



COMPREHENSIVE PROPERTY REPORTS

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<https://www.cprnz.nz>



WEATHERTIGHTNESS REPORT COPY

1234 Main St. Paraparaumu Wellington 5032

Buyer Name

13/02/2022 9:00AM



Inspector

Travis Mackay

Trade Qualified Building Inspector.
Structural Engineer. Master Carpenter.
Level 3 Certified Thermographer. Property
Investor. Renovation Specialist. Mediation
Resolution Expert. 25+ Years Industry
Experience.

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Agent

Agent Name

555-555-5555

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COMPREHENSIVE PROPERTY REPORTS LIMITED

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1: PROPERTY DETAILS & SUMMARY

Information

PROPERTY & CLIENT INFORMATION

PROPERTY & CLIENT INFORMATION

ADDRESS: 0101 STREET NAME 5032

CLIENT: DON SMITH

DATE: 11/02/2022

PROPERTY DETAILS

DECADE OF CONSTRUCTION: 1990s

LEVELS: 01

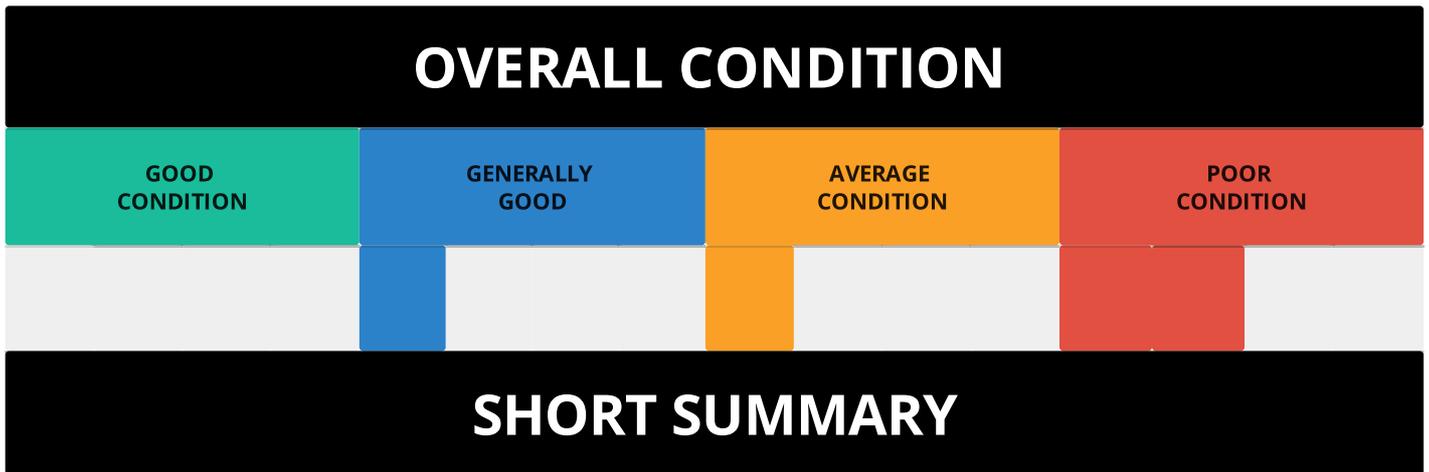
CLADDING SYSTEMS: DIRECT FIX PLASTER COAT SYSTEM,
BOARD & BATTEN SYSTEM

ROOF COVERINGS: CORRUGATED IRON PROFILE,
MEMBRANE FLAT ROOFING.

FOUNDATION SYSTEM: CONCRETE SLAB SYSTEM

WEATHER CONDITIONS: HUMID, WARM, RAIN AT THE TIME
OF INSPECTION

OVERALL SUMMARY



SUMMARY: The building overall is in an average to poor weather tight condition relative to its age, location and era of construction. The majority of homeowners with plaster cladding are still not fully aware of the maintenance requirements necessary to ensure their investment is weather tight. This particular plaster coat cladding system has unfortunately suffered from this same plight and shows to have not been well maintained. The property is in need of moderate to major level maintenance and repair work in multiple areas. Multiple areas will require trade contractors to correct. There are multiple areas that need a substantial amount of money spent to make weather tight so please be aware that no matter with direction you choose to move forward in, you will either have to pay for this work up front and/or be prepared to subtract it from your asking price.

We have made contact with multiple contractors whom we would usually recommend to repair the cause issues at a property with this cladding type. Under your instruction we will proceed to formulate a plan to get the property in a better condition for sale. There are many other choices still available to you. Those choices are:

1. Continue booking the building contractors with good knowledge of direct fix monolithic cladding systems and who are prepared to do the work required and then "sign the work off".
 - 1.1) This way you could take your time, and one by one tick off the areas that need correcting.
 - 1.2) This way you could have Texturite Coatings weather seal the cladding system.
2. Have the cladding system sealed and repairs done, but not signed off.
 - 2.1) This way you would have to find a different cladding painter. (Still ask for a guarantee)
3. Sell the property as is, with full disclosures and be prepared to be knocked back on price.
4. Sell the property as is, with full disclosures but have all the required work pre-quoted and control the price negotiations at settlement.
5. Tailor the sale towards the developer market instead of retail market with a fixed price.

We will of course continue to assist you in any way possible no matter your choice. For the time being we can open up the interior of these areas to check the extent of deterioration to the timber framing and this will also allow the sections to dry out as much as possible. There is Zero charge for this service.

NOTE: The poor weather during the inspection limited us from performing a full investigation into all areas of the property. We will need to complete this inspection prior to commencing any renovation work.

MAINTENANCE IS KEY: With all buildings and cladding types, the key to protecting your property investment is keeping up a strict maintenance schedule. By scheduling ahead of time, any weather sealing and painting requirements, you can save a considerable amount of extra costs over time and guarantee the longevity of your investment.

2: THERMAL & MOISTURE INFORMATION

Information

HOW TO READ OUR OBSERVATION RATINGS & MOISTURE %

HOW TO READ OUR OBSERVATION RATINGS

MATERIAL MOISTURE AVERAGES

ALL BUILDING MATERIALS HOLD DIFFERENT MOISTURE AVERAGES.

Those averages can vary from building to building and even from room to room, for multiple reasons.

Some of the more common variables are:

Environment, maintenance, age, exposure, absorption, installation techniques, thickness of primers and weather sealing paints.

The list of possible variable influences is in the thousands.

As an inspector, establishing if a particular area and/or material behind another material has an elevated moisture level or not, can not be done by simply holding a moisture meter to a wall and reading the screen.

However, For the purposes of this report, we have minimized the documentation by using a simple image layout.

EXTERIOR DEFECTS WE LOOK FOR ARE: Cracks in cladding. Historic repair work. High detail area with substandard weather seal. Decking, Pergola and/or after construction attachment to cladding. Possible forced moisture ingress due to severe weather. Short and/or no eaves. Material and/or weather seal deterioration.

Lapsed maintenance. Weather seal defects roofing. Weather seal defects joinery. Ground clearance issues.

INTERIOR DEFECTS WE LOOK FOR ARE: Swollen timbers. Wall lining defects. Material deterioration. Material discolouration. Mould. Musty odours. Condensation damage.

TO STATE THAT AN AREA HAS A MOISTURE INGRESS ISSUE, WE MUST:

- IDENTIFY POINT OF INGRESS (WEATHER SEALING DEFECT)
- IDENTIFY VISUAL CUES OF MOISTURE DAMAGE (LISTED ABOVE)
- IDENTIFY ELEVATED MOISTURE READINGS ON TWO DIFFERENT MOISTURE READING TOOLS.
- IDENTIFY MODERATE TO MAJOR TEMPERATURE DIFFERENTIALS (DEPENDING ON CONDITIONS DURING THE INSPECTION)

HOW TO READ OUR OBSERVATION RATINGS & MOISTURE % 2**MOISTURE % GLOSSARY**
THIS MOISTURE % GUIDE IS EXACTLY THAT. IT IS A GUIDE ONLY.**0-17%**

Low level moisture readings within the NZ Standards were detected at the time of inspection. This is not uncommon in dwellings of this age and construction era. If multiple low moisture levels are found in a close proximity to each other, it can be an early warning that the area has a developing issue.

17-40%

MOISTURE DETECTED (MODERATE LEVELS) 17.0 - 40.0 Moderate level moisture readings can be caused by many different things, a lot of which are relatively minor defects. Severe weather forcing rainwater passed normally good weather proof barriers. Directional weather systems that would otherwise be weather tight. Eg. concentration of rain on a misfit and/or short glazing seal at one end only of a joinery section.

*Prolonged condensation build up in one area is a common cause for elevated moisture readings that if gone unnoticed and/or left unchallenged can be a catalyst to major framing damage. This can amplify the swelling and contracting of materials and cause cracks in cladding that then allow yet more moisture ingress through into the wall cavity. This is why readings at this level are often an early warning sign of a developing issue. The cladding, joinery, flashings and/or general weather seal in this area may need attention, and if dealt with sooner rather than later shouldn't progress into a major repair.

40-100%

MOISTURE DETECTED (HIGH LEVELS) 40.0 - 100.0 High level moisture readings are a definitive sign that strongly warrants further investigation to find the exact cause of the moisture ingress and prevent any further damaging effects. When readings at these higher levels are identified it is important to fully gauge the overall extent of damage to the building materials within the cavity. We may recommend having a fully invasive inspection done sooner rather than later. By either CPRNZ or another independent inspector. There can sometimes be a sizable cost involved to complete the work needed to correct these issues.

17% - MOIST - 40% - DAMP - 70% - WET - 100%

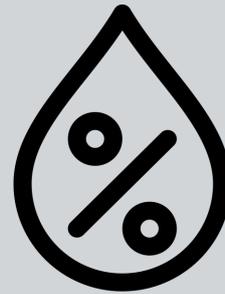
THERMAL IMAGING & MOISTURE METERING**THERMAL IMAGING & MOISTURE METERING**

Thermal imaging does not provide our inspectors with X-ray vision! It is a tool used to indicate areas that may require further investigation with other moisture detecting equipment.

Thermal Imaging does not detect moisture! Put simply, it is used to identify areas that show "**Temperature Differentials**". Not so simply put, Thermal imaging does not directly measure temperature, it measures radiated thermal energy. Temperature is then derived from the amount of energy detected.

For example: Moist areas of a wall will show greater temperature loss because water is a better conductor of heat. The thermal camera can also "indicate" what lies behind walls. Often the studs can be seen because the wood, which has a lower R-value than the insulated walls, serves as a "thermal bridge" for heat flow.

