

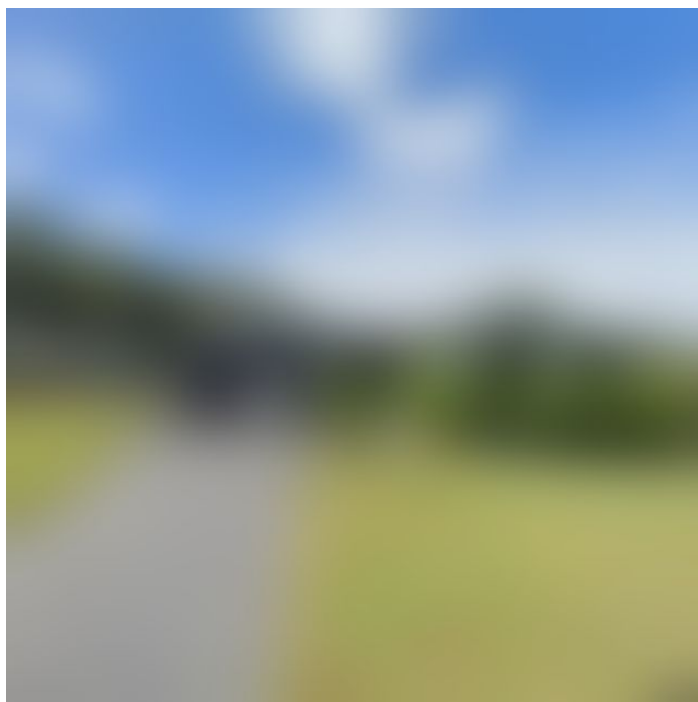


OWNER INSPECTIONS

1300 471 805

booking@ownerinspections.com.au

<https://www.ownerinspections.com.au/>



INVESTIGATION REPORT

Sample Property

Sample Property

Name withheld

09/06/2026

Inspector

Craig Palmer

1300 471 805

booking@ownerinspections.com.au

TABLE OF CONTENTS

1: + Inspection Details	14
2: + Inspection Summary Notes	49

Inspection Agreement

1. This is an Agreement between you, the undersigned Client, and us, Owner Inspections.
2. If there is more than one Client, you are signing on behalf of all of you, and you represent that you are authorised to do so.
3. The purpose of the Dilapidation Inspection and Report is to provide a visual assessment and provide in-writing regarding the condition of the Property at the date and time of Inspection.
4. The Report is based on the condition of the inspected Property at the date and time of Inspection. While the Inspection and Report were conducted and prepared with the possible care, still some access limitation and safety hazards can limit the Inspector's ability to detect all defects. These limits and safety items are defined in the standards.
5. This Report does not include the identification of unauthorised building work or work not compliant with building/council regulations. The Report does not include identification of the municipality regulations and requirements as well as identification of design defects for the construction. According to the Standards, the estimate of the costs of the rectifications is not required in this Report.
6. The Dilapidation Report is prepared based on the visual findings and assessment of the Inspector at the date and time of the Inspection on the general condition of the inspected Property. The Report will not guarantee to include all defects.
7. We do not perform engineering, architectural, plumbing, or any other job function requiring an occupational licence in the jurisdiction where the Property is located.
8. Checking Legal matters, building contract, design, easements, local council restrictions and requirements, crossovers, Strata title, boundaries, connections, building envelope, planning and building permits, setbacks and zonings are out of this Inspection and Report scope of work.
9. The Report will not include defects that may only be apparent in certain weather conditions or defects that have not yet appeared due to prolonged periods of wet or dry weather or other reasons.
10. An inspector shall only inspect areas where safe and unobstructed access provided. Reasonable access is defined in AS4349.1-2007 and this Agreement. Reasonable access does not include removing stored material/goods, nails, screws, cutting or making access hole, and moving furniture.
11. We will not test for the presence of radon, a harmful gas, mould, presence of asbestos, soil contamination, or other environmental hazards or violations.
12. The Report does not identify the presence of pests or any damage caused by pests (e.g. termites, borers, etc.).
13. The Inspection is not intended to include rigorous assessment of all building elements in a property.

14. If you request a re-Inspection, the re-Inspection is subject to the terms of this Agreement and re-Inspection fee.

15. The Report will be based on the Inspector's assessment on major defects and safety hazards evident and visually visible on the date and time of the Inspection.

16. Limitation on Liability and Damages: We are not liable for any cost of repair or replacement of unreported defects, either current or arising in the future. In all cases, our liability is limited to liquidated damages in an amount not greater than 1.5 times the fee you paid us. You waive any claim for consequential, exemplary, special or incidental damages or the loss of the use of the home/building. You acknowledge that these liquidated damages are not a penalty, but that we intend it to: (i) reflect the fact that actual damages may be difficult or impractical to ascertain; (ii) allocate risk between us; and (iii) enable us to perform the Inspection for the agreed-upon fee.

17. Our Inspection and Report are for your use only. You will be the sole owner of the Report and all rights to it. We are not responsible for the use or misinterpretation by third parties, and third parties who rely on it in any way do so at their own risk and release us (including employees and business entities) from any liability whatsoever. You are not allowed to send/show our Report and/or a quotation to our market competitors. If Owner Inspections realise that our competitor has/saw our Report belonging to you and your Property, we have the right to take legal action to retrieve damages. If you or any person acting on your behalf provide the Report to a third party who then sues you and/or us, you release us from any liability and agree to pay our costs and legal fees in defending any action naming us. Our Inspection and Report are in no way a guarantee or warranty, express or implied, regarding the future use, operability, habitability or suitability of the home/building or its components. We disclaim all warranties, express or implied, to the fullest extent allowed by law.

18. If a court declares any provision of this Agreement invalid, the remaining provisions remain in effect. This Agreement represents our entire Agreement; there are no terms other than those set forth herein. All prior discussions are merged into this Agreement. No statement or promise by us shall be binding unless reduced to writing and signed by one of our authorised officers. Any modification of this Agreement must be in writing and signed by you and by one of our authorised officers. This Agreement shall be binding upon and enforceable by the parties and their heirs, executors, administrators, successors and assignees. You will have no cause of action against us after six months from the date of the Inspection.

19. If a court finds any term of this Agreement ambiguous or requiring judicial interpretation, the court shall not construe that term against us because of the rule that any ambiguity in a document is construed against the party drafting it. You had the opportunity to consult qualified legal advice before accepting this Agreement.

20. You may not assign this Agreement.

21. BY BOOKING THE INSPECTIONS, YOU CONFIRM THAT YOU HAVE CAREFULLY READ THIS

AGREEMENT. YOU AGREE TO IT AND ACKNOWLEDGE RECEIVING A COPY OF IT.

Purpose of Inspection

This Report highlights the existing condition of a property at the date and time of inspection. It documents the existing damage of that property or infrastructure, and the state of any aspects of that property that might be affected by the construction work, excavation or demolition which is set to take place.

Conditions of Inspection

An Inspection Report may be conditional on:

Prevailing weather conditions or recent occupancy and use of services that might affect observations; Information provided by the Client or the agents of the Client; Deliberate concealment of defects; Any other relevant factor limiting the Inspection.

Scope of Inspection

The Inspection shall comprise a visual assessment of the Property to identify major defects and to form an opinion regarding the general condition of the Property at the time of Inspection. An estimate of the cost of rectification of defects is not required in an Inspection report in accordance with this Standard.

Inspection Records

The Inspector shall record the following information prior to, or during the course of the Inspection: Identity of the Inspector undertaking the Inspection; Identity of the Client; The address of the Property inspected; Date of Inspection; Weather conditions at the time of the Inspection; Limitations of Inspection with respect to the accessible area; Observation of defects.

Areas for Inspection

The Client shall arrange right of entry, facilitate physical access to the property and supply necessary information to enable the Inspector to undertake the Inspection and prepare a report. The Inspector is not responsible for arranging access to Property or parts of the Property. Areas where reasonable entry is denied to the Inspector, or where reasonable access is not available, are excluded and do not form part of, the Inspection.

The Inspector shall inspect accessible parts of the building and appurtenances, together with the relevant feature of the Property and within the boundaries of the site, or as otherwise agreed in the Inspection Agreement. In this context, relevant features include car accommodation, detached laundry, ablution facilities and garden sheds, retaining walls more than 700 mm high, paths and driveways, steps, fencing, earth embankments, surface water drainage and stormwater run-off.

The following areas shall be inspected where applicable: The interior of the building; The exterior of the building.

Significant items to be reported are as follows:

(a) Major defects.

(b) A general impression regarding the extent of minor defects, for example, significantly deteriorating exterior paint.

