

28 June 2024

Fin Mat Partners

by email

Attention: Richard Walker-Randall

Damage Causation Report	
Insured:	Body Corporate 209549
Address:	Units 27 & 28, 595 Laurie Southwick Parade, Gulf Harbour, Auckland
Insurer:	QBE Insurance
Insurer Reference	FC426769
Building Consultant	Stephen Walker & Colin Rundle
ASURNZ Reference	ANZ1552
Revision	A

1.0 Background and General

ASURNZ Ltd have been engaged by Fin Mat Partners on behalf of QBE Insurance to undertake an assessment of residential properties located at Units 27 & 28, 595 Laurie Southwick Parade, Gulf Harbour, Auckland. The properties are reported to have been affected by a storm on or around early May 2023 (Event).

During the Event the Insured has reported there was a rainwater leak in the roof of Unit 28 resulting in water ingress to the bedroom/conservatory on the third storey of the dwelling. A roof inspection in December 2023 identified broken roof tiles and damaged pointing to the roof tile capping in the same area. These damages were repaired in January 2024 and the Insured reports that no further water ingress has been apparent in the bedroom/conservatory on the third storey since those repairs were completed.

However, moisture damage has been discovered in the bathrooms on the ground floor level of Unit 27 and Unit 28, including on either side of the fire-rated intertenancy wall. The damage discovered in Unit 28 also extends to the adjoining bedroom and laundry area on the ground floor.

Subsequently, there is concern that the moisture damage to the ground floor walls of both Units has occurred because of the initial water ingress from the Event, and further, that the water ingress may be ongoing as the ground floor bathroom walls are still quite damp and surface water appears on the bathroom floors during or immediately after rain events.

2.0 Instructions & Scope

As instructed by Richard Walker-Randall of Fin Mat Partners, we are to undertake and report on the following items:

1. Conduct a site investigation to determine the cause and extent of damage.
2. Provide a summary of damage and causation.
3. Advise on any further investigation requirements or proposed next steps.

3.0 Site Inspection

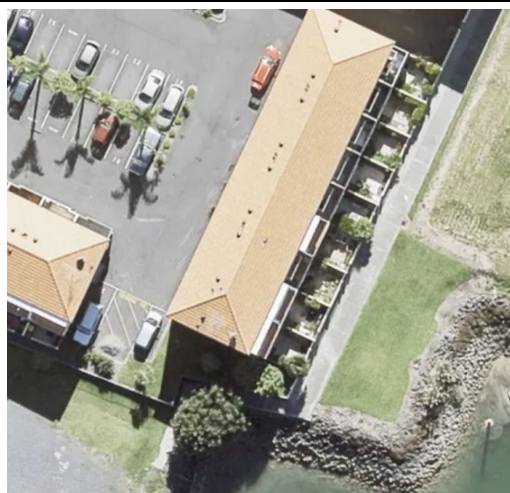
Inspections of the property occurred on 30th May 2024 and 7th June 2024.

The following persons were present during the inspections:

- Catherine McGrath (Owner of Unit 27)
- Colleen Synott (Owner of Unit 28)
- Stephen Lawn (Building Manager) – during 1st inspection only
- Richard Walker-Randall (Fin Mat Partners) – during 1st inspection only
- Colin Rundle (ASURNZ)
- Stephen Walker (ASURNZ)

4.0 Property Description

Property type:	Residential dwellings – apartment block
Approximate age of building:	2002
Legal description:	Unit 27 and Accessory Unit 27 Deposited Plan 209549; and Unit 28 and Accessory Unit 28 Deposited Plan 209549
Council:	Auckland Council
Construction – External Walls:	Texture coated fibre cement sheet cladding over timber framing.
Construction – Roof:	Clay tile roofing over timber framing.
Construction Floor/Foundations:	Concrete on grade with suspended timber floors to upper levels.
General Condition:	Good
Other Features:	Exposed deck on first floor level over habitable ground floor area in Unit 27. Infill conservatory in place of upper-level decks in Unit 28.



