated timber and steel portal frames.
- 2.3.4 The 35° pitch gabled roof to Apartment 1 is clad with clay tiles, and the 1.5° pitch 'lantern light' roof above Apartment 2 is clad in butyl rubber membrane. The remaining roofs are generally 5° pitch profiled metal. All roofs slope to butyl rubber internal gutters, with clerestorey windows above Apartment 3 and the pool area.
- 2.3.5 The November 2000 specification for the original facilities building called for timber framing to be 'chemical free' radiata pine. Timber framing used in the 2012 alterations is H1.2⁸ treated. I therefore consider that the timber framing in the altered section of the building is likely to be a mix of untreated and H1.2 treated timber.
- 2.3.6 The original wall claddings have been retained and patched as required. The west and south walls to the original pool complex are plastered concrete block as shown in Figure 2. The north wall to Apartment 3 was originally unfinished concrete block, which has now been plastered. Columns to the original colonnade and veranda are clad in textured fibre-cement, with remaining walls clad in horizontal bevel-backed timber weatherboards fixed through the building wrap directly to framing timbers.

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⁸ Timber treatment class to New Zealand Standard NZS 3602: Part 1: 2003 Timber and wood-based products for use in building

3. Background

3.1 The original building (No. COM-2000-3974)

3.1.1 The authority issued the building consent for the original building (No. COM-2000-3974) on 18 January 2001 under the Building Act 1991 ("the former Act"). It is likely that inspections were carried out during construction, because consent amendments dated 10 October and 18 December 2001 were recorded in a computer summary (apparently for various as-built changes).

- 3.1.2 The fire design report for the original building, dated 6 November 2000, considered the building had two uses, WL (Working Low)⁹ and CS (Crowd Small), and provided a fire design on the basis of a single fire cell for the more onerous use, being CS.
- 3.1.3 The original building had been planned to provide community and pool facilities for the intended retirement village, which did not eventuate. Although the pool/gym areas continued to be used by some residents of the village, by 2010 the remaining areas were occupied as professional offices by the village developer and it was proposed to convert those office areas into three individual apartments.

3.2 The 2012 inspections

3.2.1 When documenting the proposed apartments, the authority reviewed the status of the building consent COM-2000-3974 and carried out building and plumbing inspections of the original building on 24 May 2012. The inspection records noted failures in regard to the building exterior and the hot water cylinder.

3.3 The construction of the apartments (ABA-2012-1577)

3.3.1 The authority revisited the property and took general photographs of the exterior on 12 June 2012. In an email dated 19 June 2012 to the applicant's business partner the authority referred to the commercial status of the original building and suggested that:

...a way forward from here would be as follows:

Continue on with your application for a new building consent etc. however, the application is to be submitted in the knowledge that any existing 'elements of the building' untouched, not removed or not replaced under the new building consent must be proven to [the authority] that they are performing and will continue to perform for their intended lifespan (i.e. – 5 years for easy to replace elements, 15 years for claddings etc and no less than 50 years for anything structural).¹⁰

- 3.3.2 In a letter to the authority dated 18 December 2012, the designer confirmed that the building consent for the apartments:
 - ...changes the use of the existing building from commercial to residential. The area of building not covered by the above consent remains commercial use.
- 3.3.3 The authority issued a building consent for the apartments (ABA-2012-1577) to the applicant under the current Act on 30 January 2013 for 'existing offices to be fitted out to be 3 new apartments.' The building consent documents include a letter from the designer dated 18 December 2012 that says:

⁹ The use categories as they are described here are taken from the Acceptable Solution for the Fire Safety Clauses that was in force at the time the original consent was issued.

¹⁰ This was incorporated into the apartments consent drawings as a general note.

This letter confirms that [building consent ABA-2012-1577] changes the use of the existing building from commercial to residential. The area of the building not covered by the above consent remains commercial use.

The consent did not appear to address the specific matters raised by the authority in paragraph 3.3.1.

- 3.3.4 The fire design report for the apartment alterations, dated 27 July 2012, described the use of unaltered the pool area as CS (Crowd Small) and the three apartments as SR (Sleeping Residential). The consent application was also supported by design reports for Clause B1 Structure, and Clause G6 Airborne and impact sound.
- 3.3.5 The authority carried out a number of inspections during construction between April and July 2013; the apartments appear to have been substantially completed during 2013. It appears that the authority visited the site and took photographs of the veranda and parking areas on 4 March 2014. A site meeting was held on 3 December 2015 to discuss outstanding matters of compliance.

3.4 The 2016 final inspections of the apartments (ABA-2012-1577)

- 3.4.1 The authority carried out the first final inspection on 1 April 2016, which excluded the building exterior but identified some minor plumbing items to be attended to. A reinspection on 12 May 2016 identified the roof cladding and building exterior as 'not applicable' and noted that 'no photos taken as only inside work carried out.' The inspection was recorded as a 'pass'.
- 3.4.2 The applicant applied for a code compliance certificate for consent ABA-2012-1577 and on 30 May 2016 the authority requested further information 'to complete the processing', with reminders on 24 June and 2 August. On 7 September 2016, the authority gave notice that the code compliance certificate would be refused if no response was received.