(c) Any major defect that is an urgent and serious safety hazard, for example, unsafe balustrades or imminent collapse of a structural member.

Items to be inspected where applicable:

Internal and external walls, doors, windows, chimney, fences, gutters and downpipes, roofing, driveway and pathways.

Exclusion of items from Inspection (Appendix D):

(a) Footings below ground; (b) Concealed damp-proof course; (c) Electrical installations, operation of smoke detectors, light switches and fittings, TV, sound and communications and security systems; (d) Concealed plumbing; (e) Adequacy of roof drainage as installed; (f) Gas fittings and fixtures; (g) Airconditioning; (h) Automatic garage door mechanisms; (i) Swimming pools and associated filtration and similar equipment; (j) The operation of fireplaces and solid fuel heaters, including chimneys and flues; (k) Alarm systems; (l) Intercom systems; (m) Soft floor coverings; (n) Electrical appliances including dishwashers, incinerators, ovens, ducted vacuum systems; (o) Paint coatings, except external protective coatings; (p) Health hazards (e.g., allergies, soil toxicity, lead content, radon, presence of asbestos or urea-formaldehyde); (q) Timber and metal framing sizes and adequacy; (r) Concealed tie-downs and bracing; (s) Timber pest activity; (t) Other mechanical or electrical equipment (such as gates, inclinators); (u) Soil conditions; (v) Control joints; (w) Sustainable development provisions; (x) Concealed framing-timbers or any areas concealed by wall linings/sidings; (y) Landscaping; (z) Rubbish; (aa) Floor cover; (bb) Furniture and accessories; (cc) Stored items; (dd) Insulation; (ee) Environmental matters (e.g., BASIX, water tanks, BCA Environmental Provisions); (ff) Energy efficiency; (gg) Lighting efficiency.

Safe and reasonable access

The extent of accessible areas shall be determined by the Inspector at the time of Inspection,

based on the conditions encountered at the time of Inspection. The Inspector shall also determine whether sufficient space is available to allow safe access. The Inspection shall include only accessible areas and areas that are within the Inspector's line of sight and close enough to enable reasonable appraisal. Reasonable access shall be determined as below:

Access Limitation:

The Inspector will conduct a non-invasive visual Inspection which will be limited to those accessible areas and sections of the Property to which Safe and Reasonable Access is both available and permitted on the date and time of the Inspection. Areas where reasonable entry is denied to the Inspector, or where safe and reasonable access is not available, are excluded from and do not form part of, the Inspection. Those areas may be the subject of an additional Inspection upon request following the provision or reasonable entry and access.

The Inspection excludes the inside of walls, between floors, inside skillion roofing, inside the eaves, behind stored goods in cupboards, and other areas that are concealed or obstructed. The Inspector will not dig, gouge, force or perform any other invasive procedures.

When the inspector will report the access limitations/restrictions, a re-inspection should be booked (extra charge applies) to complete the inspection and report within 14 days.

Examples of access limitations:

The legal right of entry, locked doors/windows, security systems, pets, furniture or other Obstructions, Height, narrow boundary clearances, thick vegetation, small roof or crawl space, adverse weather conditions. The Report shall identify any area or item within the scope of the Inspection that was not inspected and the factor that prevented Inspection.

Definitions:

Access hole (cover): An opening in flooring or ceiling or other parts of a structure (such as service hatch, removable panel) to allow for entry to carry out an Inspection, maintenance or repair.

Accessible area: An area of the site where sufficient, safe and reasonable access is available to allow Inspection within the scope of the Inspection.

Building element: Portion of a building that, by itself or in combination with other such parts, fulfils a characteristic function.

Client: The person or other entity for whom the Inspection is being carried out.

Defect: Fault or deviation from the intended condition of a material, assembly, or component.

Inspection: Close and careful scrutiny of a building carried out without dismantling, in order to arrive at a reliable conclusion as to the condition of the building.

Inspector: Person who is responsible for carrying out the Inspection.

Limitation: Any factor that prevents full or proper Inspection of the building.

Major defect: A defect of sufficient magnitude where rectification has to be carried out in order to avoid unsafe conditions, loss of utility or further deterioration of the Property.

Defect: Fault or deviation from the intended condition of a material, assembly, or component.

Minor defect: A defect other than a major defect.

Serviceability defect: Fault or deviation from the intended serviceability performance of a building element.

Structural defect: Fault or deviation from the intended structural performance of a building element.

Structural element: Physically distinguishable part of a structure; for example, wall, columns, beam, connection.

Subfloor space: Space between the underside of a suspended floor and the ground.

Roof space: Space between the roof covering and the ceiling immediately below the roof covering.

Site: Allotment of land on which a building stands or is to be erected.

TYPES OF CRACKING DEFECT

Determining defect: Cracking in a building element may constitute a defect in a variety of ways. In many cases a particular cracking occurrence may result in more than one type of defect. For example, a particular crack might at the same time be a structural defect, a serviceability defect and an appearance defect.

Appearance defect: Cracking of a building element is an appearance defect where in the opinion of the Inspector the only present or expected consequence of the cracking is that the appearance of the element is blemished.

Serviceability defect: Cracking of a building element is a serviceability defect where in the opinion of the Inspector the present or expected consequence of the cracking is that the function of the building element is impaired.

Examples of serviceability defects resulting from cracking are as follows:

- (a) Windows or doors not opening and closing properly.
- (b) Water leakage occurs through a building element, which otherwise should not allow water entry.

Structural defect: Cracking of a building element is a structural defect where in the opinion of the Inspector the present or expected consequence of the cracking is that the structural performance of the building element is impaired, or where the cracking is the result of the structural behaviour of the building.

The criteria for determining whether cracking is a structural defect are not solely related to

crack width. Cracks 0.1 mm wide may be a structural defect while cracks 5.0 mm wide may

not be structural defects. Cracking in a structural element does not necessarily indicate a structural defect.

Cracks:

If cracks have been identified in the table below, then A Structural Engineer is required to determine the significance of the cracking. Regardless of the appearance of the cracks, a Building Inspector carrying out the Inspection within the scope of a visual inspection is unable to determine the expected consequences of the cracks.

Other Inspections:

It is Strongly Recommended that the following Inspections and Reports be obtained prior to commencement of construction:

- Council Plan Inspection
- Electrical Inspection
- Plumbing Inspection
- Timber Pest Inspection
- Structural (Engineer)
- Geotechnical Inspection
- Swimming Pool Inspection
- Drainage Inspection
- Asbestos Inspection
- Mould Inspection
- Gas fitting Inspection
- Appliances Inspection
- Air-conditioning Inspection
- Alarm/Intercom/Data Systems
- Hydraulics Inspection
- Mechanical Services
- Hazards Inspection
- Fire/Chimney Inspection

- Estimating Report
- Garage Door Mechanical
- Durability of Exposed Surfaces

Strata Title and Easements: Strata title and easement are out of the scope of this Report. It is strongly recommended that an Land Surveying and Report on these areas be obtained prior to commencement of building/extension.

Other Notes:

In the case of strata and company title properties, the Inspection is limited to the interior and immediate exterior of the particular unit being inspected. The exterior above ground floor level is not inspected. The complete Inspection of other common property areas would be the subject of a Special-Purpose Inspection Report which is adequately specified.

Trees: Where trees are too close to the house this could affect the performance of the footing as the moisture levels change in the ground. A Geotechnical Inspection can determine the foundation material and provide advice on the best course of action with regards to the trees.

The septic tanks: Should be inspected by a licensed plumber.

Swimming Pools: Swimming Pools/Spas are not part of the Standard Building Report under AS4349.1-2007 and are not covered by this Report. We strongly recommend a pool expert should be consulted to examine the pool and the pool equipment and plumbing as well as the requirements to meet the standard for pool fencing. Failure to conduct this Inspection and put into place the necessary recommendations could result in fines for non-compliance under the legislation.

Surface Water Drainage: The retention of water from surface runoff could have an effect on the foundation material which in turn could affect the footings to the house. The best practice is to monitor the flow of surface water and stormwater runoff and has the water directed away from the house or to stormwater pipes by a licensed plumber/drainier.

Important Information Regarding the Scope and Limitations of the Inspection and this Report

Important Information Any person who relies upon the contents of this Report does so acknowledging that the following clauses, which define the Scope and Limitations of the Inspection, form an integral part of the Report.

This Report is NOT an all-encompassing report dealing with the building from every aspect. It is a reasonable attempt to identify any obvious or significant defects apparent at the time of the Inspection. Whether or not, a defect is considered significant or not depends to a large extent, upon the age and type of the building inspected. This Report is not a Certificate of Compliance with the requirements of any Act, Regulation, Ordinance

or By-law. It is not a structural report. Should you require any advice of a structural nature you should contact a structural engineer.