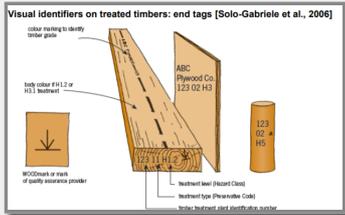
***NOTE:** Forced moisture ingress is not the same as prolonged moisture ingress. All cladding types will allow some moisture past the first layer or layers of protection under severe enough weather conditions. This does not mean they are defective. These observations should drain and dry out in time. They must still be monitored for any signs of mould and/or other indicators the area is not drying as it should.

MOISTURE TESTING DOCUMENTATION**ROOM BY ROOM
MOISTURE TESTING
DOCUMENTATION**

TREATED OR NON-TREATED TIMBER FRAMING

TREATED OR NON-TREATED TIMBER FRAMING

IN-WALL CHECKLIST:	YES	NO	N/I	N/A
TREATED TIMBER BASE PLATES				
TREATED WALL FRAMES				



Preservative	Code Number
Copper Chrome Arsenate (CCA) - Oxide	01
Copper Chrome Arsenate (CCA) - Salt	02
Boron	11
Bis-(tri-n-butyltin) oxide (TBTO)	56
Copper Azole (CuAz)	58
Bis-(tri-n-butyltin) naphthenate (TBTN)	62
Iodo propynyl butyl carbamate (IPBC)	63
Copper Naphthenate (CuN)	57
Propiconazole + Tebuconazole	64
Permethrin	70
Alkaline Copper Quaternary (ACQ)	90

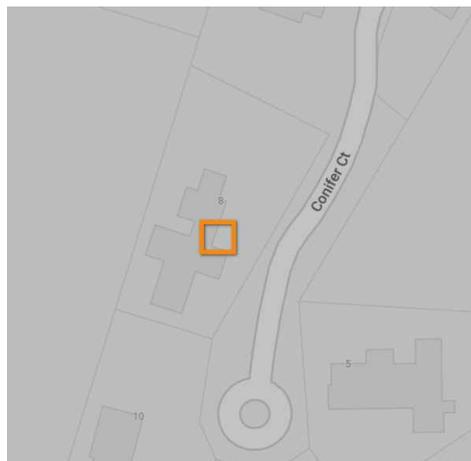
*If we have not identified moisture and/or moisture damage within the wall cavity inspected then this documentation / observation applies to the specific section noted only. It does not mean there was no moisture in any other wall cavities. There may be areas deemed inaccessible and/or areas that where it was not possible to view by eye and/or the endoscopic camera was not able to be used in a useful manor.

3: ENTRANCE & HALLWAY *

Information

ENTRANCE & HALLWAY : ENTRANCE & HALLWAYS

ENTRANCE & HALLWAY		
	ROOM IDENTIFICATION	



ENTRANCE & HALLWAY : MOISTURE TESTING RESULTS

MOISTURE TESTING RESULTS

NO MAJOR CONCERNS	ACCEPTABLE LEVELS	ELEVATED MOISTURE	AREA OF CONCERN

NON-INVASIVE MOISTURE CHECKLIST:

--	--	--	--

BASE OF WALL AND/OR FLOORING			
TOP OF WALL AND/OR CEILING			
WALL LININGS AT JOINERY			
TIMBER AT JOINERY			



ENTRANCE - CEILING



ENTRANCE & HALLWAY : VISUAL INSPECTION RESULTS - EXTERIOR

VISUAL INSPECTION RESULTS



NO MAJOR DEFECTS	ACCEPTABLE DEFECTS	MOISTURE DEFECTS	AREA OF CONCERN

EXTERIOR VISUAL CHECKLIST:

--	--	--	--

WEATHER SEAL DEFECTS - CLADDING

--	--	--

WEATHER SEAL DEFECTS - JOINERY

--	--	--

WEATHER SEAL DEFECTS - GROUND CLEARANCE

--	--	--

WEATHER SEAL DEFECTS - ROOFING

--	--	--



EITHER GRIME BUILD UP AND/OR MOULD NOTED ON SOFFIT



ELEVATED MOISTURE NOTED IN THE CEILING INSIDE THE FRONT DOOR



APPEARS TO BE MOULD ON SOFFITS



DEFECT IS ELEVATED FROM THE HALLWAY CEILING AND FRONT DOOR SOFFIT OBSERVATIONS. POSSIBLE CAUSE



EFFLORESCENCE NOTED

ENTRANCE & HALLWAY : VISUAL INSPECTION RESULTS - INTERIOR

VISUAL INSPECTION RESULTS

NO MAJOR DEFECTS	ACCEPTABLE DEFECTS	MOISTURE DEFECTS	AREA OF CONCERN

INTERIOR VISUAL CHECKLIST:			
-----------------------------------	--	--	--

SWOLLEN AND/OR ROTTEN TIMBER			
CONDENSATION / MOISTURE DAMAGE			
MOULD AT JOINERY OR ON CURTAINS			



ENTRANCE & HALLWAY : ENDOSCOPIC CAMERA RESULTS*

ENDOSCOPIC CAMERA RESULTS



NO DEFECTS	ACCEPTABLE DEFECTS	MOISTURE DEFECTS	MAJOR DEFECTS

INVASIVE CAVITY INSPECTION CHECKLIST:			
--	--	--	--

MOULD IN CAVITY			
MOISTURE IN CAVITY			
ROT IN TIMBER FRAMING			

*If we have not identified moisture and/or moisture damage within the wall cavity inspected then this documentation / observation applies to the specific section noted only. It does not mean there was no moisture in any other wall cavities. There may be areas deemed inaccessible and/or areas that where it was not possible to view by eye and/or the endoscopic camera was not able to be used in a useful manor.

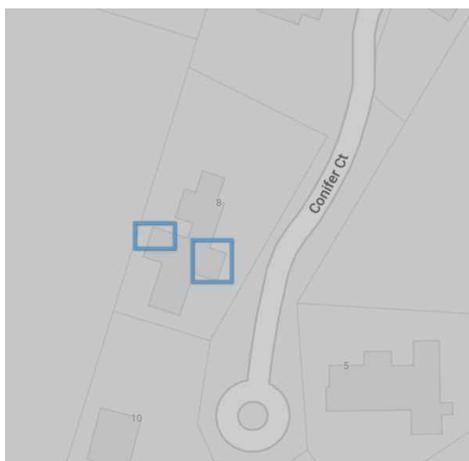


4: BEDROOMS*

Information

BEDROOMS: BEDROOMS

BEDROOMS		
	ROOM IDENTIFICATION	



BEDROOMS: MOISTURE TESTING RESULTS*

MOISTURE TESTING RESULTS

NO MAJOR CONCERNS	ACCEPTABLE LEVELS	ELEVATED MOISTURE	AREA OF CONCERN

NON-INVASIVE MOISTURE CHECKLIST:

--	--	--	--

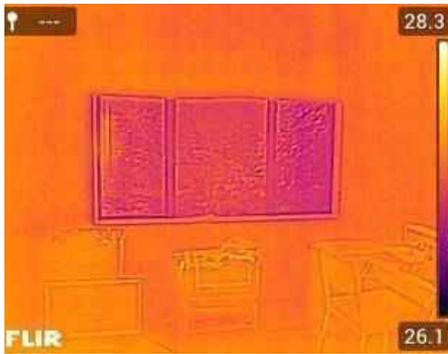
BASE OF WALL AND/OR FLOORING			
TOP OF WALL AND/OR CEILING			
WALL LININGS AT JOINERY			
TIMBER AT JOINERY			

NOTES: BEDROOM...



N WINDOW - BEDROOM 2





NW WINDOW - BEDROOM 2



Moisture

92.5 Pinless Mode

A blue progress bar showing the moisture level at 92.5%.

BEDROOMS: VISUAL INSPECTION RESULTS - EXTERIOR

VISUAL INSPECTION RESULTS



NO MAJOR DEFECTS	ACCEPTABLE DEFECTS	MOISTURE DEFECTS	AREA OF CONCERN

EXTERIOR VISUAL CHECKLIST:			
-----------------------------------	--	--	--

WEATHER SEAL DEFECTS - CLADDING			
--	--	--	--

WEATHER SEAL DEFECTS - JOINERY			
---------------------------------------	--	--	--

WEATHER SEAL DEFECTS - GROUND CLEARANCE			
--	--	--	--

WEATHER SEAL DEFECTS - ROOFING			
---------------------------------------	--	--	--



LICHEN, ALGAE AND/OR MOSS ON CLADDING



PLANTS IN CONTACT WITH CLADDING



PLANTS IN CONTACT WITH CLADDING



FAILING WEATHER SEAL AT JOINERY TO CLADDING JUNCTION



FAILING WEATHER SEAL AT JOINERY TO CLADDING JUNCTION



WEATHER SEAL DEFECT - ROOFING

BEDROOMS: VISUAL INSPECTION RESULTS - INTERIOR

VISUAL INSPECTION RESULTS

NO MAJOR DEFECTS	ACCEPTABLE DEFECTS	MOISTURE DEFECTS	AREA OF CONCERN
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INTERIOR VISUAL CHECKLIST:			
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SWOLLEN AND/OR ROTTEN TIMBER		
-------------------------------------	--	--

CONDENSATION / MOISTURE DAMAGE			
---------------------------------------	--	--	--

MOULD AT JOINERY OR ON CURTAINS		
--	--	--





BEDROOMS: ENDOSCOPIC CAMERA RESULTS*

ENDOSCOPIC CAMERA RESULTS



NO DEFECTS	ACCEPTABLE DEFECTS	MOISTURE DEFECTS	MAJOR DEFECTS

INVASIVE CAVITY INSPECTION CHECKLIST:			
--	--	--	--

MOULD IN CAVITY			
MOISTURE IN CAVITY			
ROT IN TIMBER FRAMING			

*If we have not identified moisture and/or moisture damage within the wall cavity inspected then this documentation / observation applies to the specific section noted only. It does not mean there was no moisture in any other wall cavities. There may be areas deemed inaccessible and/or areas that where it was not possible to view by eye and/or the endoscopic camera was not able to be used in a useful manor.