3.5 The 2016 refusal to issue a code compliance certificate for the original building (COM-2000-3974)

- 3.5.1 The applicant applied for a code compliance certificate for COM-2000-3974 and submitted an 'application for modification relating to B2 Durability' dated 8 August 2016, which noted the age of the building work as 15 years.
- 3.5.2 The authority revisited the site on 31 August 2016 and took a series of photographs of the exterior of the building. Photographs include the roofs and gutters.
- 3.5.3 The authority wrote to the applicant on 15 September 2016 advising that it "cannot be satisfied on reasonable grounds that the completed building works would comply with the consented plans / building code." The authority stated that the reasons for its decision were in relation to what it considered were defects to the wall cladding, the roof, and the interior of remaining pool complex; and because of missed site inspections and limited access to undertake final inspections.
- 3.5.4 The applicant disputed the refusal and email correspondence followed, with the authority explaining that a process for older building consents was followed and repeating the need for a building surveyor's report and also an engineer's report on the structural timber beams. Further photographs of defects were taken during a site visit on 10 October 2016.

3.6 The application for a determination

3.6.1 The Ministry received an application for a determination on 17 January 2018 and sought further information and clarification from the parties in regard to (in summary):

- the property file for both building consents
- confirmation of the 2016 section 95A refusal for COM-2000-3974
- whether a section 95A refusal had been issued for ABA-2012-1577
- confirmation that a code compliance certificate is sought for ABA-2012-1577, but not for COM-2000-3974 (confirmed by the applicant via email on 24 January 2018).
- 3.6.2 Subsequent correspondence between the parties included an email to the applicant dated 12 February 2018 which included confirmation from the authority that:

[The authority] does not expect areas that do not impact on the Code compliance, performance and durability of the works as contained in ABA 2012-1577 to be addressed [within the ABA-2012-1577] [code compliance certificate] application. The areas of the pool complex that do not directly affect Apartment 1 should be addressed under the original consent COM 2000-3974 but elements that abut the fire rated wall location will need to be reviewed to confirm they will not affect the performance of the new works

3.7 The 2018 refusal to issue a code compliance certificate for the apartment alterations (ABA-2012-1577)

- 3.7.1 In a letter to the applicant dated 15 February 2018, the authority refused to issue a code compliance certificate for the apartments because it could not 'be satisfied on reasonable grounds that the completed building works would comply with the consented plans/building code' and again recommended that a building surveyor be engaged to 'investigate the performance' of the building.
- 3.7.2 The authority noted that its reasons for refusal related to the following (in summary):
 - the general note on consent drawing sheet 1.00 referred to the remaining unchanged parts of the original building and stated:

This application is to be submitted in the knowledge that any existing 'elements of the building' untouched, not removed or not replaced under the new building consent, must be proven to [the authority] that they are performing and will continue to perform for their intended lifespan (i.e. – 5 years for easy to replace elements, 15 years for claddings etc and no less than 50 years for anything structural)

- building consent ABA-2012-1577 was issued on the basis that a review of the above would be required to ensure that the apartments would not be adversely affected by the remaining part of the original building, but no such evidence or survey has been received
- inspections of the original consent COM-2000-3974 had identified:
 - o areas of concern that could impact on the recent alterations
 - o lack of confirmation of performance of the exterior building envelope
 - o evidence of repairs without authority oversight
 - o gutter holding water.

3.7.3 The authority carried out a site visit on 22 February 2018 and subsequently provided a 'Photo File' as part of its response to the draft determination, refer paragraph 4.2.3.

4. The submissions

4.1 The initial submissions

- 4.1.1 The applicant made no formal submission but provided copies of:
 - the building consents for the original building and the apartments
 - the consent drawings for the apartments
 - the final inspection record for the apartments
 - the authority's 2016 refusal to issue a code compliance certificate for the original building
 - correspondence with the authority
 - extracts from meeting records and various other information.
- 4.1.2 The authority made no initial submission, but on 19 February 2018 forwarded an electronic copy of documents pertinent to this determination, which included:
 - consent documents for the original building and the apartments
 - the final inspection records dated 24 May 2012 for the original building
 - photographs taken during the above inspection of the original building
 - the inspection records for the apartments
 - the site meeting record dated 3 December 2015 for the original building
 - the 2016 final inspection records for the apartments
 - correspondence with the applicant and the project manager
 - resource consent reports and subdivision background information
 - various early design proposals and other background information.

4.2 The draft determination and the submissions received

- 4.2.1 A draft determination was issued to the parties for comment on 20 April 2018. The determination reversed the authority's decision to refuse to issue the code compliance certificate in respect of building consent ABA-2012-1577, and directed the authority to make a new decision taking the determination's findings into account. The draft determination did not consider the application of the change of use provisions under section 115 and the determination has been amended to take those provisions into account.
- 4.2.2 The applicant accepted the draft on 26 April 2018 without comment. The mortgagor was not a party to the matter at the time the draft determination was issued.
- 4.2.3 The authority did not accept the draft determination. With its response dated 8 May 2018, the authority attached a 'Photo file' ("the photo file") recording items identified in a site visit undertaken on 22 February 2018. (I note that this visit was one week after the 2018 refusal to issue a code compliance certificate).