THIS IS A VISUAL INSPECTION ONLY limited to those areas and sections of the Property fully accessible and visible to the Inspector on the date of Inspection. The Inspection DID NOT include breaking apart, dismantling, removing or moving objects including, but not limited to, foliage, mouldings, roof insulation/ sisalation, floor or wall coverings, sidings, ceilings, floors, furnishings, appliances or personal possessions. The Inspector CAN NOT see inside walls, between floors, inside skillion roofing, behind stored goods in cupboards and other areas that are concealed or obstructed. The Inspector DID NOT dig, gouge, force or perform any other invasive procedures. Visible timbers CAN NOT be destructively probed or hit without the written permission of the property owner.

This Report does not and cannot make comment upon: defects that may have been concealed; the assessment or detection of defects (including rising damp and leaks) which may be subject to the prevailing weather conditions; whether or not services have been used for some time prior to the Inspection and whether this will affect the detection of leaks or other defects (eg. In the case of shower enclosures the absence of any dampness at the time of the Inspection does not necessarily mean that the enclosure will not leak); the presence or absence of timber pests; gas- fittings; common property areas; environmental concerns; the proximity of the Property to flight paths, railways, or busy traffic; noise levels; health and safety issues; heritage concerns; security concerns; fire protection; site drainage (apart from surface water drainage); swimming pools and spas (non-structural); detection and identification of illegal building work; detection and identification of illegal plumbing work; durability of exposed finishes; neighbourhood problems; document analysis; electrical installation; any matters that are solely regulated by statute; any area(s) or item(s) that could not be inspected by the consultant.

Accordingly, this Report is not a guarantee that defects and/or damage do not exist in any inaccessible or partly inaccessible areas or sections of the Property. (NB: Such matters may upon request be covered under the terms of a Special-purpose Property Report.)

CONSUMER COMPLAINTS PROCEDURE: In the event of any dispute or claim arising out of, or relating to the Inspection or the Report, you must notify Us within 7 days from the inspection date by email. You must allow Us (which includes persons nominated by Us) to visit the property (which visit must occur within twenty-eight (28) days of your notification to Us) and give Us full access in order that We may fully investigate the complaint. You will be provided with a written response to your dispute or claim within twenty-eight (28) days of the date of the Inspection.

If You are not satisfied with our response You must within twenty-one (21) days of Your receipt of Our written response refer the matter to a Mediator nominated by Us from the Institute of Arbitrators and Mediators of Australia. The cost of the Mediator will be borne equally by both parties or as agreed as part of the mediated settlement.

Should the dispute or claim not be resolved by mediation then the dispute or claim will proceed to arbitration. The Institute of Arbitrators and Mediators of Australia will appoint an Arbitrator who will hear and resolve the dispute. The arbitration, subject to any

directions of Arbitrator, will proceed in the following manner: The parties must submit all written submissions and evidence to the Arbitrator within twenty-one (21) days of the appointment of the Arbitrator, and The arbitration will be held within twenty-one (21) days of the Arbitrator receiving the written submissions.

The Arbitrator will make a decision determining the dispute or claim within twenty-one (21) of the final day of the arbitration. The Arbitrator may, as part of his determination, determine what costs, if any, each of the parties are to pay and the time by which the parties must be paid any settlement or costs.

The decision of the Arbitrator is final and binding on both parties. Should the Arbitrator order either party to pay any settlement amount or costs to the other party but not specify a time for payment then such payment shall be made within twenty-one (21) days of the order.

In the event You do not comply with the above Complaints Procedure and commence litigation against Us then You agree to fully indemnify Us against any awards, costs, legal fees and expenses incurred by Us in having your litigation set aside or adjourned to permit the foregoing Complaints Procedure to complete.

ASBESTOS DISCLAIMER: "No inspection for asbestos was carried out at the Property and no report on the presence or absence of asbestos is provided. If during the course of the Inspection asbestos or materials containing asbestos happened to be noticed, then this may be noted in the Additional Comments section of the Report. Buildings built prior to 1982 may have a wall and/or ceiling sheeting and other products including roof sheeting that contains Asbestos. Even buildings built after this date up until the early 90s may contain some Asbestos. The sheeting should be fully sealed. If concerned or if the building was built prior to 1990 or if asbestos is noted as present within the Property, then you should seek advice from a qualified asbestos removal expert as to the amount and importance of the asbestos present and the cost of sealing or removal. Drilling, cutting or removing sheeting or products containing Asbestos is a high risk to people's health. You should seek advice from a qualified asbestos removal expert."

MOULD (MILDEW AND NON-WOOD DECAY FUNGI) DISCLAIMER: Mildew and non-wood

decay fungi are commonly known as Mould. However, Mould and its spores may cause health problems or allergic reactions such as asthma and dermatitis in some people. No inspection for Mould was carried out at the Property and no report on the presence or absence of Mould is provided. If in the course of the Inspection, Mould happened to be noticed it may be noted in the Additional Comments section of the Report. If Mould is noted as present within the Property or if you notice Mould and you are concerned as to the possible health risk resulting from its presence then you should seek advice from your local Council, State or Commonwealth Government Health Department or a qualified expert such as an Industry Hygienist.

MAGNESITE FLOORING DISCLAIMER: No inspection for Magnesite Flooring was carried out at the Property and no report on the presence or absence of Magnesite Flooring is provided. You should ask the owner whether Magnesite Flooring is present and/or seek advice from a Structural Engineer.

DISCLAIMER OF LIABILITY: No Liability shall be accepted on an account of the failure of the Report to notify any problems in the area(s) or section(s) of the subject property physically inaccessible for Inspection, or to which access for Inspection is denied by or to the Inspector (including but not limited to or any area(s) or section(s) so specified by the Report).

CONTACT THE INSPECTOR

Please feel free to contact the Inspector who carried out this Inspection. Often it is very difficult to fully explain situations, problems, access difficulties, building faults or their importance in a manner that is readily understandable by the reader. Should you have any difficulty in understanding anything contained within this Report then you should immediately contact the Inspector and have the matter explained to you. If you have any questions at all or require any clarification, then contact the Inspector prior to acting on this Report.

 1.3.1 + Inspection Details - + Views: + General views of the property at the time of the inspection

1: + INSPECTION DETAILS

Information

+ **General: Occupancy**
Furnished

+ **General: How Many Levels?**
Single Storey

+ **General: Weather Conditions**
Heavy Rain

+ **General: External Building Material**
Brick Veneer, Render, Tiles

+ **General: Type of Building**
Residential, House

+ **General: Roof**
Tiled

+ General: In Attendance

Client



front of the property from the roadside



minor water staining and small mould marks to the children's playroom / bedroom at the front of the house



ceilings in the children's play bedroom appear to be letting go at the fixings this is consistent with water ingress from the roof space

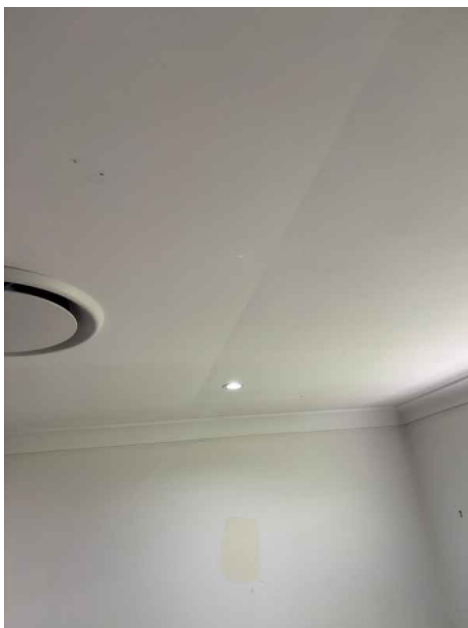


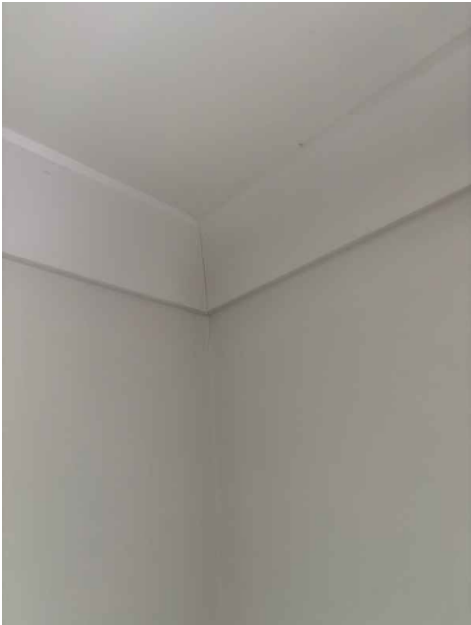
evidence of staining into the Cornice ceiling junction