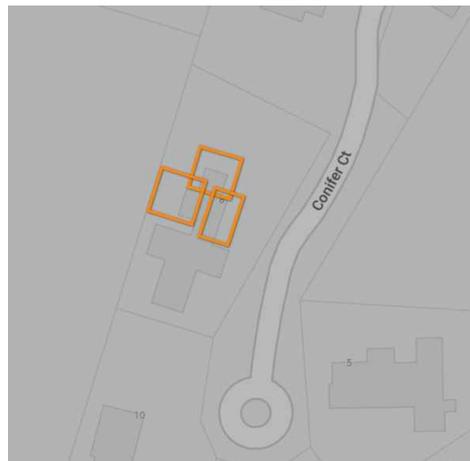


5: LIVING & DINING AREAS*

Information

LIVING & DINING AREAS

LIVING & DINING AREAS		
	ROOM IDENTIFICATION	



MOISTURE TESTING RESULTS

MOISTURE TESTING RESULTS

NO MAJOR CONCERNS	ACCEPTABLE LEVELS	ELEVATED MOISTURE	AREA OF CONCERN

NON-INVASIVE MOISTURE CHECKLIST:

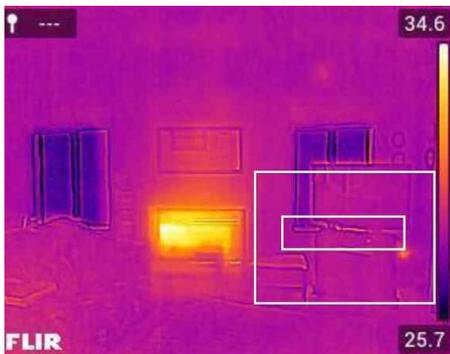
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BASE OF WALL AND/OR FLOORING		
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TOP OF WALL AND/OR CEILING			
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WALL LININGS AT JOINERY		
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TIMBER AT JOINERY		
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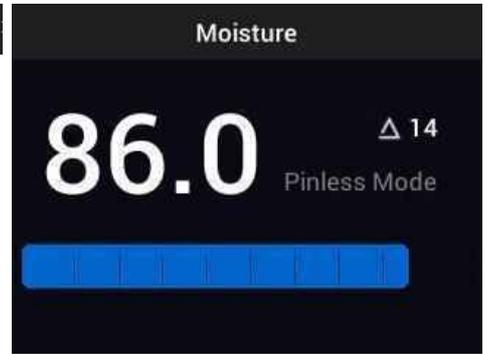


NW FACING WALL LIVING





EAST FACING WALL DINING



NE CORNER DINING



SW FACING WALL LIVING 2



VISUAL INSPECTION RESULTS - EXTERIOR

VISUAL INSPECTION RESULTS



NO MAJOR DEFECTS	ACCEPTABLE DEFECTS	MOISTURE DEFECTS	AREA OF CONCERN

EXTERIOR VISUAL CHECKLIST:			
-----------------------------------	--	--	--

WEATHER SEAL DEFECTS - CLADDING		
--	--	--

WEATHER SEAL DEFECTS - JOINERY		
---------------------------------------	--	--

WEATHER SEAL DEFECTS - GROUND CLEARANCE		
--	--	--

WEATHER SEAL DEFECTS - ROOFING			
---------------------------------------	--	--	--

NOTE: FAR TOO MANY DEFECTS IDENTIFIED FROM THE EXTERIOR TO INDIVIDUALLY TAG EACH ONE. SEE CLADDING SECTION FOR DOCUMENTATION & OBSERVATION GALLERY.



DINING



DINING



DINING - LIVING



KITCHEN



KITCHEN



KITCHEN



LIVING 1



LIVING 1



LIVING 1

VISUAL INSPECTION RESULTS - INTERIOR

VISUAL INSPECTION RESULTS



NO MAJOR DEFECTS	ACCEPTABLE DEFECTS	MOISTURE DEFECTS	AREA OF CONCERN

INTERIOR VISUAL CHECKLIST:	<div style="display: flex; justify-content: space-around; width: 100%;"> <div style="width: 30%; background-color: #3498db;"></div> <div style="width: 30%; background-color: #f39c12;"></div> <div style="width: 30%; background-color: #e74c3c;"></div> </div>
SWOLLEN AND/OR ROTTEN TIMBER	<div style="display: flex; justify-content: space-around; width: 100%;"> <div style="width: 30%; background-color: #d3d3d3;"></div> <div style="width: 30%; background-color: #f39c12;"></div> <div style="width: 30%; background-color: #d3d3d3;"></div> </div>
CONDENSATION / MOISTURE DAMAGE	<div style="display: flex; justify-content: space-around; width: 100%;"> <div style="width: 30%; background-color: #d3d3d3;"></div> <div style="width: 30%; background-color: #f39c12;"></div> <div style="width: 30%; background-color: #d3d3d3;"></div> </div>
MOULD AT JOINERY OR ON CURTAINS	<div style="display: flex; justify-content: space-around; width: 100%;"> <div style="width: 30%; background-color: #d3d3d3;"></div> <div style="width: 30%; background-color: #f39c12;"></div> <div style="width: 30%; background-color: #d3d3d3;"></div> </div>





MOULD SIGHTED



ENDOSCOPIC CAMERA RESULTS*

ENDOSCOPIC CAMERA RESULTS



NO DEFECTS	ACCEPTABLE DEFECTS	MOISTURE DEFECTS	MAJOR DEFECTS

INVASIVE CAVITY INSPECTION CHECKLIST:			
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MOULD IN CAVITY		
MOISTURE IN CAVITY		
ROT IN TIMBER FRAMING		

*If we have not identified moisture and/or moisture damage within the wall cavity inspected then this documentation / observation applies to the specific section noted only. It does not mean there was no moisture in any other wall cavities. There may be areas deemed inaccessible and/or areas that where it was not possible to view by eye and/or the endoscopic camera was not able to be used in a useful manor.



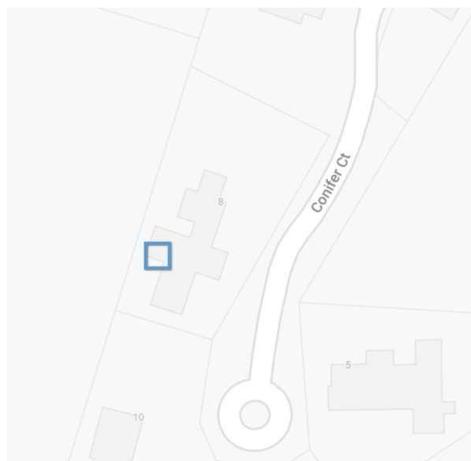


6: BATHROOM AREAS*

Information

BATHROOM AREAS: BATHROOM AREAS

BATHROOM AREAS		
	ROOM IDENTIFICATION	



BATHROOM AREAS: MOISTURE TESTING RESULTS

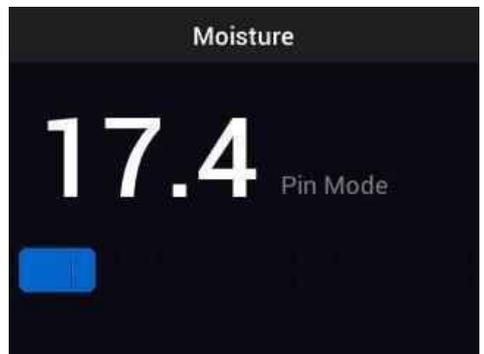
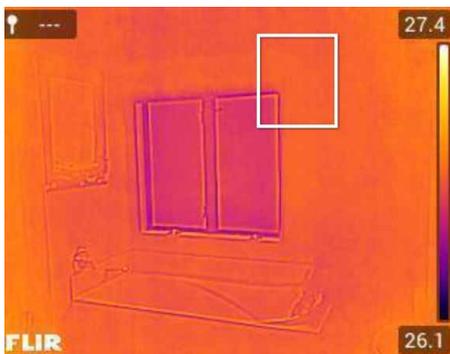
MOISTURE TESTING RESULTS

NO MAJOR CONCERNS	ACCEPTABLE LEVELS	ELEVATED MOISTURE	AREA OF CONCERN

NON-INVASIVE MOISTURE CHECKLIST:

--	--	--	--

BASE OF WALL AND/OR FLOORING			
TOP OF WALL AND/OR CEILING			
WALL LININGS AT JOINERY			
TIMBER AT JOINERY			



BATHROOM AREAS: VISUAL INSPECTION RESULTS - EXTERIOR

VISUAL INSPECTION RESULTS



NO MAJOR DEFECTS	ACCEPTABLE DEFECTS	MOISTURE DEFECTS	AREA OF CONCERN

EXTERIOR VISUAL CHECKLIST:			
-----------------------------------	--	--	--

WEATHER SEAL DEFECTS - CLADDING			
--	--	--	--

WEATHER SEAL DEFECTS - PENETRATIONS			
--	--	--	--

WEATHER SEAL DEFECTS - GROUND CLEARANCE			
--	--	--	--

WEATHER SEAL DEFECTS - ROOFING			
---------------------------------------	--	--	--



WEATHER SEAL DEFECT - ROOFING



DAMAGED VENT



DAMAGED VENT

BATHROOM AREAS: VISUAL INSPECTION RESULTS - INTERIOR

VISUAL INSPECTION RESULTS

NO MAJOR DEFECTS	ACCEPTABLE DEFECTS	MOISTURE DEFECTS	AREA OF CONCERN

INTERIOR VISUAL CHECKLIST:

--	--	--

SWOLLEN AND/OR ROTTEN TIMBER	<table border="1" style="width: 100%;"> <tr> <td style="background-color: #4169e1; width: 20%;"></td> <td style="background-color: #cccccc; width: 80%;"></td> </tr> </table>		
CONDENSATION / MOISTURE DAMAGE	<table border="1" style="width: 100%;"> <tr> <td style="background-color: #4169e1; width: 20%;"></td> <td style="background-color: #cccccc; width: 80%;"></td> </tr> </table>		
MOULD AT JOINERY OR ON CURTAINS	<table border="1" style="width: 100%;"> <tr> <td style="background-color: #4169e1; width: 20%;"></td> <td style="background-color: #cccccc; width: 80%;"></td> </tr> </table>		



SEPARATE TOILET - NO MAJOR DEFECTS TO NOTE



ENSUITE - NO MAJOR DEFECTS TO NOTE

BATHROOM AREAS: ENDOSCOPIC CAMERA RESULTS

ENDOSCOPIC CAMERA RESULTS

N/A	ACCEPTABLE DEFECTS	MOISTURE DEFECTS	MAJOR DEFECTS
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INVASIVE CAVITY INSPECTION CHECKLIST:			
--	--	--	--

MOULD IN CAVITY			
MOISTURE IN CAVITY			
ROT IN TIMBER FRAMING			

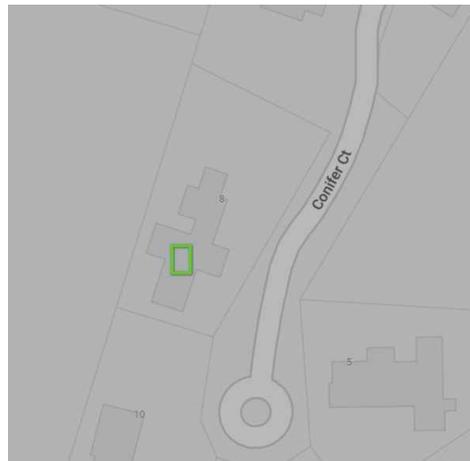
*If we have marked with black boxes, there was no external powerpoints to access to wall cavities.