4.1 Aerial view of the Property



4.2 Front view of the Property

5.0 Damage Description/Investigation

At the time of our inspection some portions of wall linings had been removed in the ground floor bathrooms of both Units, allowing visible inspection of the wall framing. There had also been a heavy rain event in the days immediately preceding our first inspection.

Observations

Exterior

- 5.1. The junction between the jamb flashings and conservatory joinery on the first-floor level of Unit 28 appears misaligned with separation visible between the flashing and joinery.
- 5.2. There is vertical cracking to the exterior wall cladding immediately below the sill of the conservatory joinery on the first-floor level of Unit 28 close to the intertenancy wall with Unit 27 and behind the downpipe. The cracking opens wider towards the upper end and tapers to a hairline crack as it extends downwards. The crack is the full depth of the fibre cement sheet cladding.
- 5.3. There is no movement control joint formed in the exterior cladding between the ground floor sections of Unit 27 & 28.
- 5.4. The rainwater heads on the ground floor level of the dwelling are poorly mounted to the exterior wall allowing surface water to penetrate behind.
- 5.5. The exterior cladding below the bathroom window on Unit 28 was damp to the touch when compared with other nearby cladding surfaces and returned a high moisture level reading. The cladding is also discoloured at the base with efflorescence visible on the surface of the concrete foundation below.
- 5.6. There is over 100 mm separation between the base of the cladding and the finished ground level.

Internal – Ground Floor Bathroom, Unit 27

- 5.7. The bottom plate of the exterior wall framing in the bathroom on the ground floor level of the dwelling has been replaced with timber treated to meet H3.2 Hazard Class requirements. The exposed timbers have water stain marks but no fungal growth or decay present. The timber returns an elevated moisture content reading.
- 5.8. The intertenancy wall is of double frame construction. Approximately 1 metre away from the junction with the exterior wall the bottom plate of the intertenancy wall appears to be untreated radiata pine framing which is what was originally installed as advised by the Building Manager. This timber has an elevated moisture content and displays incidences of fungal growth and timber decay in several places further along the wall towards the shower unit.
- 5.9. The bottom plate of the intertenancy wall on the Unit 28 side of the wall returns a significantly higher moisture content reading than that of the bottom plate on the Unit 27 side of the wall.
- 5.10. The plasterboard wall lining on the Unit 28 side of the intertenancy wall approximately 1.5 metres away from the exterior wall displays water staining, fungal growth and timber decay spreading upwards from the floor level. There is no visual evidence of water ingress from above such as staining that might occur from water tracking down the wall.

Internal – Level 2 Bedroom, Unit 28

- 5.11. The window reveals of the conservatory window joinery have water stain markings. The reveals, ceiling and wall linings appear dry despite recent heavy rain.
- 5.12. The Owner of Unit 28 has supplied photos taken during the Event showing water leaking from the light fitting on the back wall of the conservatory area in the bedroom and water leaking from the window reveals at the top of the conservatory joinery.

Internal – Ground Floor Bathroom & Laundry, Unit 28

- 5.13. The bottom plate of the exterior wall framing in the bathroom has been replaced with timber treated to meet H3.2 Hazard Class requirements. The exposed timbers have water stain marks but some fungal growth present but no obvious sign of timber decay. The timber and wall linings return highly elevated moisture content readings.
- 5.14. The door reveals and wall framing beside the shower unit at the opposite end of the bathroom from the external wall are severely decayed, as is the carpet edge strip.
- 5.15. The wall linings of the bedroom wall that backs on to the bathroom return highly elevated moisture content readings within 1 metre of the external wall.
- 5.16. The kitchenette and laundry area that backs on to the bathroom (behind the shower unit) displays evidence of decay in the timber skirting and returns elevated moisture content readings at the base of the wall linings.
- 5.17. The timber framing between the kitchenette and the laundry is severely decayed at the base.
- 5.18. The concrete floor of the kitchenette is damp to the touch.