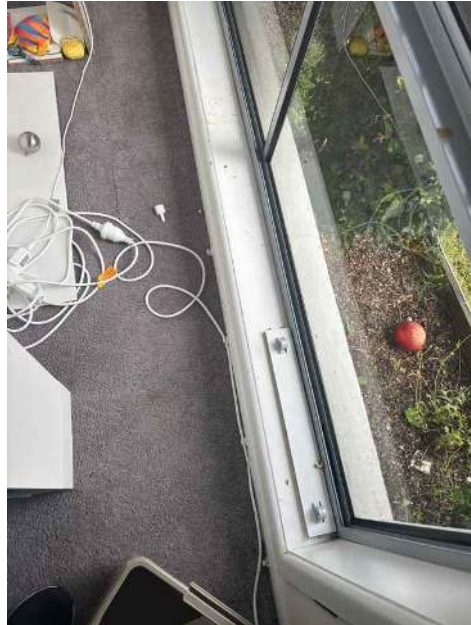




partial electrical fit off has been completed in the children's bedroom number two however this all requires a second inspection and test due to water ingress and removal and reinstatement to facilitate ceiling replacement



this image is in the second children's bedroom back from the front of the property these ceilings have just been replaced under an insurance claim however the roof has continued to leak whilst the insureds are out of the property causing these ceilings to fail the ceilings now require complete replacement again there are elevated moisture readings across the ceiling space



this window is at the front of the property in the children's bedroom. The window exhibits high moisture levels towards the centre and around the frames. This is likely to be a combination of ingress from the roofline and ingress forced by vegetation growing so close to the window and the front facade of the building. The window is examined externally and found to be lacking silicone sealant around its perimeter. The windows have recently been replaced, however finishing works including silicone have not been completed.



various locations within the roof cavity show water staining and mould build up to the backs of the gyproc seats on the ceiling. This includes the ceilings that have been recently replaced, indicating that a leak was still occurring after they were conducted.



there is no sacking or anticon insulation within the roof cavity So the roof is solely reliant on the tiles to shed water during rain events Obstructions in the drainage tiles combined with the solar brackets being silicone into place has led to additional ingress



the main roof trusses have water stain marks in various locations across the front elevation of the property The locations of all these marks coincide with the locations of the solar brackets that were affixed to the roof but have now been removed



this is the front bedroom the children's room at the front of the house This has recently been replastered and painted as part of the insurance works and now the ceiling has wet and shows signs of moisture ingress again



photograph was taken in the ceiling cavity of the front children's bedroom there is evidence of mould and water staining to the timber trusses that support the main roof structure this is consistent with water ingress that has been left the

+ Views: Insurance investigation Report

BUILDING DEFECT, WATER INGRESS AND MOULD ASSESSMENT REPORT

Property address: Sample Property

Client: Name withheld

Inspection undertaken by: Owner Inspections

****Inspection date:**** 9/6/26

****Weather at inspection:**** Heavy rain occurred during or around the inspection period

****Building type:**** Single-storey residential dwelling

****Roof construction:**** Pitched, tiled roof

****Report purpose:**** Assessment of reported roof water ingress, consequential internal damage, elevated moisture and mould contamination, together with a recommended rectification scope of works.

1. Instructions

As requested, a representative of Owner Inspections attended the property and conducted a visual and non-destructive site assessment with the homeowner present.

The purpose of the inspection was to:

1. Review the reported history of roof water ingress.
2. assess the effectiveness of the current temporary make-safe tarping;
3. identify visible and measurable internal moisture damage;
4. consider the reported relationship between the solar mounting brackets, subsequent silicone repairs and recurring water ingress;
5. assess the extent of incomplete and subsequently damaged internal repairs;
6. identify areas requiring further invasive investigation;
7. provide an opinion regarding the likely sequence and mechanism of damage; and
8. prepare a recommended scope of works for permanent roof rectification, mould remediation and internal reinstatement.

This report is a building assessment and rectification document. It is not an engineering certification, electrical certificate, occupational hygiene clearance, building approval or determination of insurance policy coverage or legal liability.

2. Executive Summary

The property is a single-storey residential dwelling with a tiled roof and roof-mounted solar panel system. At the time of inspection, the roof was substantially covered by temporary make-safe tarping. The tarping had reportedly been installed approximately two weeks before the inspection.

Due to the extent of the tarping, the tiled roof, solar mounting brackets, flashing details, tile channels and associated penetrations could not be directly examined in sufficient detail. No active internal water entry was identified during the inspection despite heavy rainfall. This indicates that the temporary tarping was successfully preventing further rainwater from entering the affected roof areas at the time of inspection. It does not demonstrate that the underlying roof defects have been permanently rectified.

The homeowners advised that the original source of ingress had been attributed to penetrations or mounting points associated with the solar panel brackets. A contractor was subsequently engaged through the insurance repair process to apply silicone sealant around the brackets.

The homeowners further advised that water ingress increased or reoccurred following the silicone works. The reported mechanism is technically plausible. Roof tiles are designed to shed water through their formed profiles, side channels, watercourses and interlocking drainage paths. Applying large or incorrectly positioned beads of silicone around a solar mounting bracket can obstruct these drainage paths. Water may then pond or back up behind the sealant, migrate laterally across the tile profile and be forced beneath adjoining tiles.

Silicone should not be relied upon as the primary weatherproofing system where it interrupts the intended water-shedding function of the roof tile. Solar mounting penetrations must be detailed as part of a complete roof system, with suitable brackets, flashings, tile clearances and drainage paths that remain open and functional.

Bedrooms 2 and 3 had previously undergone internal repair works. These works reportedly included electrical disconnection, removal and replacement of ceiling linings and cornices, and repainting. The occupants temporarily vacated the property while these works were undertaken. Upon returning, they discovered that the roof was still leaking and that the newly completed work had been damaged.

Elevated moisture readings were recorded at multiple locations throughout Bedrooms 2, 3 and 4 and within the wider kitchen, dining and living areas. Available imagery from within the roof space also showed apparent mould growth on or around roof trusses in locations corresponding with the reported leaks.

The kitchen ceiling had reportedly been included for replacement under the original insurance scope. However, trades abandoned or suspended the work and had not returned to complete the repairs at the time of inspection. The observed moisture and mould-affected area appeared to extend beyond the previously assessed kitchen ceiling area.

It cannot presently be determined whether all damage within the kitchen, dining and living area was present and overlooked during the original assessment, or whether part of the damage developed following the later recurrence of roof ingress. Comparison with the original inspection photographs, moisture records, repair scopes, trade reports and completion records will be required.

Elevated moisture was also identified within the wall area of Bedroom 4, used as the children's playroom. This room appears to have been affected by moisture migration or water entry associated with the continuing roof leak. Given the duration and recurrence of moisture exposure, concealed mould growth within ceiling, wall or insulation cavities must be considered likely until invasive inspection proves otherwise.

The internal lining and painting works should not recommence until:

- * the roof has been exposed and comprehensively inspected;
- * the solar mounting and roof penetration defects have been permanently rectified;
- * the completed roof repairs have passed controlled water testing;
- * mould-contaminated and water-damaged materials have been removed;
- * the roof and wall cavities have been dried;
- * the timber roof structure and concealed building elements have been assessed;
- * moisture readings have returned to an acceptable and stable range; and
- * an independent occupational hygienist or suitably qualified environmental consultant has provided written clearance.

3. Property Description

The property comprises a single-storey residential dwelling understood to be a Class 1a building.

The inspected areas included:

- * Bedroom 2;
- * Bedroom 3;
- * Bedroom 4, used as a children's playroom;
- * kitchen;
- * dining area;
- * living area;

- * accessible adjoining areas; and
- * accessible portions of the roof space through supplied or available imagery.

The roof is constructed using profiled concrete or terracotta roof tiles over timber roof framing. A photovoltaic solar panel system is mounted above the roof using proprietary rails and brackets connected through or around the tiled roof covering.

The exact tile manufacturer, roof pitch, sarking arrangement, bracket type, fixing method, flashing system and solar installation details could not be confirmed while the roof remained covered by tarpaulins.