7: LAUNDRY AREA*

Information

LAUNDRY: LAUNDRY

LAUNDRY AREA		
	ROOM IDENTIFICATION	



LAUNDRY: MOISTURE TESTING RESULTS

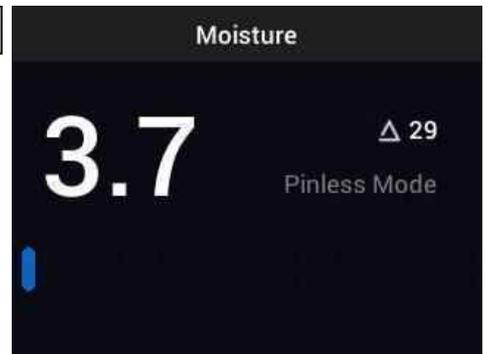
MOISTURE TESTING RESULTS



NO MAJOR CONCERNS	ACCEPTABLE LEVELS	ELEVATED MOISTURE	AREA OF CONCERN

NON-INVASIVE MOISTURE CHECKLIST:

BASE OF WALL AND/OR FLOORING	<div style="background-color: #00c853; width: 25%; height: 20px; display: inline-block;"></div> <div style="background-color: #cccccc; width: 75%; height: 20px; display: inline-block;"></div>
TOP OF WALL AND/OR CEILING	<div style="background-color: #00c853; width: 25%; height: 20px; display: inline-block;"></div> <div style="background-color: #cccccc; width: 75%; height: 20px; display: inline-block;"></div>
WALL LININGS AT JOINERY	<div style="background-color: #00c853; width: 25%; height: 20px; display: inline-block;"></div> <div style="background-color: #cccccc; width: 75%; height: 20px; display: inline-block;"></div>
TIMBER AT JOINERY	<div style="background-color: #00c853; width: 25%; height: 20px; display: inline-block;"></div> <div style="background-color: #cccccc; width: 75%; height: 20px; display: inline-block;"></div>



LAUNDRY: VISUAL INSPECTION RESULTS - EXTERIOR

VISUAL INSPECTION RESULTS



NO MAJOR DEFECTS	ACCEPTABLE DEFECTS	MOISTURE DEFECTS	AREA OF CONCERN

EXTERIOR VISUAL CHECKLIST:

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WEATHER SEAL DEFECTS - CLADDING

--	--

WEATHER SEAL DEFECTS - JOINERY

--	--

WEATHER SEAL DEFECTS - GROUND CLEARANCE

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WEATHER SEAL DEFECTS - ROOFING

--	--



GROUND CLEARANCE



CORRECT WEATHER SEAL



CORRECT WEATHER SEAL

LAUNDRY: VISUAL INSPECTION RESULTS - INTERIOR

VISUAL INSPECTION RESULTS

NO MAJOR DEFECTS	ACCEPTABLE DEFECTS	MOISTURE DEFECTS	AREA OF CONCERN

INTERIOR VISUAL CHECKLIST:

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SWOLLEN AND/OR ROTTEN TIMBER		
CONDENSATION / MOISTURE DAMAGE		
MOULD AT JOINERY OR ON CURTAINS		



LAUNDRY - NO MAJOR DEFECTS TO NOTE

LAUNDRY: ENDOSCOPIC CAMERA RESULTS

ENDOSCOPIC CAMERA RESULTS



NO DEFECTS	ACCEPTABLE DEFECTS	MOISTURE DEFECTS	MAJOR DEFECTS

INVASIVE CAVITY INSPECTION CHECKLIST:			
--	--	--	--

MOULD IN CAVITY			
MOISTURE IN CAVITY			
ROT IN TIMBER FRAMING			

*If we have not identified moisture and/or moisture damage within the wall cavity inspected then this documentation / observation applies to the specific section noted only. It does not mean there was no moisture in any other wall cavities. There may be areas deemed inaccessible and/or areas that where it was not possible to view by eye and/or the endoscopic camera was not able to be used in a useful manor.

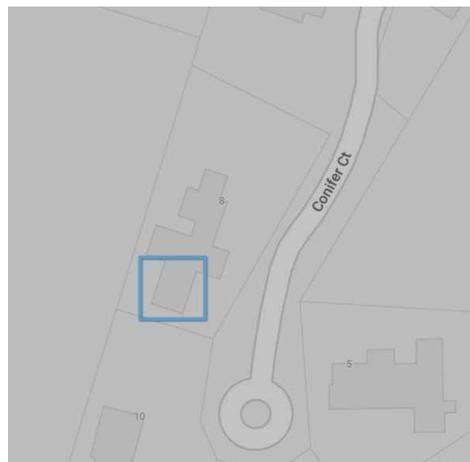


8: GARAGE AREA*

Information

GARAGE

GARAGE AREA		
	ROOM IDENTIFICATION	



MOISTURE TESTING RESULTS

MOISTURE TESTING RESULTS

NO MAJOR CONCERNS	ACCEPTABLE LEVELS	ELEVATED MOISTURE	AREA OF CONCERN
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NON-INVASIVE MOISTURE CHECKLIST:

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BASE OF WALL AND/OR FLOORING

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TOP OF WALL AND/OR CEILING

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WALL LININGS AT JOINERY

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TIMBER AT JOINERY

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Moisture

16.7

Pin Mode

VISUAL INSPECTION RESULTS - EXTERIOR

VISUAL INSPECTION RESULTS

NO MAJOR DEFECTS	ACCEPTABLE DEFECTS	MOISTURE DEFECTS	AREA OF CONCERN
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EXTERIOR VISUAL CHECKLIST:			
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WEATHER SEAL DEFECTS - CLADDING		
--	--	--

WEATHER SEAL DEFECTS - JOINERY		
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WEATHER SEAL DEFECTS - GROUND CLEARANCE			
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WEATHER SEAL DEFECTS - ROOFING			
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PLANTS IN CONTACT WITH CLADDING



WEATHER SEAL DEFECT - ROOFING



DAMAGED DOWNPIPE

VISUAL INSPECTION RESULTS - INTERIOR

VISUAL INSPECTION RESULTS

NO MAJOR DEFECTS	ACCEPTABLE DEFECTS	MOISTURE DEFECTS	AREA OF CONCERN
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INTERIOR VISUAL CHECKLIST:	<table style="margin: auto;"> <tr> <td style="background-color: #3498db; width: 30px; height: 30px;"></td> <td style="background-color: #f1c40f; width: 30px; height: 30px;"></td> <td style="background-color: #e74c3c; width: 30px; height: 30px;"></td> </tr> </table>			

SWOLLEN AND/OR ROTTEN TIMBER	<table style="margin: auto;"> <tr> <td style="background-color: #ccc; width: 30px; height: 30px;"></td> <td style="background-color: #f1c40f; width: 30px; height: 30px;"></td> <td style="background-color: #ccc; width: 30px; height: 30px;"></td> </tr> </table>			

CONDENSATION / MOISTURE DAMAGE	<table style="margin: auto;"> <tr> <td style="background-color: #ccc; width: 30px; height: 30px;"></td> <td style="background-color: #f1c40f; width: 30px; height: 30px;"></td> <td style="background-color: #ccc; width: 30px; height: 30px;"></td> </tr> </table>			

MOULD AT JOINERY OR ON CURTAINS	<table style="margin: auto;"> <tr> <td style="background-color: #3498db; width: 30px; height: 30px;"></td> <td style="background-color: #ccc; width: 30px; height: 30px;"></td> <td style="background-color: #ccc; width: 30px; height: 30px;"></td> </tr> </table>			



SWOLLEN BUILDING MATERIALS

ENDOSCOPIC CAMERA RESULTS

ENDOSCOPIC CAMERA RESULTS

NO DEFECTS	ACCEPTABLE DEFECTS	MOISTURE DEFECTS	MAJOR DEFECTS

INVASIVE CAVITY INSPECTION CHECKLIST:			
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MOULD IN CAVITY			
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MOISTURE IN CAVITY			
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ROT IN TIMBER FRAMING			
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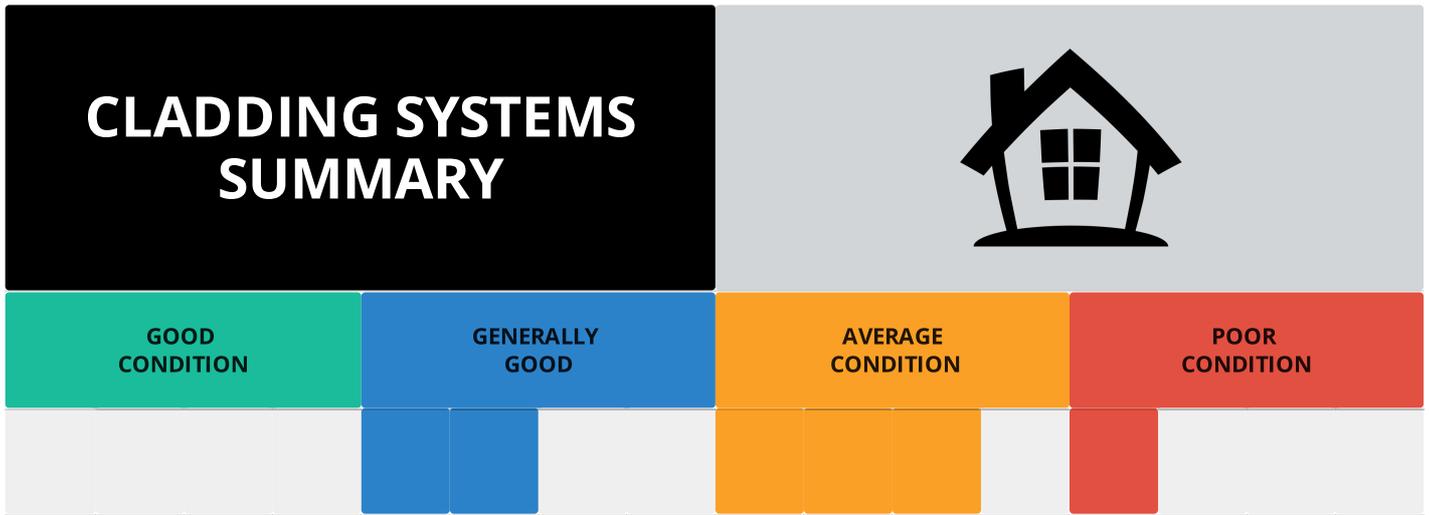
*If we have not identified moisture and/or moisture damage within the wall cavity inspected then this documentation / observation applies to the specific section noted only. It does not mean there was no moisture in any other wall cavities. There may be areas deemed inaccessible and/or areas that where it was not possible to view by eye and/or the endoscopic camera was not able to be used in a useful manor.