4.2.4 In regard to its refusal to issue a code compliance certificate for the apartment alterations (ABA-2012-1577¹¹), the authority referred to the photo file and noted (in summary):

- some defects in the alteration work do not comply with fire safety requirements
- water entering a roof 'can track widely' and identified defects may therefore allow water entry that can adversely affect durability of the alteration work – so defects need attending to despite elements having met durability periods
- in regard to the potential for existing building work to adversely impact any contemplated alteration work:
 - o investigation of existing concealed elements is likely to be easier if undertaken when new building work is carried out
 - o ABA-2012-1577 was therefore based on an 'agreed confirmation of performance methodology' in regard to COM-2000-3974 work.
- 4.2.5 In addition to the photo file, the authority forwarded an electronic copy of the complete property file together with photographs of building work taken during site visits on the following dates:
 - 12 June 2012 prior to the apartment alterations (see paragraph 3.3.1)
 - 31 August 2016 prior to the 2016 refusal to issue a code compliance certificate for COM-2000-3974 (see paragraph 3.5.2)
 - 10 October 2016 following the 2016 refusal to issue a code compliance certificate for COM-2000-3974 (see paragraph 3.5.4).
- 4.2.6 When the expert's addendum report was issued to the parties on 26 July 2018 for comment (refer paragraph 6.1.1) the Ministry asked the parties whether they wished to see a second draft determination or wanted the determination finalised and issued.
- 4.2.7 On 27 July 2018 the applicant advised she wished the final to be issued without further discussion. In an email also dated 27 July the mortgagor's legal adviser requested that the determination be finalised and issued.
- 4.2.8 The authority responded on 30 July 2018 saying that unless substantive changes were made to the determination's findings and the decision there was little benefit to be gained by a second draft. However, the authority noted:
 - the determination should record that the authority was correct to refuse the issue of the code compliance certificate given the deficiencies noted in the addendum report
 - "there are a few areas of the firewall which need to be addressed" in addition to the defect observed by the expert
 - clarification was sought in respect of the role of normal maintenance of the existing building work and role of that maintenance on the performance of the new work, saying:

It seems to [the authority] that there is a difference in principle between statutory reliance on normal maintenance to preserve an acceptable status quo with respect to durability, and reliance on normal maintenance to remedy problems where a continuation of the status quo would be unacceptable for durability reasons.

¹¹ The authority refers to consent numbers ABA-2012-1517 and ABA-2010-1517, which I have taken to be typographical typing errors.

4.2.9 In an email dated 30 July 2018 the mortgagor's legal adviser did not consider the final matter raised by the authority in paragraph 4.2.8 should be addressed in the determination.

- 4.2.10 On 6 August 2018, and in response to the authority, the applicant accepted there was "a small piece of [fire-rated plasterboard]... missing from [the] wall in the pool room' but noted this had been inspected by the authority.
- 4.2.11 The following is noted in response to the matters raised by the authority (last bullet point in paragraph 4.2.8):
 - As noted in paragraph 0, the provisions of section 115(a) require that when there has been a change of use, the building in its new use shall comply "as nearly as is reasonably practicable" with all the provisions of the Building Code. In respect of the subject building this applies to that part of the building that has undergone a change of use.
 - The expert has identified matters that he considers maintenance of the external envelope completed under the original consent. However, given the provisions of section 115(a) as it applies to the external envelope, it is considered that any items of maintenance should be completed now so that that the cladding is compliant to the extent required under section 115(a).
 - What is considered normal maintenance has been covered in past determinations, in particular Determination 2010/079¹² which said it "can be considered to include, regular inspections, repair of faults that may have developed, or the replacement of items that have come to the end of their life"; it does not include "the rectification of construction defects". Achievement of the required durability periods in Clause B2.3.1 rests on normal maintenance being undertaken and is the responsibility of a building owner.

5. The expert's initial report

5.1 General

- 5.1.1 As mentioned in paragraph 1.8, I engaged an independent expert to assist me. The expert is a member of the New Zealand Institute of Architects and inspected the building on 13 and 21 March 2018, providing a report dated 2 April 2018 which was forwarded to the parties on 3 April 2018.
- 5.1.2 The expert noted that the scope of his inspection was to provide an opinion about whether the authority 'was correct to refuse code compliance certificate for alterations where there was no code compliance certificate for retained construction.' The consent drawings had called for proof of performance of existing elements retained from the original building.
- 5.1.3 The expert noted that his report was based on visual observation of 'features of the roof, interiors, and firewall between Apartment 1 and the swimming pool', together with a review of the authority's property file and other available information.