4. Background and Reported Sequence of Events

Based on information provided by the homeowners, the following sequence was reported:

1. Water ingress was initially identified within the dwelling.
2. The initial source was reportedly attributed to solar mounting brackets or penetrations associated with the solar panel installation.
3. A contractor was engaged through the insurance builder to attend the roof.
4. Silicone sealant was applied around the solar mounting brackets.
5. Following these works, further or increased water ingress was identified.
6. The later ingress was reportedly attributed to silicone obstructing the roof tile water-shedding channels.
7. Bedrooms 2 and 3 underwent internal repairs while the occupants temporarily vacated the property.
8. These works included electrical disconnection, ceiling and cornice replacement and repainting.
9. The occupants returned and discovered that the roof continued to leak.
10. The newly repaired ceilings and finishes were subsequently damaged.
11. Work to the kitchen ceiling was commenced or planned but was not completed.
12. Continuing moisture exposure resulted in elevated moisture readings across additional rooms and apparent mould growth within the roof space.
13. Temporary make-safe tarping was installed over the roof.
14. The tarping had remained in place for approximately two weeks at the time of inspection.
15. No active ingress was identified during heavy rainfall while the temporary tarping remained intact.

This sequence is based partly on statements made by the homeowners and should be cross-checked against dated photographs, builder records, contractor reports, work orders and insurance documentation.

5. Inspection Methodology

The assessment included:

- * visual inspection of accessible internal rooms;
- * visual examination of ceilings, cornices and wall finishes;
- * non-invasive moisture screening at multiple locations;
- * review of available roof-space imagery;
- * consideration of the reported repair history;
- * assessment of the relationship between observed internal damage and reported roof leak locations; and
- * assessment of the current temporary make-safe performance during wet weather.

No roof tiles, ceiling linings, wall linings, insulation or solar panels were removed during this inspection.

No controlled hose testing, flood testing, electrical testing, destructive opening-up, mould sampling, air sampling, structural testing or laboratory analysis was undertaken.

6. Inspection Limitations

6.1 Roof access and tarping

The principal limitation was the temporary tarping covering the roof. It prevented detailed inspection of:

- * solar mounting brackets;
- * tile cuts around brackets;
- * flashing components;
- * silicone location and thickness;
- * tile side channels and watercourses;
- * cracked or displaced tiles;
- * bracket fixing points;
- * tile underlaps and overlaps;
- * condition and continuity of roof sarking;
- * water staining beneath individual penetrations; and
- * the precise relationship between the solar mounting system and roof framing.

The conclusions concerning the silicone and solar brackets must therefore be treated as a technically plausible preliminary opinion requiring confirmation after the tarping and solar panels are removed or locally lifted.

6.2 Moisture readings

Moisture meters provide an indication of elevated moisture but do not independently determine the source, age or precise moisture content of every substrate. Readings may be influenced by concealed metallic objects, electrical cables, salts, substrate density and surface coatings.

The readings must be interpreted together with visible staining, roof-space evidence, repair history and invasive inspection.

6.3 Mould identification

Visible fungal-like growth and supplied imagery are consistent with mould contamination. No laboratory sampling or species identification was undertaken. Species identification is generally less important to rectification than identifying and stopping the moisture source, removing contaminated porous materials, cleaning retained structural elements and verifying that the area is dry and acceptably remediated.

6.4 Concealed damage

Additional damage may be concealed within:

- * ceiling cavities;
- * wall cavities;

- * insulation;
- * timber framing;
- * electrical fittings;
- * light penetrations;
- * air-conditioning penetrations;
- * cabinetry junctions; and
- * areas above or behind fixed kitchen joinery.

The final scope must remain subject to controlled opening-up and hygienist direction.

7. Inspection Findings

7.1 Temporary roof make-safe

The roof was covered by extensive temporary tarping. No active internal ingress was located during the inspection despite heavy rain.

The absence of active ingress under these conditions supports the conclusion that the temporary tarp was functioning as an effective short-term weather barrier at the time of inspection.

The tarp is not a permanent repair and should be inspected and maintained until the underlying defect is rectified. Temporary coverings can deteriorate, loosen or be damaged by wind and should not remain in place longer than reasonably necessary.

7.2 Solar mounting brackets and reported original leak source

The homeowners advised that solar mounting brackets had previously been identified as the original leak source.

Solar brackets installed through a tiled roof must be integrated with the tile profile without compromising the roof's intended water-shedding paths. Potential defects can include:

- * poorly positioned bracket penetrations;
- * excessive or irregular tile cutting;
- * cracked tiles;
- * brackets bearing directly on tile edges;
- * inadequate clearances;
- * missing or unsuitable flashing;
- * fasteners penetrating outside appropriate structural support;
- * damaged or discontinuous sarking;
- * inadequate upslope water diversion; and
- * reliance on exposed sealant instead of durable mechanical flashing.

These matters could not be confirmed while the roof remained tarped.

7.3 Silicone obstructing tile drainage channels

The homeowners reported that silicone was later applied around the solar brackets and that this was subsequently identified as a cause of further ingress.

A profiled roof tile does not drain only across its upper face. It relies on formed waterways and interlocking side channels to collect and direct incidental water downslope.

A large silicone bead placed across these channels can create a small dam. During rainfall:

1. water travels down the tile toward the bracket;
2. the silicone obstructs the intended downslope pathway;
3. water accumulates behind the silicone;
4. the backed-up water spreads sideways;
5. water reaches tile laps, cuts or open bracket clearances;
6. water passes beneath the tiles;
7. water lands on the sarking or enters through damaged sarking;
8. water tracks along battens, trusses, services or ceiling framing; and
9. water eventually reaches ceiling and wall linings.

Exposed silicone is also susceptible to ageing, ultraviolet exposure, movement, contamination and loss of adhesion. Even where silicone initially slows water entry, it is not an adequate substitute for correctly detailed roof tiles, flashings and proprietary mounting components.

7.4 Bedrooms 2 and 3

Bedrooms 2 and 3 had reportedly been internally repaired before the roof defect was permanently resolved and verified.

The repairs reportedly included:

- * electrical disconnection;
- * removal of ceiling linings;
- * removal of cornices;
- * installation of replacement ceiling linings;
- * installation of replacement cornices; and
- * repainting.

Following the occupants' return, further ingress occurred and the repaired areas were damaged.

Elevated moisture readings were recorded at multiple locations. The extent of damage indicates that the completed finishes cannot simply be spot repaired without first investigating the ceiling cavity, insulation, framing and concealed surfaces.

Where plasterboard has been repeatedly wetted, remained damp for an extended period or become mould affected, removal and replacement is generally more appropriate than surface cleaning and repainting.

7.5 Bedroom 4 – children's playroom

High moisture readings were identified in a wall area within Bedroom 4.

This room had not necessarily been included within the same original repair scope as Bedrooms 2 and 3. The moisture indicates that water has either:

- * entered above the room;

- * migrated laterally through the roof or ceiling cavity;
- * tracked down framing;
- * entered the wall cavity; or
- * spread from an adjoining affected area.

Due to the concealed wall construction, selective removal of wall lining will be required to determine:

- * the extent of wet insulation;
- * whether mould is present on the rear of plasterboard;
- * whether timber framing is affected;
- * whether electrical cabling or outlets have been exposed to moisture; and
- * whether the bottom plate, skirting or floor junction has been affected.

7.6 Kitchen, dining and living areas

The kitchen ceiling was reportedly approved or identified for replacement during the original claim. The works were not completed, and trades had not returned at the time of inspection.

The observed moisture and mould impact appeared to extend beyond the originally identified kitchen ceiling area and into the surrounding open-plan space.

At present, it cannot be reliably determined whether:

- * the full extent existed but was missed during the original assessment;
- * damage expanded while the roof remained defective;
- * secondary water ingress occurred after the silicone works;
- * damage occurred during more than one leak event; or
- * a combination of these factors applies.

The original assessment documents and photographs should be obtained and compared with current conditions.

Given the open-plan construction and the extent of the reported moisture, replacement of isolated ceiling patches may produce inconsistent joints, variable finish levels and continuing uncertainty about concealed contamination. Subject to hygienist findings, full ceiling replacement across the affected open-plan kitchen, dining and living area is recommended.

7.7 Roof-space mould

Available roof-space imagery showed apparent mould growth on timber roof trusses in locations associated with the reported water entry.

Mould growth on roof framing indicates that moisture remained present long enough to support microbial activity. The presence of mould does not automatically mean the trusses have lost structural capacity; however, the framing must be examined for:

- * timber decay;
- * softening;
- * delamination;
- * splitting;
- * persistent elevated moisture;
- * corrosion of truss plates and fasteners;

- * staining that remains active or wet; and
- * evidence of repeated wetting.

No truss member, connector plate or bracing element should be cut, drilled, planed, sanded aggressively or altered without approval from the truss manufacturer or a suitably qualified structural engineer.

7.8 Electrical considerations

Water has entered or remained within areas containing electrical fittings and wiring. All affected circuits and fittings must be assessed by a licensed electrician.