9: BUILDING INFORMATION

Information

CLADDING: CLADDING SUMMARY



SIDING MATERIALS

TYPE:

- BOARD & BATTEN
- TEXTURE COAT

CONDITION:

- Board & batten cladding is in a generally good overall condition.
- Texture coat cladding is in an average to poor overall condition.
- The B&B cladding showed the expected amount of weathering.
- **The Texture coat cladding showed an excess amount of weathering**
- Weathering and/or cracking of the cladding materials.
- Weather seal breakdown.
- Areas of cladding are high risk for moisture ingress.

GROUND CLEARANCE

- **This design of building has its siding to close and/or in contact with the ground.**

WEATHER SEAL

- **Indication of through wall moisture ingress at the time of inspection.**

CLADDING: BOARD & BATTEN**BOARD & BATTEN**

Wood siding that consists of narrow vertical strips (battens) installed over a flat base (board) is known, logically enough, as board and batten. It's been popular for centuries on the exterior of houses as well as storage sheds, barns, and other agricultural outbuildings; it's since become on trend as a trim to add visual interest to interior walls. Read on to learn all about board and batten—from its water-shedding original use to its current decorative appeal, as well as its cost and installation particulars for outdoor and indoor applications. In the 18th Century, home construction began moving away from whole logs (as in cabins) and masonry towards lumber. A skeletal frame would be constructed, over which long flat boards were attached to form a weather-resistant barrier. Installing boards vertically encouraged rain to run down along the outside of the house rather than seep in. Adding battens to cover the seams between the larger boards provided extra weather-proofing protection. The large flat boards had a tendency to warp, however, and by the late 1800s, horizontal lapped siding (narrow horizontal boards installed from the bottom up, with each subsequent board lapping the one below) proved more efficient at shedding rain and so became the norm. Today, board and batten siding is kiln-dried to reduce warping, and it's installed over framing, sheathing, and a vapor barrier to lend greater structural integrity. That said, any type of wood used outdoors should be resistant to moisture and insect damage. Cedar is a common choice for exterior board and batten siding, but other acceptable wood species include Cypress, redwood, locust, white oak, and hemlock.

The Ins and Outs of Installation

If you have basic carpentry skills, including the ability to measure and cut the boards precisely, and you're comfortable using a circular saw, a caulking gun, and a nail gun or screw gun, you can install either type of board and batten—the exterior siding or the interior trim. Interior board and batten trim is much easier to install, however, because less work is involved, so it's better suited to the newbie do-it-yourselfer.

Install furring strips. In order to securely attach the vertical flat boards to the exterior of your house, you'll need to install horizontal furring strips, which provide a structural frame on which to attach the boards. Furring strips can be made by attaching 1×4 boards horizontally to your home's plywood sheathing, spacing them 24 inches apart, and nailing them to the studs beneath the sheathing.

Measure and cut. This is where precision comes in, and the old saying “measure twice, cut once” applies. Measure from the underside of the soffit to ¼ inch below the top of the foundation. Use a circular saw to cut the ends of the boards.

Leave gaps when installing boards. No matter what type of wood you choose, it's likely to expand and contract slightly due to weather variations, and if the boards are pressed tightly against one another, the pressure could cause warping. To keep this from happening, rather than butt the top of the boards tightly against the soffit, leave a ¼-inch gap. This will put the bottom of the board ½ inch below the top of the foundation, which will help protect the wood sill plate, located on the top of the foundation, from the rain. Likewise, keep a ¼-inch gap between the vertical boards as you attach them to the furring strips.

Use galvanized screws, which don't rust or corrode, so you won't end up with rust stains on your wood siding.

Add a top trim board. Once the vertical boards are in place, install a top trim board (using battens), positioned horizontally and butted tightly against the soffit. This will cover the ¼-inch gap and give you something to butt the top end of the battens into.

Attach the battens. The battens should butt tightly against the top trim board and be flush at the bottom with the wider vertical boards. While the width of the battens is your choice, they should be wide enough to overlap the edges of the larger boards by at least ½ inch on both sides.

Caulk, then paint or seal the siding. By running a bead of caulk in the seams on both sides of the battens, you'll create a water-resistant seal that keeps water from seeping beneath the siding. Use paintable exterior latex caulk if you plan to paint the siding, or choose clear exterior latex caulk if you're going to apply a clear-coat seal to the siding.





CLADDING: TEXTURE COAT CLADDING SYSTEMS**TEXTURE COAT CLADDING SYSTEMS**

Brick, Weatherboard, Monolithic or Mud hut, Maintenance is the key to protecting your property investment.
“Paint before painting is due”

FLUSH-JOINTED FLAT FIBRE-CEMENT SHEET

Fibre-cement sheet is available in a range of sheet sizes and thicknesses and in a range of material compositions. The durability and performance of different systems varies considerably. Designers should ensure that the system that has been specified is fit for purpose, and designers and builders should be aware of all the system's installation requirements.

This is also usually a proprietary system that incorporates a range of compatible components and must always be installed in accordance with the manufacturer's instructions. The sheets are installed with a 3–5 mm gap between sheets and rebated sheet edges, and the joints are then taped over with a flush-jointed fibreglass tape and jointing compound. Under E2/AS1, these systems must be installed over a drained and vented cavity for all risk scores.

Expansion or movement control joints must always be incorporated in the finished cladding in accordance with the manufacturer's requirements.

Fibre-cement is a very absorbent material, and the sheets must be coated on the outside to make them weathertight and durable. This is done with a texture-finish plaster that incorporates a paint exterior finish, or the textured plaster must be coated with a paint exterior finish after it has been applied. Dark paint colours must be avoided to prevent thermal movement that can stress the sheet jointing system and the coating, as this can result in cracks that allow moisture to penetrate.

Some types of sheets come with all faces primed or sealed and with sealed edges, which makes them more robust and not totally reliant on the coating system.

Texture-coated flush-jointed fibre-cement sheets are used to create a monolithic finish on a building. The paint coating exterior finish creates a weatherskin and a face seal to the cladding that is very airtight. Uncoated sheet edges are very absorbent, and they will also wick water from adjacent surfaces such as waterproof decks and roofs. All exposed sheet edges must be well coated.

As the weathertight performance of these systems is very dependent upon accurate installation, consider the use of a manufacturer-approved specialist installer. (Warranty requirements often call for installation by a manufacturer-approved specialist.) Jointing and coating systems must always be installed by a manufacturer-approved specialist.

Check the manufacturer's specification regarding installation requirements for weathertightness risk.

Owners should also be made aware that these systems are very high maintenance and that the face seal coating system must be well maintained. Any faults in the cladding must be repaired immediately as they are intolerant of moisture penetration.

Texture-coated flush-jointed fibre-cement sheet systems are vulnerable to:

- thermal movement
- building movement
- poor installation (there are a number of high-skill processes involved in jointing and coating)
- joint cracking (followed by moisture absorption)
- poor surface coating application
- moisture absorption at poorly coated sheet edges
- lack of maintenance.



TOO MANY OBSERVATIONS TO LIST



TOO MANY OBSERVATIONS TO LIST



TOO MANY OBSERVATIONS TO LIST



TOO MANY OBSERVATIONS TO LIST



TOO MANY OBSERVATIONS TO LIST



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TOO MANY OBSERVATIONS TO LIST