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¹² Determination 2010/79 The code compliance of a 7-year-old monolithic-clad house with a moisture detection system (6 September 2010)

5.1.4 The expert noted that the apartments included the following exterior elements:

- new aluminium joinery installed in original exterior walls
- small sections of external wall cladding where exterior walls changed
- new roof lights to original colonnade
- ground level timber decking to the north of Apartment 3.
- 5.1.5 The expert did not carry out a detailed review, but noted that the building was generally as described in the apartments consent drawings, except for:
 - omission of stores, enclosures and lawns to the west of Apartments 2 and 3
 - rusticated weatherboards in lieu of fibre-cement to altered exterior areas
 - (I also note that the upper deck to Apartment 1 was omitted.)
- 5.1.6 In regard to the reason for the authority's refusal to issue a code compliance certificate, the expert noted:
 - The note on Drawing 1.00 of the apartments refers to the requirement for proof of performance of 'existing elements untouched, not removed or not replaced under the new building consent' and the refusal notes that no 'evidence or survey' of performance has been received.
 - The refusal does not raise any issues about the building work carried out under the apartments consent (and I note that the final inspections passed the work).
 - Section 94(1) of the Act requires the authority to issue a code compliance certificate if the <u>building work complies</u> with the building consent, but it seems doubtful whether 'evidence or survey' of retained elements can be construed as building work.
- 5.1.7 In regard to 'those elements of the existing construction upon which the performance of the new build depend', the expert discussed this with the relevant authority official who confirmed the content of his email of 12 February 2018 (see paragraph 3.6.2) that the only outstanding issues are (see Figure 2):
 - original elements abutting the Apartment 1/pool area firewall (see paragraph 5.4.1)
 - the repaired roof and gutter areas (see paragraph 5.3.2).

5.2 Moisture investigations

- 5.2.1 The expert visually assessed internal linings to exterior walls and ceilings of the apartments and noted that these 'were free from mould, stains, swelling or other clear signs of moisture ingress.' Non-invasive moisture readings taken at sample areas were 'uniform and low'.
- 5.2.2 The expert also noted that:
 - pre-line inspection records indicated that framing was dry
 - the veranda and colonnade roofs shelter the east and west elevations of Apartments 2 and 3
 - the west wall of Apartment 1 is sheltered by the original portico and the lower north wall is sheltered by the veranda

- the exposed north wall to Apartment 3 is masonry.
- 5.2.3 The expert considered that the lack of evidence of moisture ingress together with the above circumstances 'provides reasonable evidence that the parts of the existing building on which the new construction depends for weathertightness have performed adequately to date'.

5.3 The roofs to the apartments

- 5.3.1 The original roof is now more than 15-years-old and has exceeded the durability requirements of the code. Taking its age into account, the expert inspected the clay tiles, profiled metal and butyl rubber roofs and gutters above apartments; noting that:
 - all roofing types were in sound condition despite their age and appear capable of continuing performance given ongoing maintenance
 - extract vents from new ventilation fans are fitted with appropriate flashings which extend up to ridge lines
 - minor dents were observed to several crests in the profiled roofing, but not sufficient to compromise performance.
- 5.3.2 In regard to previous roof repairs above the Apartment 1 to 2 junction (see Figure 2), the expert noted that:
 - the repaired area is small and there is minor ponding to an adjacent area
 - there is no information on the reason for the repair, so it is unclear whether work would have been exempt under Schedule 1 from requiring a consent
 - prior to the alterations, the area was an open walkway and any leak would have penetrated into the walkway soffit
 - the walkway soffit was removed as part of the 2013 alterations and new walls passed pre-line and framing inspections (see paragraph 3.3.4)
 - any leaks in flat roof membranes are commonly quickly visible below and there are no current signs of any moisture penetration into new ceilings
 - the first final inspection on 1 April 2016 was some two years prior and this also did not identify any signs of any moisture penetration into underlying ceilings
 - taking account of the above, any prior leak therefore appears to have been adequately repaired and has performed to date.

5.4 Assessment of adjacent original areas

- 5.4.1 In regard to the Apartment 1/pool complex firewall, the expert made a cut out to the base of the firewall to investigate the existing structure and noted that:
 - the new firewall had been constructed by:
 - o trimming the base of the original framing
 - o casting a new concrete nib
 - o constructing new 140 x 45mm framing parallel to original framing
 - o fixing two layers of fire-resistant plasterboard.
 - the firewall construction was inspected and passed by the authority (see paragraph 3.3.4)

- the original retained framing is in sound condition
- the adjacent masonry wall at the west end of the firewall appears sound
- the adjacent return firewall at the east end also appears sound.
- 5.4.2 The expert also assessed the remaining pool/gym area and noted (in summary):
 - decay to the bottom of some of the structural glue laminated portal frames
 - water damage to some roof framing below the pool room roof lights
 - rust to metal profile under a plasterboard corner adjacent to entry door
 - broken glass to a roof light above the pool
 - standing water in the unused swimming pool.
- 5.4.3 Although the construction was dry when inspected, it was not clear whether the moisture damage observed was solely due to external moisture or from condensation from the partly-filled pool. The expert noted that the swimming pool water provided a potential source of continuing internal moisture even if the necessary repairs and maintenance were undertaken.
- 5.4.4 The expert noted the original cladding elements were past their minimum 15-year durability periods required by Clause B2.3.1. The expert found no evidence that the above defects were likely to impact on the compliance of apartment alterations and any defects should be addressed via the original consent.