Potentially affected items include:

- * light fittings;
- * ceiling fans;
- * smoke alarms;
- * junction boxes;
- * wiring connections;
- * recessed lighting transformers or drivers;
- * air-conditioning components; and
- * photovoltaic wiring or isolators.

Electrical isolation must occur before ceiling removal or mould remediation begins.

8. Causation Assessment

8.1 Original ingress

Based on the homeowner's account, the original ingress was associated with the solar mounting brackets or roof penetrations.

This is plausible because roof-mounted solar installations require physical interaction with the tiled roof system. Incorrect bracket positioning, tile cutting, flashing or penetration detailing can create direct pathways for water entry.

Direct confirmation requires removal of the tarp and detailed inspection.

8.2 Secondary ingress

The reported application of silicone around the brackets provides a credible mechanism for secondary or aggravated ingress where the sealant obstructed tile watercourses or drainage channels.

On the information currently available, it is reasonable to conclude that incorrectly positioned silicone may have:

- * prevented water draining freely downslope;
- * caused local ponding;
- * redirected water laterally;
- * forced water beneath tile overlaps; and
- * increased water entry into the roof cavity.

8.3 Failure of the repair sequence

Internal reinstatement appears to have occurred before the roof had been permanently rectified and proven weather-tight.

The appropriate repair sequence should have been:

1. identify the source;
2. complete permanent roof repairs;
3. test and verify the roof repair;
4. remove wet and contaminated materials;
5. dry and remediate the structure;
6. obtain clearance;
7. reinstate ceilings, walls and finishes; and
8. complete final testing and inspection.

Completing new ceilings and painting while the roof remained defective exposed the replacement work to foreseeable recurrent damage.

8.4 Mould development

The mould contamination is consistent with recurrent or prolonged moisture exposure, delayed drying and concealed wet porous materials.

The precise date of mould development cannot be established from visual inspection alone. However, the combination of elevated moisture, repeated leaks and visible roof-space growth demonstrates that cleaning visible room surfaces alone will not provide an adequate rectification.

8.5 Kitchen and wider open-plan damage

There is presently insufficient evidence to apportion all kitchen, dining and living damage between the original leak and later ingress.

The current physical extent should be rectified regardless of whether it arose from:

- * the original event;
- * the unsuccessful silicone repair;
- * the period before tarping;
- * incomplete drying; or
- * a combination of events.

Apportionment should be addressed through review of dated records rather than by limiting the physical remediation scope.

9. Compliance and Technical Framework

The rectification works should be undertaken in accordance with the NCC edition legally applicable to the work, Queensland legislation, relevant Australian Standards, manufacturer requirements, approved engineering details and

good trade practice.

The following references are relevant.

9.1 National Construction Code

- * NCC Volume Two, applicable to Class 1 and Class 10 buildings.
- * Performance Requirement H2P2 – Weatherproofing.
- * Deemed-to-Satisfy provision H2D6 – Roof and wall cladding.
- * H1D7 – roof and wall cladding structural provisions where applicable.
- * ABCB Housing Provisions, Part 7 – Roof and wall cladding.
- * Applicable energy-efficiency and insulation provisions where insulation is removed or replaced.
- * Applicable requirements for structural adequacy, health, amenity and condensation or moisture management.

The fundamental weatherproofing requirement is that the roof system must prevent water penetration that could cause unhealthy or dangerous conditions, loss of amenity, deterioration of building elements or damage to occupants' property.

9.2 Roof tiles and roof weatherproofing

- * AS 2049 – Roof tiles.
- * AS 2050:2018 – Installation of roof tiles.
- * AS 4200.2:2017, including applicable amendments – Pliable building membranes and underlays, installation.
- * Roof tile manufacturer's installation manual.
- * Solar mounting-system manufacturer's installation requirements.
- * Sealant manufacturer's substrate preparation, joint design and application requirements.
- * AS/NZS 1170.2:2021, including amendments – Wind actions, where mounting systems, bracket spacing or structural fixings are being assessed or altered.

9.3 Solar and electrical work

- * AS/NZS 5033:2021 – Installation and safety requirements for photovoltaic arrays.
- * AS/NZS 3000:2018, including amendments – Electrical installations.
- * AS/NZS 3012:2019, including amendments – Electrical installations on construction and demolition sites.
- * Electrical Safety Act and Electrical Safety Regulation applicable in Queensland.
- * Clean Energy Council or relevant accreditation requirements applying to the solar contractor and installation.

9.4 Plasterboard and internal linings

- * AS/NZS 2589:2017, including amendments – Gypsum linings, application and finishing.
- * Plasterboard manufacturer's installation requirements.
- * Minimum Level 4 finish unless a higher finish is specified.
- * Back-blocking requirements for ceiling joints and large ceiling areas.
- * Required control joints, perimeter details, fixing centres and adhesive application.
- * Appropriate ceiling-board thickness and span rating for the framing arrangement.

9.5 Painting

- * AS/NZS 2311:2017, including Amendment 1 – Guide to the painting of buildings.

- * Paint manufacturer's preparation, primer, recoat, film-build and curing requirements.
- * Coatings suitable for the substrate and environmental exposure.
- * Mould-resistant systems where recommended, noting that mould-resistant paint is not a substitute for removal of contamination and correction of the moisture source.

9.6 Mould remediation and work health and safety

- * Work Health and Safety Act 2011.
- * Work Health and Safety Regulation 2011.
- * How to Manage Work Health and Safety Risks Code of Practice.
- * ANSI/IICRC S520 – Standard for Professional Mould Remediation.
- * Occupational hygienist's site-specific remediation protocol.
- * Appropriate respiratory protection, containment, HEPA filtration, decontamination and waste-handling procedures.

9.7 Demolition and hazardous materials

- * AS 2601:2025 – The demolition of structures, where applicable to the removal methodology.
- * Queensland asbestos codes of practice.
- * Pre-demolition hazardous-material assessment where the building age or material history creates a reasonable possibility of asbestos-containing material, lead paint or other hazardous substances.
- * No suspected material is to be disturbed until appropriately assessed.

10. RECOMMENDED SCOPE OF WORKS

10.1 Preliminary documentation and investigation

1. Obtain and review:

- * original insurance assessment;
- * original scope of works;
- * roof reports;
- * solar installation documentation;
- * photographs taken before and during earlier repairs;
- * moisture readings;
- * trade reports;
- * invoices and work orders;
- * completion records; and
- * any previous mould or hygiene reports.

2. Prepare a photographic condition report before disturbing the roof or internal finishes.

3. Engage:

- * a suitably licensed builder;
- * a licensed roof tiler;
- * a licensed solar electrician or accredited solar contractor;
- * a licensed electrician;

- * a professional mould-remediation contractor;
- * an independent occupational hygienist or environmental consultant; and
- * a structural engineer where framing damage or solar mounting adequacy is in question.

4. Confirm whether building approval, certification or aspect certificates are required for the proposed roof, structural or solar works.

5. Confirm the age and composition of existing ceiling, wall and cornice materials.

6. Complete asbestos and hazardous-material testing before demolition where the age or history of the dwelling warrants it.

10.2 Site establishment and occupant protection

1. The occupants should remain out of the active work zones during demolition and mould remediation.

2. Install secure temporary site fencing and warning signage where required.

3. Establish exclusion zones beneath roof and ceiling work.

4. Protect all retained floors, cabinetry, benchtops, windows, doors, fixtures and appliances.

5. Provide heavy-duty floor protection comprising:

- * clean protective sheeting;
- * taped joints;
- * impact-resistant board to traffic routes; and
- * sealed protection around kitchen and fixed cabinetry.

6. Remove loose furniture, toys, bedding, curtains and personal items from the affected rooms.

7. Inventory, photograph and carefully transport furniture and contents to secure off-site storage.

8. Do not move visibly mould-contaminated contents through unaffected areas without appropriate wrapping and hygienist direction.

9. Establish clean and contaminated access routes.

10. Isolate or seal air-conditioning supply and return openings serving contaminated work zones.

10.3 Electrical and solar isolation

1. Engage a licensed electrician to identify all circuits serving the affected areas.

2. Isolate and make safe all electrical fittings before ceiling or wall removal.

3. Disconnect and remove as required:

- * lights;
- * fans;
- * smoke alarms;
- * recessed fittings;
- * transformers and drivers;
- * ceiling-mounted sensors;
- * air-conditioning grilles or components; and
- * other ceiling-mounted equipment.

4. Test fittings and cabling exposed to water or elevated moisture.

5. Replace components that cannot be certified as safe.

6. Engage a suitably qualified solar contractor to electrically isolate the photovoltaic system before solar panel or bracket work.