6.0 Photos



6.1 Overview of the Units with areas of concern arrowed.



6.2 Open flashing junction beside window joinery



6.3 Cracking in exterior cladding



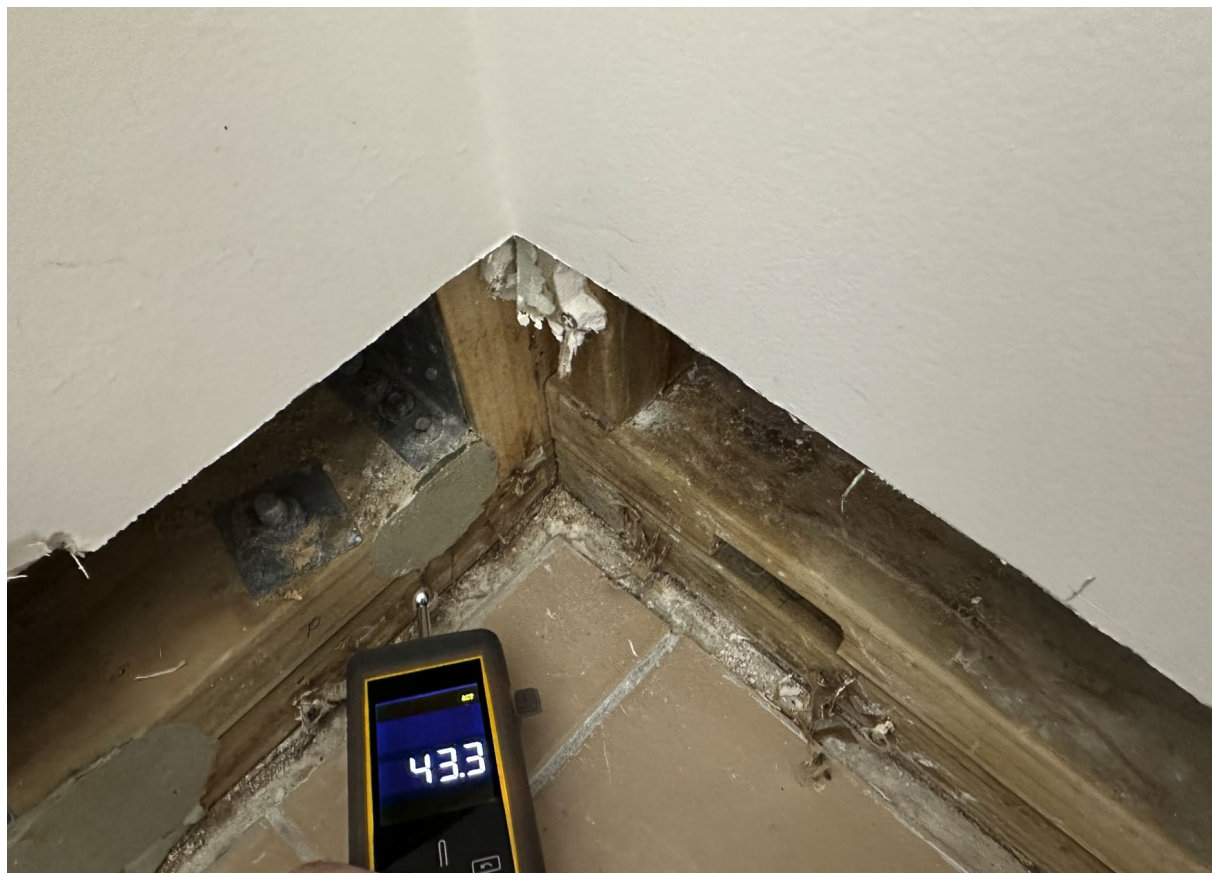
6.4 Poor sealing around rainwater head



6.5 Cladding beneath bathroom window in Unit 28 showing efflorescence and staining



6.6 High moisture reading at cladding base



6.7 Elevated moisture reading of framing in Unit 27 bathroom exterior wall



6.8 Change in framing along intertenancy wall between Unit 27 and Unit 28



6.9 Slightly elevated moisture content in bottom plate on Unit 27 side of intertenancy wall



6.10 Highly elevated moisture content in bottom plate on Unit 28 side of intertenancy wall



6.11 Fungal growth and timber decay in the bathroom intertenancy wall