5.5 Maintenance

- 5.5.1 The expert noted that maintenance to the pool/gym complex had not been adequate, which has resulted in the damage described above, noting that this will need attention to ensure structural durability is achieved.
- 5.5.2 However, the expert observed that maintenance and repair of existing elements in the external envelope of the apartments appeared to have been adequate to date. Although the original wall and roof claddings are beyond their required durability, continuing maintenance or replacement would be needed to ensure the required durability of the underlying structure.
- 5.5.3 Normal maintenance will be needed, including 'cleaning gutters and outlets, painting and replacement will be required for items which have reached the end of their service life.'

5.6 Summary

5.6.1 In regard to the authority's requirement for proof of performance of elements remaining from the original building, the expert concluded that:

This investigation found no evidence that roof repairs or the structure of and immediately adjacent to the fire wall between Apartment 1 and the swimming pool (which are the [authority's] particular concerns) are likely to result in the 2012 consented work failing to comply with NZBC clauses E2 and B2.

6. The expert's addendum report

6.1 General

6.1.1 Following the authority's response to the draft determination as outlined in paragraph 4.2, the expert revisited the site on 27 June and 4 July 2018, providing an addendum report on 23 July 2018, which was forwarded to the parties on 24 July 2018.

6.1.2 The expert noted that his addendum report was intended to review the authority's response to the draft determination and the photo file attached to that response.

6.2 The authority's photo file

- 6.2.1 The expert assessed the items identified by the authority in its photo file dated 22 February 2018, taking moisture levels of associated framing and visually assessing associated linings. He also commented on the authority's concerns identified in response to the draft determination (see paragraph 4.2.4).
- 6.2.2 Table 1 summarises the expert's comments (with my added comments shown in brackets):

Table 1: The authority's concerns

Items (in summary)			Expert's comments	*
1	Internal			
a)	Pool area noted but no direct impact on adjoining apartments			
b)	Evidence of moisture ingress to wall directly adjoining firewall to underside of roof pool side of intertenancy wall	E2 B2	 Moisture readings in gutter framing in photo - 17% and 15%. Both readings below level leading to decay in untreated framing. Moisture measured in winter following rain, with no significant risk of decay at date of inspection. Steel gib screws at corner of firewall and pool wall – bright and rust-free, indicating corner has been dry since 2016 or earlier. Staining very likely caused by condensation of water vapour 	A B
			 within roof/gutter space when swimming/ spa pools operating. Will need addressing for code compliance certificate for COM-2000-3974 but not for compliance of the apartment consent ABA-2012-1577. 	
c)	Firewall between pool area and adjoining apartment - gaps evident, plaster board fixing incomplete, unprotected pipe penetrations	С	 Small area of fire-rated plasterboard missing from the pool side of intertenancy firewall, within the mezzanine floor framing. Redundant copper pipe penetrates floor joist. 	D

Items (in summary)		CI.	Expert's comments	*
d)	Sprinkler system decommissioned	С	 Property file has fire reports for original consent COM-2000-3974 and alterations consent ABA-2012-1577. COM-2000-3974 proposes sprinkler system and some 15/15/15 fire-rated walls to sleeping areas and fire cells. Fire report for ABA-2012-1577 proposes 45/45/45 walls without sprinklers for the apartment/apartment and apartment/pool walls – and consent drawings accord with fire report. As built firewall therefore provides fire separation between pool and apartments in accordance with consent ABA-2012-1577. Sprinkler system may need to be re-commissioned, or other provisions put in place to prevent risk of fire spread from the pool area across other boundaries. Re-commissioning needs to be addressed for COM-2000-3974 code compliance certificate but not for compliance of the consent ABA-2012-1577. 	A B
e)	Unable to confirm if compliant type 1 fire alarms installed in individual units	C	 Final Inspection record 12/05/16 notes 'Pass' for smoke alarms for the apartments. Confirmed that alarms in Apartment 2 were in place. 	A
2	External			
a)	Water ponding isolated areas of roof	E2 B2	 Isolated areas of ponding. Apartment ceilings below photos inspected – free from signs of moisture ingress. 	A
b)	Waterproofing membrane to overflow outlet not completed /formed	E2 B2	Membrane clamp missing at one overflow.	С
c)	Waterproofing membrane blistering/ coming away at corners	E2 B2	Edges to some laps lack adhesion.	С
d)	Repairs carried out to roof membrane – extent / damage unknown as not inspected	E2 B2	 Covered in first report – see paragraph 5.3.2 Repaired area small - minor ponding to an adjacent area. Reason for repair unknown, so not clear whether work would have been exempt under Schedule 1 from requiring a consent. Prior to alterations, area was open walkway - any leak would have penetrated into walkway soffit Walkway soffit removed as part of 2013 alterations and new walls passed pre-line and framing inspections. Flat roof membranes leaks quickly visible below - no signs of any moisture penetration into new ceilings. First final inspection on 1 April 2016 some two years prior – no moisture penetration into underlying ceilings identified. 	A
e)	Roofing iron split in areas – water able to enter building	E2 B2	Covered in first report – see paragraph 5.3.1 Minor damage insufficient to compromise performance.	С
	Roof pipe penetrations – flashing perished – allowing	E2	Flashing rubber perished – requires replacement.	С
f)	water entry	B2	Tradining rassor pondinos requires replacements	