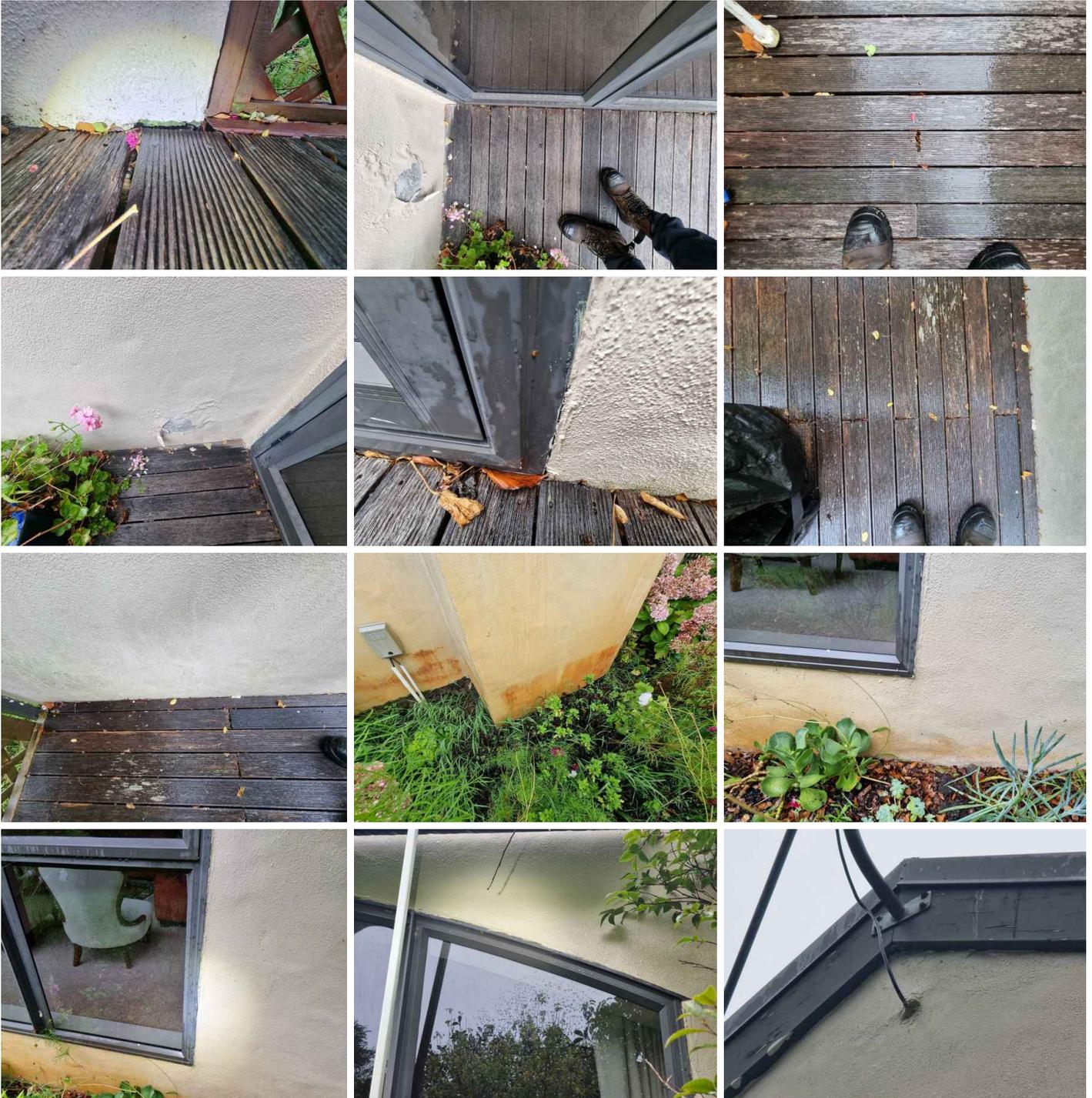
TOO MANY OBSERVATIONS TO LIST

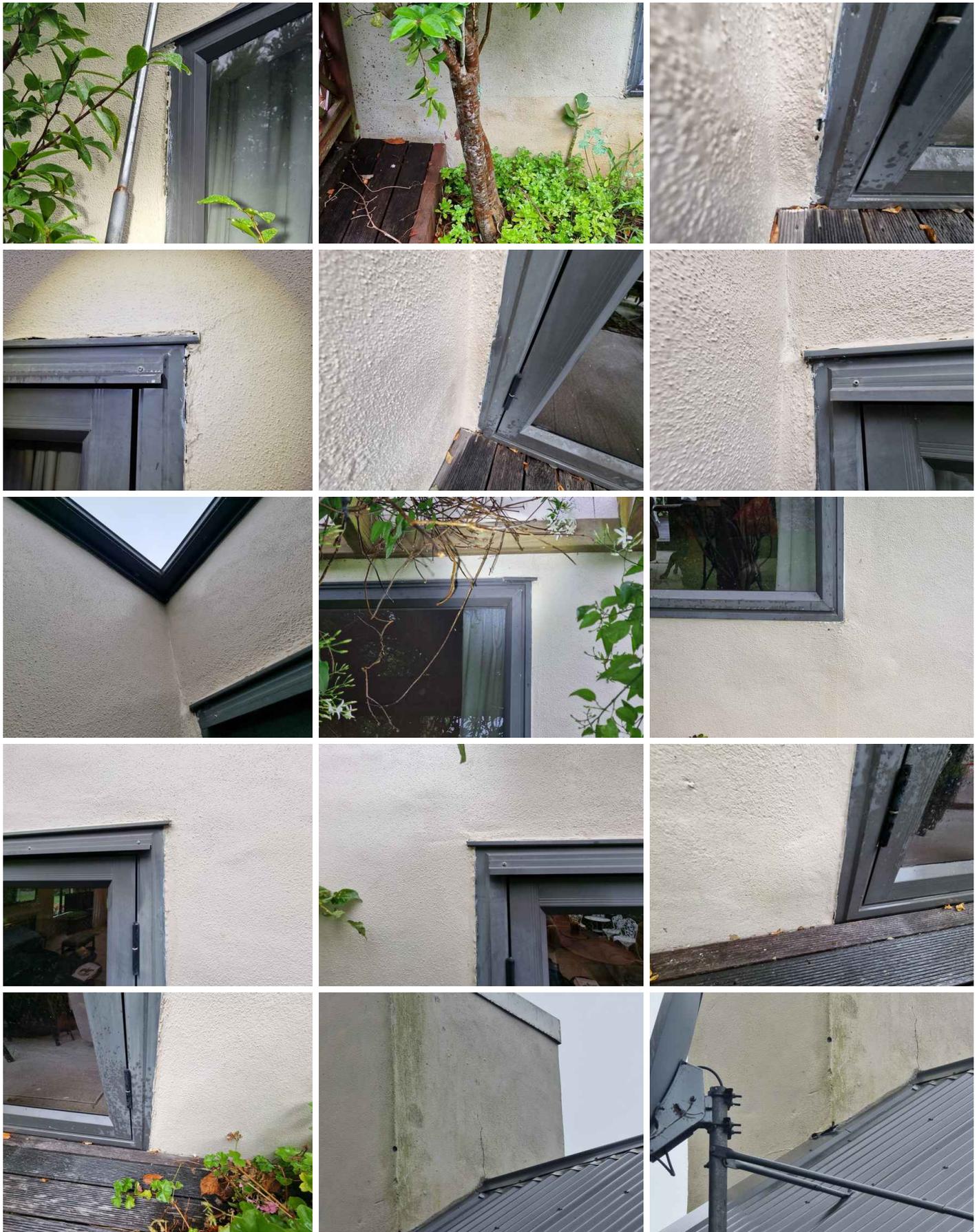
CLADDING: VISUAL OBSERVATION GALLERY

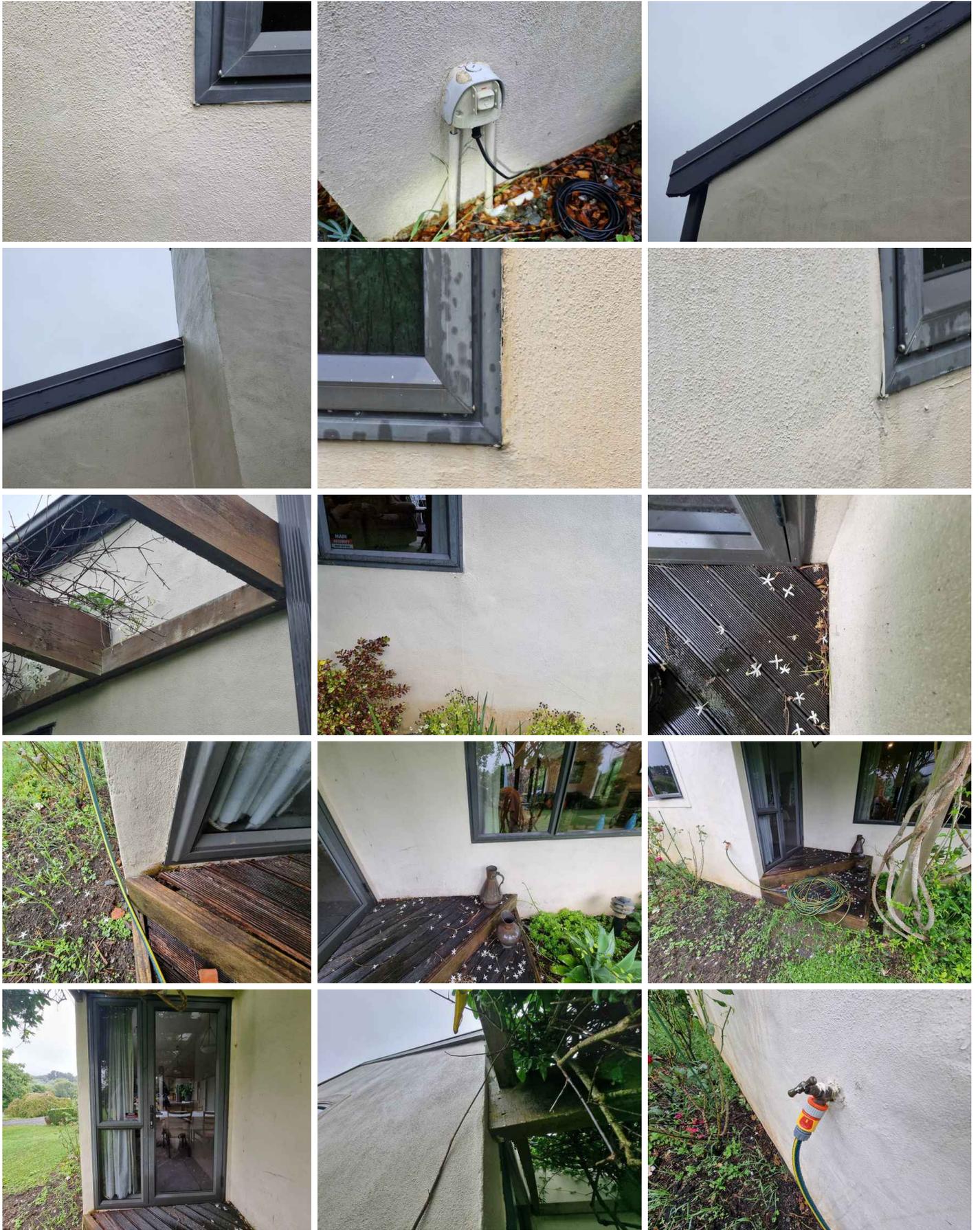
VISUAL INSPECTION GALLERY

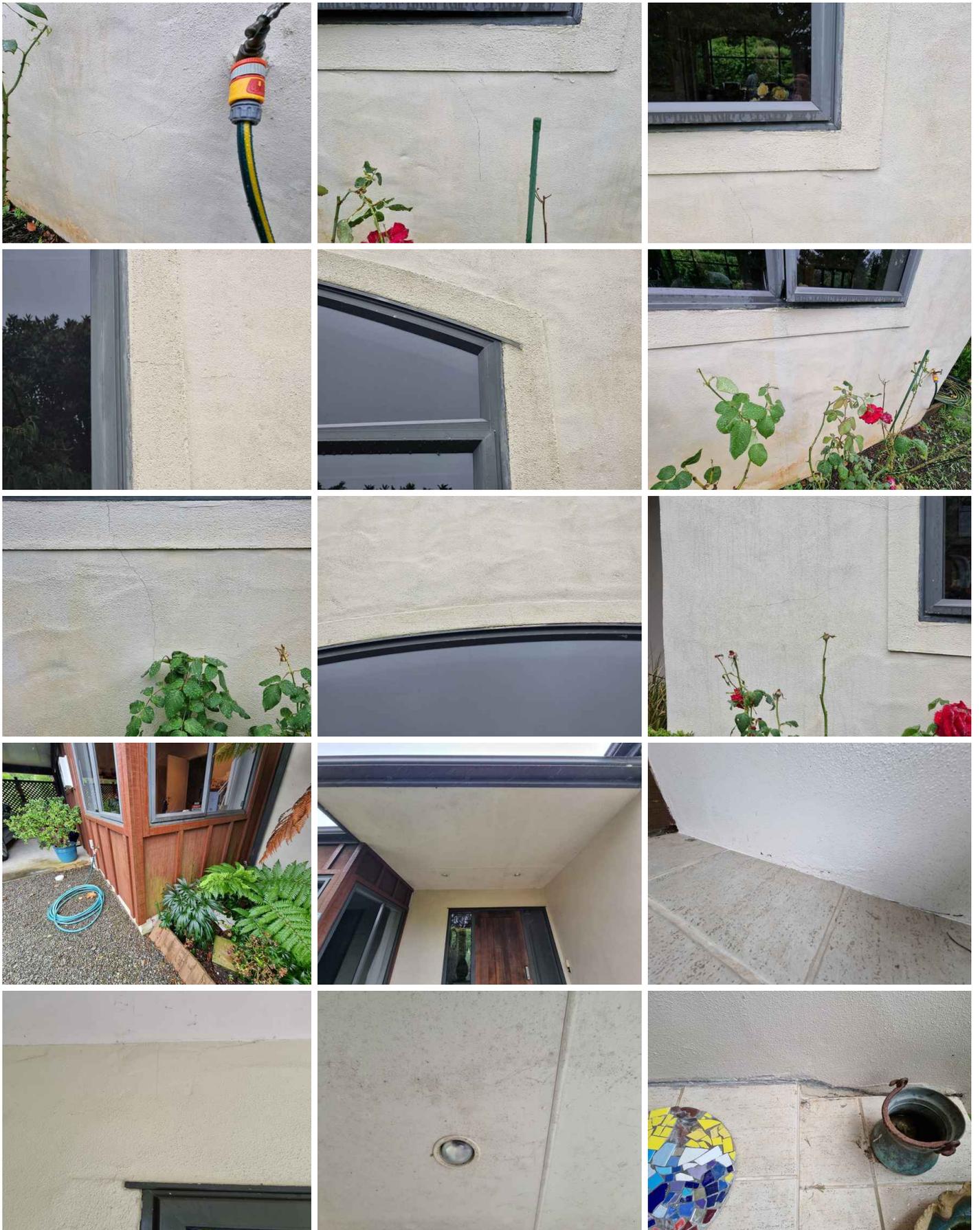


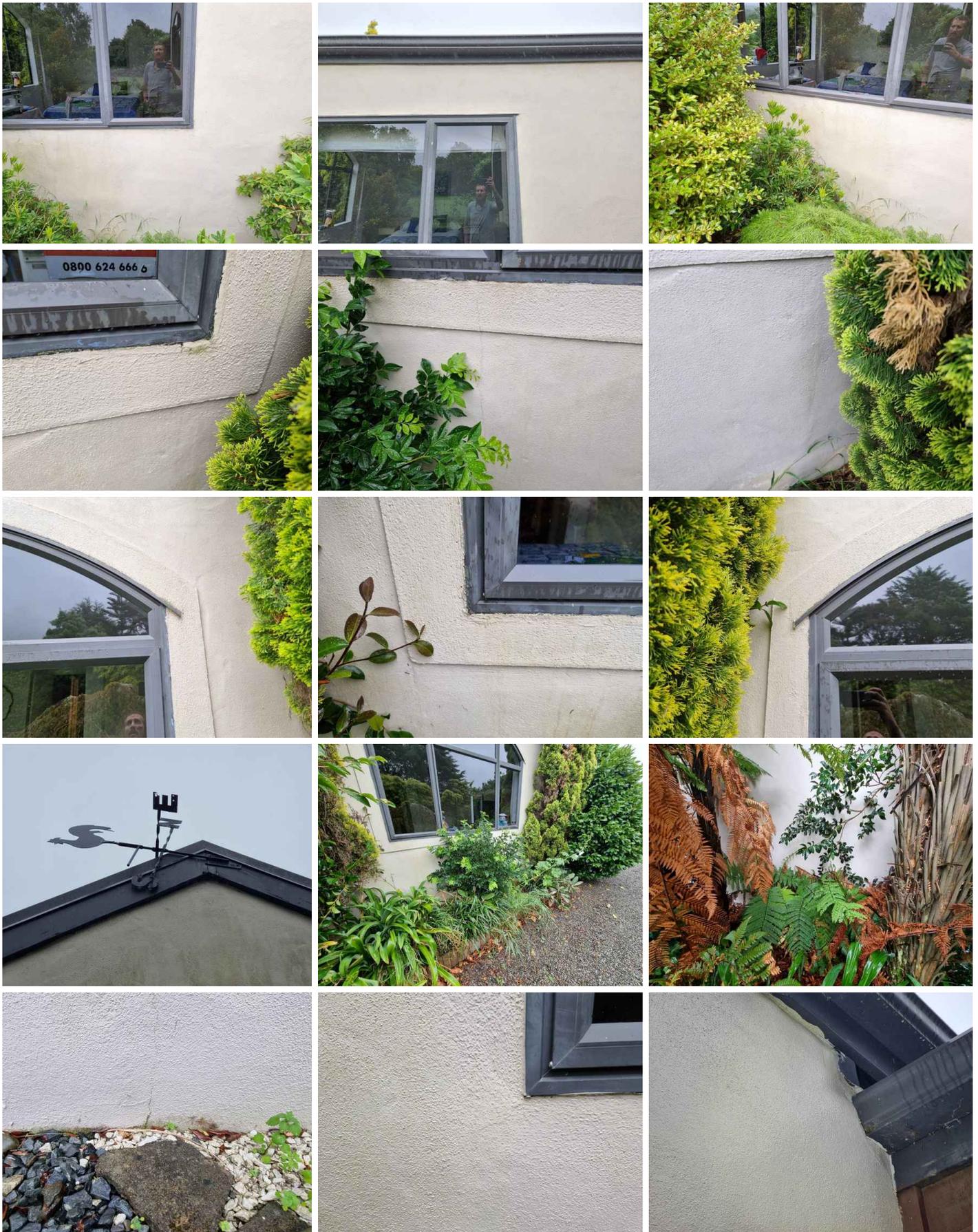
There may be defects identified both internally and externally of the room, indicating a higher chance of through wall moisture ingress. However, not all defects identified within an observation will be directly related to a current moisture ingress issue. We may have noted an area of "potential" risk to the cladding systems weatherproof envelope. The defect may require maintenance ,repair and/or re-sealing. We recommend any areas of moderate and/or major exposure be weather sealed by a cladding expert sooner rather than later.





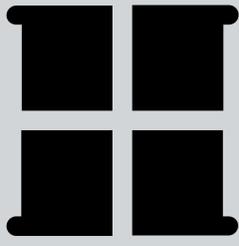








JOINERY : JOINERY SUMMARY

<h1>JOINERY SYSTEMS SUMMARY</h1>	
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GOOD CONDITION	GENERALLY GOOD	AVERAGE CONDITION	POOR CONDITION
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JOINERY SYSTEMS

TYPE:

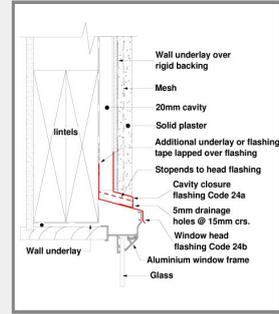
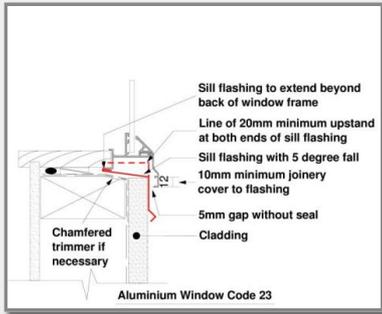
- ALUMINIUM JOINERY.

CONDITION:

- Joinery appears to be in a generally good to average overall condition.
- Joinery-glazing seals are diminished in some areas.
- Weathering and/or cracking around joinery.
- Moderate condensation/moisture damage to one or more sills. (Interior)
- Rot sighted in one or more areas.
- Substandard flashing design and/or flashing instal.

JOINERY : PLASTER/TEXTURE COAT CLADDING | JOINERY & FLASHINGS

PLASTER CLADDING | JOINERY & FLASHINGS

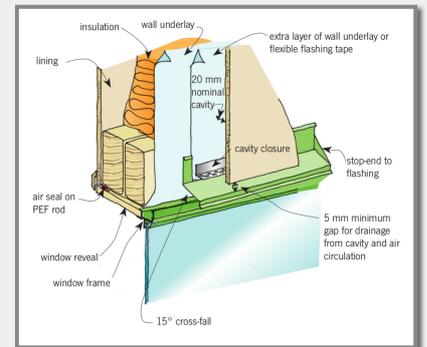
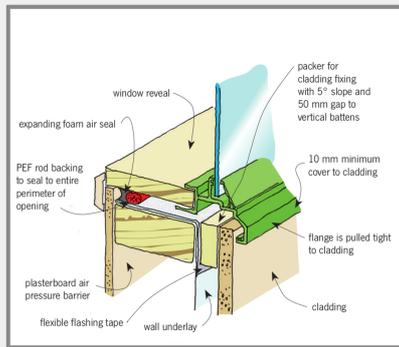
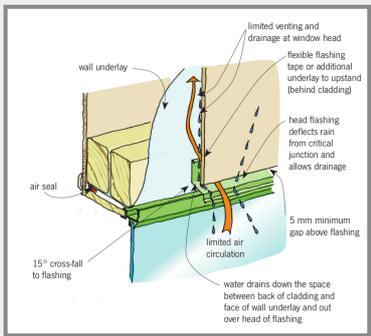


WINDOW HEAD The window head and joinery seals at either sides should have a complete seal to prevent water from draining back into the cladding and entering the wall cavities.

WINDOW SILLS Joinery sills on Stucco/ Texture Coat cladding systems are high risk for multiple reasons. We recommend being extra vigilant when performing your own home inspections, as it can take less than a year for moderate to major moisture damage to occur within your wall cavities around these areas.

DRAINAGE & VENTILATION A drainage and ventilation gap may be present between the bottom of the cladding above the flashing and the top of the sloped flashing. This opening will allow water to drain from the assembly and air to enter.