7. Provide temporary construction power and electrical protection in accordance with site electrical requirements.

8. On completion, reconnect, test and commission all electrical and solar systems.

9. Provide electrical certificates and solar commissioning records where required.

10.4 Controlled exposure of the roof

1. Undertake roof opening only during a suitable dry-weather window.

2. Provide temporary emergency coverings capable of being immediately reinstated.

3. Remove or temporarily relocate solar panels as required to gain full access to each mounting bracket and surrounding roof tiles.

4. Remove the tarping progressively rather than exposing the full roof at once.

5. Photograph every solar bracket before removing silicone, tiles or flashings.

6. Record:

- * bracket position;
- * fixing type;
- * bracket spacing;
- * supporting framing;
- * tile cuts;
- * cracked tiles;
- * silicone location;

- * drainage-channel obstruction;
- * flashing details;
- * sarking condition; and
- * evidence of historical water tracking.

10.5 Permanent roof and solar bracket rectification

1. Remove all inappropriate silicone that obstructs tile channels or conceals defective detailing.
2. Remove and replace cracked, chipped, excessively cut or otherwise damaged roof tiles.
3. Confirm that each mounting bracket is connected to an adequate structural support.
4. Confirm bracket and rail spacing against:
 - * mounting-system engineering;
 - * panel manufacturer requirements;
 - * site wind classification; and
 - * applicable structural design actions.
5. Replace or reposition non-compliant brackets.
6. Install proprietary flashing components compatible with:
 - * the roof tile profile;
 - * bracket system;
 - * roof pitch;
 - * anticipated water flow;
 - * sarking; and
 - * local wind exposure.
7. Maintain unobstructed tile waterways and side channels around all brackets.
8. Ensure tiles do not bear on brackets in a manner likely to cause cracking.
9. Ensure tile cuts are neat and no larger than necessary.
10. Repair or replace damaged sarking using compatible materials and properly detailed laps.
11. Install upslope diversion flashing where required by the mounting system or roof configuration.
12. Seal only those joints intended by the proprietary flashing system.
13. Do not bridge or dam a tile drainage channel with silicone.
14. Ensure any sealant used:

- * is compatible with adjoining materials;
- * is installed over properly prepared surfaces;
- * is protected where required;
- * does not act as the sole primary weatherproofing detail; and
- * does not interfere with drainage.

15. Reinstall roof tiles, clips, fixings and pointing in accordance with the tile manufacturer and AS 2050.

16. Reinstall solar panels and rails after completion of roof works.

17. Check cable support, isolation, earthing, labelling and protection.

10.6 Roof testing and hold point

Internal reinstatement must not commence until the roof repair has been verified.

Testing should include:

1. visual inspection of every repaired mounting point;
2. photographic record beneath and above each bracket;
3. inspection of sarking repairs;
4. controlled hose testing in manageable roof sections;
5. testing commencing at lower roof areas and progressing upslope;
6. observation from within the roof space during testing;
7. inspection of penetrations, laps and adjacent tiles;
8. follow-up inspection after natural rainfall where practicable; and
9. written confirmation from the responsible contractor that the repaired roof is weather-tight.

****Hold Point 1:**** No mould remediation or internal reinstatement is to progress beyond emergency strip-out until the permanent roof repair has passed inspection and testing.

10.7 Hygienist assessment and remediation plan

1. Engage an independent occupational hygienist or suitably qualified environmental consultant before major demolition.

2. The hygienist is to:

- * inspect all affected rooms;
- * inspect the roof space;
- * identify remediation boundaries;
- * determine containment requirements;
- * identify materials requiring removal;
- * specify drying criteria;

- * determine whether air or surface sampling is necessary;
- * provide a written remediation plan; and
- * establish post-remediation verification requirements.

3. The remediation plan should address Bedrooms 2, 3 and 4 and the kitchen, dining and living areas, including connected roof and wall cavities.

4. Adjacent areas are to be inspected for cross-contamination.

10.8 Mould containment

1. Restrict access to the work zones.
2. Install floor-to-ceiling containment sheeting with sealed edges.
3. Establish negative air pressure where directed by the hygienist.
4. Use HEPA-filtered air-scrubbing equipment.
5. Seal air-conditioning ducts and grilles within contaminated zones.
6. Provide a controlled entry and decontamination area where required.
7. Workers are to use suitable PPE, including:
 - * fit-checked P2 or higher respiratory protection as assessed;
 - * gloves;
 - * eye protection;
 - * disposable coveralls; and
 - * protective footwear or covers.
8. Do not dry sweep, use domestic vacuum cleaners or use compressed air.
9. Use H-class or suitable HEPA-filtered extraction equipment.

10.9 Removal of affected materials

Remove and dispose of, subject to the hygienist's remediation boundaries:

- * damaged ceiling plasterboard;
- * previously repaired ceiling plasterboard that has been re-wetted;
- * water-damaged cornices;
- * mould-contaminated wall plasterboard;
- * wet or mould-contaminated insulation;

- * contaminated ceiling debris;
- * affected paper-faced products;
- * damaged cardboard packaging;
- * porous materials that cannot be effectively cleaned and dried; and
- * other materials nominated by the hygienist.

Materials are to be carefully removed to minimise dust and spore dispersal.

Contaminated materials are to be wrapped or bagged before being removed from containment.

The builder is to provide lawful transport and disposal of waste.

10.10 Ceiling and wall opening-up

Bedroom 2

- * Remove the complete ceiling lining.
- * Remove the complete cornice.
- * Remove all wet or contaminated insulation.
- * Open affected wall areas where moisture readings or staining indicate concealed damage.
- * Inspect roof trusses, battens, framing, electrical services and wall top plates.
- * Extend removal until clean and dry material is reached.

Bedroom 3

- * Remove the complete ceiling lining.
- * Remove the complete cornice.
- * Remove all wet or contaminated insulation.
- * Open affected wall areas where required.
- * Inspect all concealed building elements.
- * Extend removal until clean and dry material is reached.

Bedroom 4

- * Remove the complete ceiling where confirmed within the remediation boundary.
- * Remove the complete cornice.
- * Undertake controlled removal of the moisture-affected wall lining.
- * Inspect the wall cavity, insulation, timber framing, electrical services, bottom plate and floor junction.
- * Extend wall-lining removal beyond the visible or meter-indicated boundary as directed by the hygienist.

Kitchen, dining and living area

- * Remove the complete affected open-plan ceiling rather than isolated patches, subject to final hygienist confirmation.
- * Remove the cornice throughout the affected open-plan area.
- * Remove wet or contaminated insulation.
- * Protect fixed cabinetry and appliances.

- * Temporarily remove overhead cabinetry, trims or fittings where required to achieve full ceiling removal and reinstatement.
- * Inspect roof framing, services, bulkheads and ceiling areas concealed above cabinetry.
- * Open affected walls where staining, moisture or mould is identified.

10.11 Roof truss and timber remediation

1. Assess all exposed trusses, battens, ceiling framing and wall framing.
2. Record moisture readings before cleaning.
3. Clean retained timber using the method specified by the hygienist, which may include:
 - * HEPA vacuuming;
 - * controlled damp wiping;
 - * detergent cleaning;
 - * mechanical cleaning;
 - * approved surface treatment; and
 - * repeated HEPA cleaning.
4. Avoid uncontrolled dry sanding or wire brushing.
5. Do not use treatment chemicals as a substitute for physical removal of contamination and drying.
6. Assess connector plates, nails, brackets and fasteners for corrosion.
7. Refer any timber softening, decay, section loss, splitting or connector corrosion to a structural engineer.
8. Complete engineered repairs where required.
9. Do not modify trusses without written engineering or truss-manufacturer approval.

10.12 Structural drying

1. Install dehumidifiers, air movers and controlled drying equipment appropriate for the tropical environment.
2. Position equipment so it does not spread contamination outside containment.
3. Monitor temperature, relative humidity and substrate moisture.
4. Record moisture readings at nominated reference points.
5. Continue drying until:

- * timber and retained substrates are dry;
- * readings are stable;
- * no active moisture source remains; and
- * the hygienist or responsible consultant accepts the conditions for reinstatement.

6. Do not enclose wet framing or reinstall insulation while elevated moisture remains.

10.13 Post-remediation verification

After removal, cleaning and drying:

1. complete a detailed visual inspection;
2. confirm the moisture source has been rectified;
3. verify that no visible dust, debris or mould remains;
4. verify that retained materials are dry;
5. undertake air, surface or other sampling if required by the hygienist;
6. provide a written post-remediation verification or clearance report; and
7. retain photographic and moisture records.

****Hold Point 2:**** No plasterboard, insulation or cornice is to be installed before written hygiene clearance is issued.