Items (in summary)		CI.	Expert's comments	*
h)	Insufficient over lapping of cap flashing	E2 B2	 Although overlaps small, parapet framing is also protected by butyl rubber extended over upstand. Moisture content of framing below two areas measured at 16% and 17%. Moisture levels low – indicating adequate performance. 	Α
i)	Cap flashings not completed	E2 B2	 Soft edge turned down but no downturn to parapet capping. (Photos appear to relate to original veranda and colonnade) (Outer edges so remote from apartments). (No evidence of associated moisture damage). 	B C
j)	Saddle flashings do not appear to have been installed	E2 B2	 Moisture content of framing below area measured. Moisture level 16% – indicating adequate performance. Photographed area remote (11m) from apartment work. 	A
k)	Apron flashings not properly formed and/ or completed	E2 B2	 Moisture content of framing below area measured. Moisture level 13.4% – indicating adequate performance. 	Α
I)	Ridge capping downturns not folded – potential for water to enter building	E2 B2	Probing under ridge capping detected turn up at roof sheet end.	Α
Ema	ail dated 8 May 2018			
1)	Some defects in the alteration work do not comply with fire safety requirements	C (Fire)	Covered in comments above – refer 1c), d) and e).	-
2)	Identified defects may allow water entry that adversely affects durability of alteration work – so these need attending to despite elements having met durability periods	E2 B2	 Defects addressed as maintenance. (Identified defects have not resulted in a reduction in durability of alteration elements in past 5 years). 	С
3)	Potential for existing building work to adversely impact alteration work – so ABA-2012-1577 was based on an 'agreed confirmation of performance methodology' in regard to COM-2000-3974 work	E2 B2	 Except for item 1c) (missing plasterboard), authority appears satisfied with ABA-2012-1577 building work. Doubtful that evidence of performance of COM-2000-3974 building work can be construed as building work under alterations consent ABA-2012-1577. If not, then code compliance certificate should be issued under section 94(1) 	-

Notes (the expert's findings and my conclusions):

- A ABA-2012-1577 building work complies with building consent and building code
- B Should be addressed as part of original COM-2000-3974 building work
- C Should be addressed as item of maintenance
- D Repairs required for compliance of apartment alterations ABA-2012-1577 building work

6.3 Summary

6.3.1 In regard to the authority's response to the draft determination and the photo file attached to those responses, the expert concluded that the only identified area requiring attention was the 'small area of fire rated plasterboard' missing from 'the inter-tenancy firewall lining under the mezzanine pool plant room floor.'

6.3.2 In regard to maintenance, the expert confirmed his opinions expressed in his first report (see paragraph 5.5), and stated:

Normal maintenance will be required, including cleaning gutters and outlets, painting, and replacement will be required for items which have reached the end of their service life. Some of this is overdue in respect of the COM-2000-3974 consented work.

7. Discussion: the apartment alterations

7.1 The matters in dispute

- 7.1.1 The authority's letter dated 15 February 2018 sets out its reasons for declining the code compliance certificate for the apartment alterations (ABA-2012-1577). The letter did not refer to any specific areas of non-compliance with building work described in that consent.
- 7.1.2 The doubts the authority has about the compliance of the apartments rested on whether there is any adverse impact on that work caused by any non-compliance of the original building work under consent COM-2000-3974. The authority expected that non-compliant elements that do not impact on the code compliance of work under the apartment consent would be addressed under the original consent (refer 1st bullet point paragraph 3.7.2). Additionally, the authority expected that the performance of building elements in the original consent were to be assessed to confirm they did not adversely affect the performance of the work in the apartment alterations and called for proof of performance to be provided to this effect.
- 7.1.3 However, in its response to the draft determination, the authority identified and clarified those building elements in the original consent which had raised concerns about their potential to adversely affect the performance of the work in the apartment alterations I consider this in section 8 of this determination. The matters in dispute relate to the compliance of the consent for the apartment alterations with Clause E2 External moisture (with respect to the performance of the existing building envelope completed under the 2000 consent) and the fire safety clauses (with respect to the new firewall between the pool area and Apartment 1 completed under the 2012 consent).

7.2 The change of use and the application of section 115

7.2.1 The building consent for the apartment alterations was made on the basis that part of the building had undergone a change of use. The original building use was CS (Crowd Small). The 2012 fire design report for the apartment alterations considered the use of the pool area has remained as CS, but that the portion of the building now being used as apartments had changed from CS¹³ to SR. It is noted that in respect of the change of use, the use categories as noted here are also the same as they are described in the Building (Specified Systems, Change the Use, and Earthquake-prone Building) Regulations 2005 ("the Regulations") – refer Appendix A.

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¹³ The part of the building that had undergone the change of use is WL (Working low), however, the fire design for the original building had treated the whole building as a single fire cell with use CS, refer paragraph 3.1.2.