6.12 No visible water staining from above evident within the intertenancy wall cavity



6.13 Overview of Level 2 Bedroom window joinery in Unit 28



6.14 Moisture damage to window reveals (now dry) as viewed through Level 2 Bedroom window



6.15 Image provided by Owner of Unit 28 showing water leak to Level 2 Bedroom wall during Event.



6.16 Image provided by Owner of Unit 28 showing water leak to Level 2 Bedroom joinery during Event



6.17 Overview of Ground Floor Bathroom in Unit 28 facing towards external wall



6.18 Overview of Ground Floor Bathroom in Unit 28 facing away from external wall



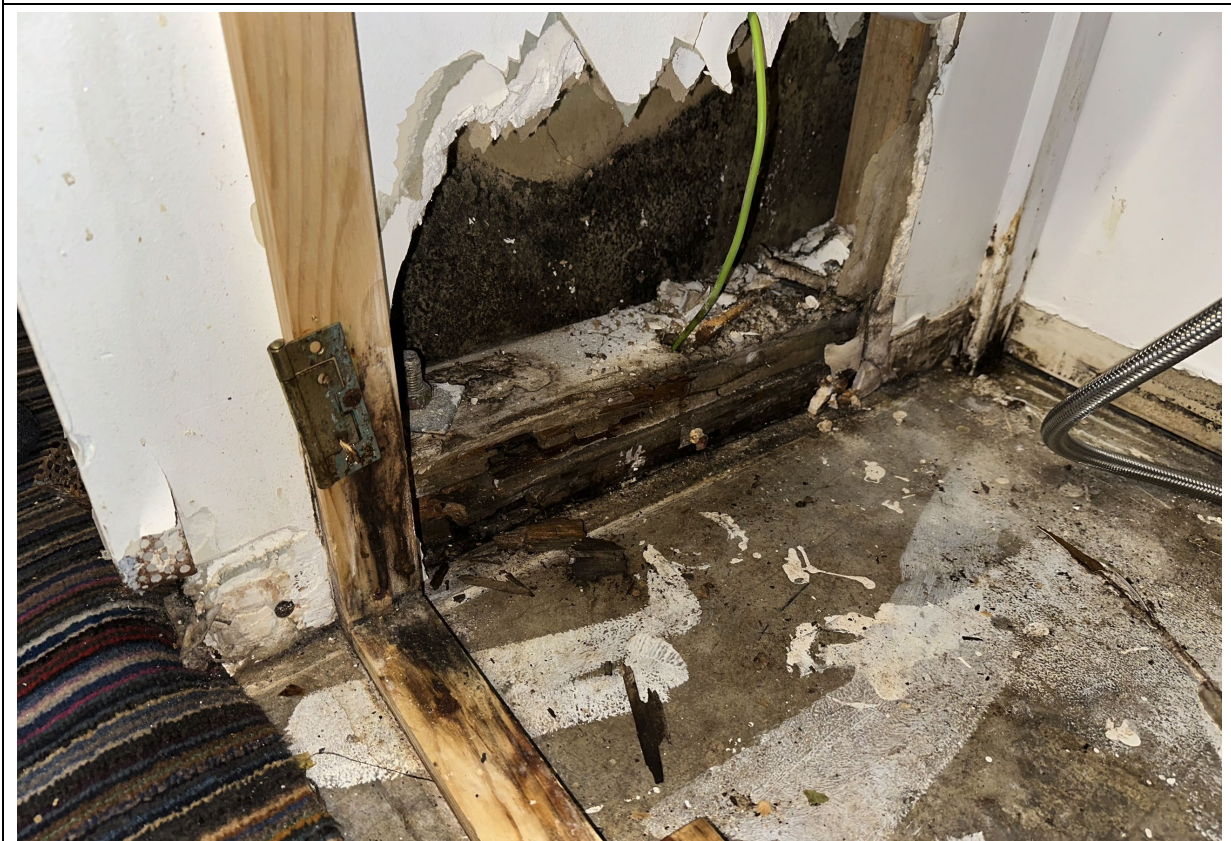
6.19 Highly elevated moisture content reading in external wall of Unit 28 Ground floor Bathroom