10.14 Insulation reinstatement

1. Replace all removed ceiling and wall insulation.
2. Match or improve the documented existing thermal rating, subject to applicable approval and NCC requirements.
3. Install insulation without gaps, compression or displacement.
4. Maintain required clearances from:
 - * recessed lights;
 - * transformers;
 - * exhaust fans;
 - * electrical equipment;
 - * flues; and
 - * heat-producing components.
5. Do not cover electrical equipment unless it is specifically rated for insulation contact.

10.15 Plasterboard ceilings and walls

1. Confirm framing alignment and fixing suitability before lining.
2. Install plasterboard of the appropriate:
 - * thickness;
 - * ceiling span rating;
 - * moisture resistance;
 - * fire or acoustic rating where applicable; and
 - * manufacturer.
3. Install ceiling linings in accordance with AS/NZS 2589 and manufacturer instructions.
4. Provide back-blocking to ceiling joints as required.
5. Provide control joints at required locations.
6. Stagger joints and avoid unnecessary butt joints.
7. Reinstate affected wall linings to match the existing construction.
8. Provide a Level 4 finish as the minimum standard unless a higher level is documented.
9. Tape and set all joints, internal angles, external angles, fasteners and accessories.
10. Sand finishes smooth and free from ridges, tool marks and visible defects.
11. Inspect linings under representative lighting before painting.

10.16 Cornices

1. Supply and install new 90 mm cove cornice throughout the affected rooms.
2. Set out cornice joints to minimise short lengths and unnecessary joints.
3. Mitre and finish corners neatly.
4. Secure cornice in accordance with the adhesive manufacturer's requirements.
5. Finish all joints ready for painting.
6. Match existing adjoining cornice profiles where rooms connect to unaffected areas.

10.17 Painting and decoration

1. Ensure plasterboard and jointing compounds are fully dry.
2. Prepare all ceilings and walls by:
 - * dust removal;
 - * sanding;
 - * filling;
 - * spot sealing;
 - * stain sealing where required; and
 - * surface inspection.
3. Apply a suitable plasterboard sealer or primer to all new lining.
4. Apply two full finish coats, or the coating system required by the manufacturer.
5. Paint complete ceilings within each affected room.
6. Paint complete wall surfaces within each affected room where patching, moisture damage or colour matching makes local painting unsuitable.
7. Use flat ceiling paint unless otherwise specified.
8. Use a washable low-sheen internal wall coating appropriate for bedrooms and living areas.
9. Apply mould-resistant coating where recommended by the hygienist or coating manufacturer.
10. Match the existing colour and sheen unless the client selects a replacement colour.
11. Protect cabinetry, floors, fixtures and electrical fittings from overspray and splatter.
12. Finish surfaces free from:
 - * runs;
 - * sags;
 - * roller marks;
 - * flashing;
 - * bare areas;
 - * sanding marks;
 - * visible joint lines; and
 - * inconsistent sheen.

10.18 Electrical reinstatement

1. Reinstall or replace all lights, fans, alarms and electrical accessories.
2. Test affected circuits.

3. Confirm insulation clearances and luminaire ratings.
4. Replace water-affected fittings that cannot be safely reused.
5. Reinstate smoke alarms and test their operation.
6. Test and commission the solar system.
7. Provide all required electrical safety and compliance documentation.

10.19 Builders clean and contents reinstatement

1. Complete HEPA cleaning of affected rooms following construction.
2. Remove all protection, waste, dust and labels.
3. Clean:
 - * floors;
 - * walls;
 - * windows;
 - * tracks;
 - * cabinetry;
 - * benchtops;
 - * doors;
 - * trims;
 - * fittings; and
 - * adjoining access paths.
4. Complete a final hygiene clean where required.
5. Obtain final hygienist acceptance where post-construction cleaning forms part of the remediation plan.
6. Return stored furniture and contents only after the building is cleared for reoccupation.
7. Reinstall furniture in its original location unless instructed otherwise.

11. PROVISIONAL QUANTITIES

All quantities are approximate and must be verified by the contractor before pricing or ordering.

Area deductions	Room dimensions	Approx. ceiling area	Approx. cornice length	Gross wall area before
-----------------	-----------------	----------------------	------------------------	------------------------

-----	-----:	-----:	-----:	-----:
Bedroom 2	2.9 m × 3.4 m × 2.7 m high	9.86 m ²	12.6 lm	34.02 m ²
Bedroom 3	2.9 m × 3.4 m × 2.7 m high	9.86 m ²	12.6 lm	34.02 m ²
Bedroom 4	5.3 m × 3.4 m × 2.7 m high	18.02 m ²	17.4 lm	46.98 m ²
Kitchen/dining/living	10.1 m × 5.2 m × 2.7 m high	52.52 m ²	30.6 lm	82.62 m ²
Total		**90.26 m ² **	**73.2 lm**	**197.64 m ² **

Suggested ordering allowances before detailed site measure:

* Ceiling lining, including approximately 10% waste: **approximately 100 m²**.

* Cornice, including cuts and waste: **approximately 81 lm**.

* Insulation: **approximately 100 m²**, subject to actual removal boundaries.

* Wall painting: measure after deductions for doors, windows and fixed cabinetry.

* Wall lining replacement: provisional pending invasive inspection and hygienist direction.

The ceiling quantities exclude bulkheads, separate passage areas, cabinetry returns and other areas not included in the supplied dimensions.

12. Mandatory Hold Points

Hold Point 1 – Roof inspection

No permanent roof rectification is to be concealed until the bracket, flashing, tile and sarking details have been photographed and inspected.

Hold Point 2 – Roof testing

No internal reinstatement is to begin until the permanent roof repairs have passed controlled testing.

Hold Point 3 – Demolition boundaries

No major demolition is to proceed outside the hygienist's nominated boundaries without approval.

Hold Point 4 – Framing inspection

No ceiling or wall cavity is to be closed until the framing has been assessed for moisture, mould, decay and corrosion.

Hold Point 5 – Hygiene clearance

No insulation or plasterboard is to be installed until written post-remediation clearance has been obtained.

Hold Point 6 – Pre-paint inspection

No finish coating is to be applied until plasterboard joints and surfaces have been inspected under representative lighting.

Hold Point 7 – Final handover

Handover is not to occur until electrical certification, solar commissioning, hygiene clearance, builders cleaning and final defect inspection are complete.

13. Recommended Documentation at Completion

The principal contractor should provide:

- * roof inspection photographs;
- * photographs of every solar bracket before and after repair;
- * tile and flashing product details;
- * roof tiler's completion statement;
- * controlled water-test record;
- * solar installer's commissioning documentation;
- * electrical certificate of testing and compliance;
- * occupational hygienist's remediation protocol;
- * moisture and drying records;
- * post-remediation verification or clearance;
- * structural engineer's report where required;
- * insulation product and R-value details;
- * plasterboard product details;
- * paint product and colour schedule;
- * waste-disposal records where required;
- * warranties; and
- * final completion photographs.

14. Conclusion

The temporary make-safe tarping was performing successfully at the time of inspection, as no active water ingress was identified despite heavy rainfall. The tarp must remain in service until a permanent roof repair has been completed and verified.

The available information indicates that the original ingress was associated with the solar mounting system. The subsequent application of silicone around the brackets provides a technically credible mechanism for further ingress where the silicone obstructed the roof tile drainage channels and redirected water beneath the tiles.

Because the roof remained defective, internal repairs to Bedrooms 2 and 3 were undertaken prematurely and were subsequently damaged by renewed water entry.

Elevated moisture was identified across multiple rooms, including Bedroom 4 and the kitchen, dining and living areas. Roof-space imagery also indicates mould contamination on timber trusses at leak locations. The damage is therefore not limited to decorative staining or isolated ceiling patches.

A coordinated rectification process is required. The roof and solar mounting defects must first be exposed, documented, permanently repaired and tested. Wet and mould-contaminated porous materials must then be removed under suitable containment. Retained structural elements must be cleaned, assessed and dried, followed by independent hygiene clearance before insulation, ceilings, cornices, electrical fittings and decorative finishes are reinstated.

The full extent of concealed damage cannot be confirmed until controlled invasive investigation is undertaken. The final contract scope should therefore include reasonable provisional allowances for additional wall lining, insulation, timber treatment, electrical components and framing repairs discovered during opening-up.

On the balance of the currently available information, the observed internal moisture and mould damage is consistent with recurrent roof water ingress and an unsuccessful or incomplete sequence of roof and internal rectification works.

Observation

1.3.1 + Views
+ GENERAL VIEWS OF THE PROPERTY AT THE TIME OF THE INSPECTION

 Maintenance Item/Information Only

2: + INSPECTION SUMMARY NOTES

		V	D	M	U
2.1	Overall conditions				

V = Visually Fine D = Defect M = Major Defect U = Unable to Inspect