7.2.2 Section 115 of the Act says:

An owner of a building must not change the use of the building,—

(a) in a case where the change involves the incorporation in the building of 1 or more household units where household units did not exist before, unless the territorial authority gives the owner written notice that the territorial authority is satisfied, on reasonable grounds, that the building, in its new use, will comply, as nearly as is reasonably practicable, with the building code in all respects;

- 7.2.3 The application of change of use provisions have been considered in detail in past determinations, most notably Determination 2015/070¹⁴. Determination 2015/070 considered the change of use provisions only applied to that part of the building undergoing a change of use and not the building as a whole. The findings of Determination 2015/070 apply equally in this case in that only part of the building has undergone a change of use as noted above.
- 7.2.4 In this case the use has changed, in terms of the Regulations, from CS to SR and the change of use means that a portion of the building now contains three "household units" where they did not exist before, meaning the provisions of section 115(a) apply.
- 7.2.5 A change of use will trigger additional or more onerous obligations under the relevant clauses of the Building Code, requiring the authority to make an assessment under section 115. As noted in paragraph 3.3.4, the consent for the apartment alteration was supported by design reports in relation to fire safety, structure, and sound which are the principle clauses to be considered with respect to upgrading for the new use.
- 7.2.6 In relation to the satisfaction of other relevant Building Code clauses where the apartment's compliance relies on the existing building elements, the consent documents note the existence and retention of the existing roof and wall claddings and existing thermal insulation in the building envelope (respectively Clauses E2 External moisture, and H1 Energy efficiency).

Clause E2 Exterior moisture

7.2.7 The external building envelope is an existing building element. In relation to the performance of the building envelope with respect to Clause E2, there is nothing additional or more onerous in respect of those parts of the building now used as residential accommodation. The assessment under section 115(a) is that the authority must be satisfied, on reasonable grounds, that the parts of the building now used as residential accommodation will comply with Clause E2 as nearly as reasonably practicable.

The Fire Safety Clauses

7.2.8 The firewall between the pool area and Apartment 1 is a new building element completed under 2012 consent for the apartment alterations. It is required to fully comply with the fire safety provisions of the Building Code that were in force at the time the 2012 consent was issued.

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¹⁴ Determination 2015/070 Regarding the refusal to issue a building consent for the change of use from commercial to residential of one level in a multi-level building (6 November 2015)

7.3 The application of Section 112(1)(b)

7.3.1 Section 112(1) of the Act says:

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,—

- (a) ..
- (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.
- 7.3.2 In addition to section 115(a), section 112(1)(b) requires that the original building after the alterations will remain compliant to the extent it did prior to the alterations. In other words, any building work carried as part of the apartment alterations must not reduce the level of compliance of the other parts of the original building, either directly or indirectly. The expert found no evidence that the apartment alterations have adversely affected the compliance of the original building, and no evidence to this effect has been provided by the authority.

8. Discussion: the matters in dispute

8.1 Clause E2 External moisture: the performance of the exterior envelope

- 8.1.1 The evaluation of external building envelope for compliance with the Building Code and the risk factors considered in regards to weathertightness have been described in numerous previous determinations (for example, Determination 2004/1).
- 8.1.2 The apartments have the following environmental and design features, which influence their weathertightness risk profile:

Increasing risk

- weatherboards are fixed directly to the wall framing
- the roof is complex, with three different roof claddings that fall towards internal gutters and clerestorey windows within the body of the roof
- there are no roof overhangs above the north-facing clerestorey windows and the north wall to Apartment 3
- there is no evidence of treatment to the original wall framing.

Decreasing risk

- the upper floor to Apartment 1 is within the original roof line
- most of the lower wall claddings are sheltered beneath deep canopies
- any new framing is treated to provide resistance to decay.

8.1.3 Using the E2/AS1¹⁵ risk matrix to evaluate these features, the apartments are assessed as having a moderate weathertightness risk rating. If details shown in the current E2/AS1 were adopted to show code compliance, a drained cavity would be required for the weatherboard and fibre cement wall claddings. However, this was not a requirement at the time of installation of the original claddings in 2001.

- 8.1.4 The original building envelope appears to have been substantially complete by the end of 2001 and I have taken that into account when considering weathertightness performance as the original wall and roof claddings are now some 16 years old being one year past the minimum 15-year durability period required by Clause B2.3.1. The expert has investigated roof and wall claddings to the apartments and found their installation and performance generally satisfactory.
- 8.1.5 The building consent for the apartments included removal of original walkway soffit linings and all interior wall and ceilings, which would have exposed any existing timber damage to the original framing. From April to July 2013, the authority recorded at least six inspections of firewalls, infill external framing and internal framing, with no record that any moisture or timber damage was revealed. The authority's inspections in 2013 together with the expert's investigations found no evidence of significant past moisture ingress or timber damage.
- 8.1.6 I concur with the expert's opinion in his initial and addendum reports that there is 'reasonable evidence that parts of the existing building on which the new construction depends for weathertightness have performed adequately to date' and will continue to do so with normal maintenance. The expert has identified a number of general maintenance items (refer paragraph 5.5.3) and specific items noted as "C" in Table 1 (refer paragraph 6.2.2).
- 8.1.7 I consider that the apartment alterations largely satisfy Clauses B2 Durability and E2 External moisture, however, for the provisions of section 115(a) to be met the items of maintenance that relate to the apartment alterations identified by the expert in paragraph 5.5.3 need to be addressed along with the remedial items identified in Table 1. I consider these matters need to be addressed to ensure that the building work on which the apartment alterations rely complies with the Building Code as near as is reasonably practicable.