6.20 Timber decay in door reveal and carpet edging near shower end of Unit 28 Ground Floor Bathroom



6.21 Overview of Kitchenette backing onto bathroom in Unit 28



6.22 Close up of timber decay in framing between Laundry and Kitchenette in Unit 28

7.0 Assessment

In preparing this assessment, along with our on-site inspection, we have also considered information available from:

- Property file records provided by Auckland Council.
- A Roofing report prepared by Slate and Tile Roofing and provided to the Building Manager on or around March 2024.
- A report prepared by Grayburn Property Services dated 21/03/2024 as provided to the Building Manager.
- Reports prepared by Dryscan dated 10/01/2024 and 24/05/2024 as provided to the owners of Unit 27 and Unit 28 respectively.
- Information available from invoices provided by Plumbquick Plumbers dated 26/06/2023 and 28/05/2024 including a follow up discussion by phone with the plumber during the latter attendance to site.

Level 2 Bedroom, Unit 28

It is our assessment that the damage to the window reveals and wall surfaces in the Bedroom is resultant damage due to water ingress from a roof leak as occurred during the storm event in May 2023.

Considering that there has been no further water ingress into the bedroom since roof repairs were completed in January 2024, and no evidence of ongoing moisture ingress to this area observed during our inspections, it is our assessment that the leak is most likely attributed to the cracked roof tiles and cracked capping pointing as discovered during planned maintenance, and further, that the leak to this area is no longer likely to be occurring.

Ground Floor, Unit 27 & Unit 28

The ongoing incidences of moisture ingress to the ground floor areas of both Units post January 2024 indicates the cause is not likely to be the roof leak that had existed above the level 2 Bedroom in Unit 28. Also, the level of decay present in the timber framing indicates moisture ingress over a much longer term, most likely measured in years.

From our inspections, and also inspections undertaken by the plumber during the course of confirming that there were no ongoing plumbing leaks in the bathroom and laundry walls, it has been determined that the moisture ingress to the ground floor areas of both Units is due to leaks in the exterior cladding directly above the bathrooms. This was further confirmed by the plumber who sprayed water over the cladding defects and then observed some of that water entering the bathroom of Unit 28 above the window then tracking down to the bottom plate of the wall framing and onto the bathroom floor.

There are two cladding defects providing points of entry for rainwater. The first defect is where the junction between the first-floor conservatory joinery and jamb flashing has opened up allowing water to penetrate beside the window joinery and track down to the framing below. The second defect is the cracking of the cladding immediately below the defective window joinery junction. Both defects result in water passing through the building envelope and into the framing of the exterior wall directly beside the intertenancy wall. From there the water pools and spreads across the bathroom floor in Unit 28, into the kitchenette and laundry area and into the bathroom in Unit 27 as is observed from the recorded moisture content readings and spread of fungal growth and timber decay laterally along the base of the walls and wall linings.

The cladding defects are due to poor design and poor construction. This is because the nature of a double framed intertenancy wall and separately framed structures as exist in this apartment building, requires that movement control joints be provided between Units, particularly where the wall cladding is expected to span between Units. In this case there are no movement control joints between Unit 27 and Unit 28 which has led to the cracking of the cladding and separation of the joinery/flashing junction as the structures of the Units move independently of each other during long term settlement of the supporting ground.

Given the level of decay present in the untreated timber framing and timber skirting, the staining of the exterior cladding and incidence of efflorescence over the foundation, it is evident that the leaking has been ongoing for a prolonged period, most likely measured in years, and certainly beginning long before the storm event in May 2023. In this regard the defects are a pre-existing condition, as is the resultant damage which has occurred gradually over a prolonged period and is not the result of a sudden event.

Proposed next steps

We recommend that immediate action is taken to remedy the construction defects in the exterior cladding as identified in this report. If these defects are not addressed water ingress will continue to occur leading to further degradation of the structure and elevated risk to the health and safety of the occupants.

We trust that this report provides a sufficient level of detail. Should you have any questions or require further clarification, please contact us.

Kind regards,



Stephen Walker

Principal Consultant

☎ +64 21 943 825

✉ swalker@asurnz.com