8.2 The Fire Safety Clauses: the new firewall between the pool area and Apartment 1

- 8.2.1 In his initial report, the expert assessed the condition of the firewall between the pool and Apartment 1 and found the firewall to be sound with the framing in good condition. The expert also noted that the wall had been inspected and passed by the authority during the apartment alteration work in 2013.
- 8.2.2 In his addendum report, the expert confirmed the above, but also agreed with the authority that the junction of the firewall with the underside of the mezzanine pool plant room floor required attention in regard to a small area of missing fire-rated lining and the penetration of a redundant pipe through a floor joist in the same area. As noted in paragraph 7.2.8, the firewall is a new building element installed under the apartment alterations and is required to fully comply.

¹⁵ Paragraph 3 of Acceptable Solution E2/AS1 provides a method of assessing the weathertightness risk of a building's envelope based on environmental factors, and building features and complexity. The assessment results in a risk score that can range from "low" to "very high".

8.2.3 The authority is of the view that another "few areas" of the firewall need to be addressed. I leave this to the parties to resolve.

8.3 The pool area generally

- 8.3.1 The authority's initial concerns were in relation to the impact of any non-compliance in the original building work on the compliance of the work completed for the apartment alterations. The expert's assessment has considered the compliance of the exterior envelope on the apartment alterations as above, but the authority's remaining area of concern is the compliance of the pool area.
- 8.3.2 The expert assessed the remaining pool/gym area and, although noting some defects as outlined in paragraph 5.4.2, formed the opinion these defects had no adverse impact on the compliance of the work completed under the apartment alterations.
- 8.3.3 In his addendum report, the expert reported on his additional investigations into the areas identified in the authority's photo file as summarised in Table 1 (item 1b). The additional investigations confirmed the above.

9. What is to happen now?

- 9.1 The authority may issue a notice to fix that requires the applicant to bring the building work into compliance with the Building Code or issue another notice under section 95A taking into account the findings of this determination.
- 9.2 Either notice should refer to the defects and maintenance items identified in paragraphs 8.1.7 and 8.2.2, and any further defects that might be discovered in the course of investigation and rectification of that work, but not specify how those defects are to be fixed that is a matter for the applicant to propose and for the authority to accept or reject.

10. The decision

In accordance with section 188 of the Building Act 2004, I hereby confirm the authority's decision to refuse to issue the code compliance certificate in respect of building consent No. ABA-2012-1577 (also known as BCO10076156) in respect of the defects to the fire-rated wall between the pool area and Apartment 1, and items of maintenance identified herein.

Signed for and on behalf of the Chief Executive of the Ministry of Business, Innovation and Employment on 12 September 2018.

Katie Gordon Manager Determinations

Appendix A: The legislation

A.1 Building (Specified Systems, Change the Use, and Earthquake-prone Buildings) Regulations 2005:

5 Change the use: what it means

For the purposes of sections 114 and 115 of the Act, change the use, in relation to a building, means to change the use (determined in accordance with regulation 6) of all or a part of the building from one use (the old use) to another (the new use) and with the result that the requirements for compliance with the building code in relation to the new use are additional to, or more onerous than, the requirements for compliance with the building code in relation to the old use.

6 Uses of buildings for purposes of regulation 5

- (1) For the purposes of regulation 5, every building or part of a building has a use specified in the table in Schedule 2.
- (2) A building or part of a building has a use in column 1 of the table if (taking into account the primary group for whom it was constructed, and no other users of the building or part) the building or part is only or mainly a space, or it is a dwelling, of the kind described opposite that use in column 2 of the table.

Schedule 2 Uses of all or parts of buildings

Uses related to sleeping activities								
Use	Spaces or dwellings	Examples						
SR (Sleeping Residential)	attached and multi-unit residential dwellings, including household units attached to spaces or dwellings with the same or other uses, such as caretakers' flats, and residential accommodation above a shop	multi-unit dwellings, flats, or apartments						
Uses related to working, business, or storage activities								
Use	Spaces or dwellings	Examples						
CS (Crowd Small) enclosed spaces (without kitchens or cooking facilities) where 100 or fewer people gather for participating in activities		cinemas (with qualifying spaces), art galleries, auditoria, bowling alleys, churches, clubs (non-residential), community halls, court rooms, dance halls, day-care centres, gymnasia, lecture halls, museums, eating places (excluding kitchens), taverns, enclosed grandstands, indoor swimming pools						

A.2 The relevant sections of the Building Act 2004 include:

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,—
 - (a) ...
 - (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.

115 Code compliance requirements: change of use

An owner of a building must not change the use of the building,—

(a) in a case where the change involves the incorporation in the building of 1 or more household units where household units did not exist before, unless the territorial authority gives the owner written notice that the territorial authority is satisfied, on reasonable grounds, that the building, in its new use, will comply, as nearly as is reasonably practicable, with the building code in all respects; ...