PLASTER CLADDING | JOINERY & FLASHINGS



ROOFING: EXTERIOR ROOFING SUMMARY

ROOFING SYSTEMS

GOOD CONDITION

GENERALLY GOOD

AVERAGE CONDITION

POOR CONDITION

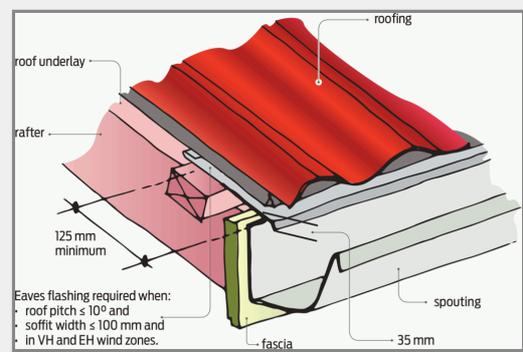
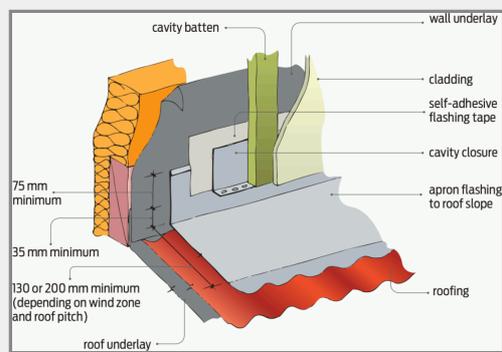
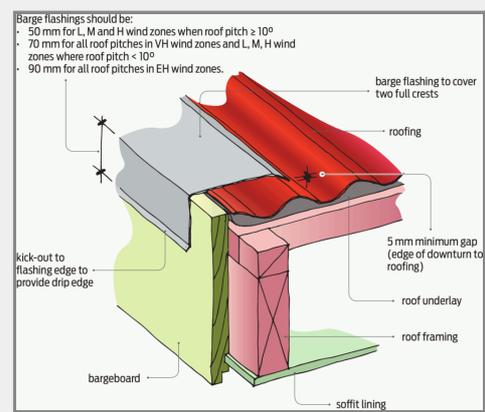
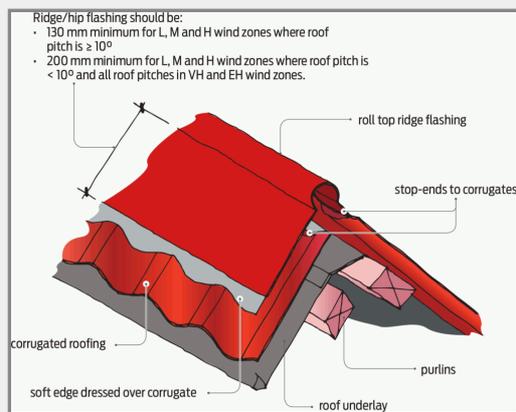
ROOFING WAS NOT INSPECTED DUE TO WEATHER

ROOFING: METAL ROOF COVERINGS

METAL ROOF COVERINGS

Metal roofing comes in long run and short run vertical panels, pressed metal tile detail or shingles resembling slate, tile and shake – and lasts about 60 years. Metal excels at sloughing off heavy snow and rain, won't burn and resists high winds. It is lightweight and can be installed over existing roofs. However, metal can be noisy during rainstorms, and may dent from hail. Average cost can range between suppliers, depending on type and style of metal, Corrosion also varies by material.

ALWAYS MONITOR THE CONDITION OF YOUR ROOF FLASHINGS



Flashings play a vital role in keeping water out of buildings. The type of roof flashings depends on what part of the roof is being flashed and what the roofing material is. Flashings are designed to stop water entering the building and should be designed to deflect water away. **Images provided are examples only**

UTILITIES PENETRATIONS

We recommend inspecting any roofing penetrations every six months or more. Moisture ingress around roofing penetrations can go unnoticed for some time, by the time you realize there is a problem the damage has already been done and the cost to repair has already gone through the roof. (Pun intended)

BOOT & CHIMNEY FLASHINGS

A boot flashing is a proprietary EPDM flashing designed to weatherproof cylindrical penetrations protruding from a roof or wall. The top is trimmed to form a tight weatherproof collar around the penetration, and the base is formed with a series of concentric rings to the underside and a malleable stiffener of aluminium which is dressed to conform to the shape of the roofing profile. It is generally top-fixed to the roof surface with screws or rivets, and sealant.

ROOFING: MEMBRANE FLAT ROOF COVERINGS**MEMBRANE FLAT ROOFING SYSTEMS**

Although flat roofs are quite commonly used in commercial and other industrial buildings, they are also used on many residential houses. Surprisingly, they are installed in both high and low rainfall areas. However, if you live in an area with heavy rainfall, we would advise they can be very problematic if not correctly maintained.

FLAT ROOF MAINTENANCE

Maintenance of membrane roofs is crucial to ensuring your home remains weathertight

The following information has been provided for the purpose of education, on what indicators to be aware of if your property has a membrane flat roofing system.

PONDING WATER

This happens when the roof has insufficient fall to promote run-off, or drains are blocked or not adequate to cope with water run-off, or not enough outlets. It can also be caused by settling of the substrate. If the problem is blocked drains, clear the blockages. If necessary, increase the size or number of drainage outlets. Place a piece of plastic or wire netting in the drain entrance to keep out leaves and other debris which might cause blockages. For major ponding, either lift the existing roof, reform and lay a new membrane or lay a new roof, with a greater fall, over the existing roof. This is a job for the professionals.

MEMBRANE SPLITTING

This can be due to movement in the substrate. Repairs depend upon the type of membrane used. Check with the manufacturer. Repair by installing a slip layer between the membrane and the substrate and replacing the membrane.

BUBBLES UNDER THE MEMBRANE

This can be due to excessive moisture coming from below or poor adhesion to the substrate. Cut the membrane and allow it to dry out before injecting adhesive underneath and patching. Check with the manufacturer to ensure you use compatible products. Address the cause of any moisture in the roof space.

DAMAGE TO THE WEATHER SKIN

This can be due to vehicle or foot traffic, or nails popping. For sheets, patch with matching material. If the area is subject to traffic, check that the surface is suitable for the amount and type of traffic. Consider laying loose paving or duckboards to protect the surface.

JOINTS LIFTING

This can be caused by adhesion failure, wear and tear, or water ponding. Follow the manufacturer's recommendations when carrying out any repairs. See ponding water for solutions to that problem.

10: INFORMATION | MAINTENANCE

Information

24/7

24 HOUR AFTER REPORT ASSISTANCE



0800 677 388 | 027 548 55
CPRNZ@OUTLOOK.COM

THERMAL IMAGING & MOISTURE METERING**THERMAL IMAGING & MOISTURE METERING**

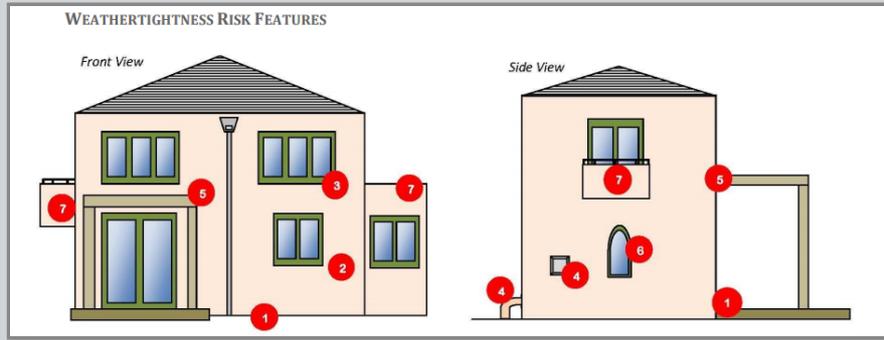
Our Unique Moisture Testing System works by having two person teams at every property inspection. Both inspectors have a thermal imaging camera and separate moisture detection equipment, these are calibrated upon arrival to site, with baseline resistance levels set at entry to each room. (On-site, room by room calibrations allow for the varied density levels and overall moisture absorption of each tested material and/or tested area) Each tool is used independently from the other and both inspectors follow the same procedure but with one in reverse order. (Senior Inspector uses Thermal imaging to identify where best to test for possible moisture ingress. Second Inspector uses Contact Moisture testing indications, that are then substantiated and traced with Thermal imaging)

How the double-blind system works: If one inspectors meter and/or camera indicates an area that requires further investigation, the inspector will flag the area through our software, thus notifying (at the end of inspection) the other inspector to double check the area with their independent moisture detecting equipment. This unique double-blind moisture inspection system was developed to eliminate incorrect identification of elevated moisture and equally confirm, trace and isolated moisture ingress to the affected areas only.

In some inspections, a vendor may attempt to distract us from the process as we near an area that they know to have issues. Our two-person inspection processes, with in app flagging for areas to revisit won't allow us to ever miss anything accessible. Other times vendors and/or tenants may try to disguise a problem by drying affected areas prior the inspection, installing new linings, painting over surfaces and/or placing furniture in front of problematic areas. As our standard inspections are non-invasive and is of a visual nature, we cannot move the vendor's furniture and/or belongings without explicit consent in writing. Therefore, we can't be held liable for unidentified observations that were concealed and/or disguised at the time of inspection. Obtaining a vendor statement about the house's moisture condition and a final pre-settlement inspection when the house is empty is highly recommended. If any areas of concern are sighted once the dwelling is vacant, Immediate notification about the newly identified problem areas to your solicitor and/or inspector would be strongly advised.

WEATHERTIGHTNESS RISK FEATURES

WEATHERTIGHTNESS RISK FEATURES



1. Ground Clearance: Inadequate clearance between the cladding and ground, paving or deck, or insufficient fall away from the building's perimeter. Clearance to solid ground (concrete, asphalt, paving, decking timber should be 150mm; clearance to soil should be 225mm).

2. Cracking in Cladding: Look for hairline cracks in the cladding, typically found close to windows and doors; or discolouration of cladding in these areas.

3. Joinery: Check for cracks along the joinery seals, between the joinery and the cladding.

4. Penetrations: Check all penetrations in the cladding (e.g.: around pipes, vents or meter boxes) for gaps and lack of sealant. Also check to ensure meter boxes are correctly flashed. Any lack of flashing or reliance on sealant may allow water to penetrate.

5. Pergolas: Pergola frame penetrating or direct fixed through the cladding may result in water ingress.

6. Windows: Check window flashings – round, shaped or corner windows are difficult to flash, increasing the risk of water ingress.

7. Enclosed Balustrades: These can result in a multitude of risks. (a) A lack of fall on the balustrade. (b) Hand railings attached through the plaster cladding. (c) Poorly applied waterproof membrane. (d) Insufficient drainage holes allowing water to pool after rain. (e) Lack of clearance between the cladding and deck floor.

8. Interior Signs: These can include swollen or cracked skirting boards or architraves; mould on the inside of curtains and window liners; floor coverings showing signs of water damage; swelling, cracking and popping of water liners.

CPRNZ MOISTURE INSPECTION SYSTEMS BY FLIR

FLIR MOISTURE TESTING EQUIPMENT



FLIR MR27 Moisture Hygrometer IGM™ Moisture Meter & MSX® IR Camera FLIR Lepton microbolometer

FLIR MR27 Moisture Hygrometer IGM™ Moisture Meter & MSX® IR Camera FLIR Lepton microbolometer



FLIR MR59 Ball Probe Moisture Meter

FLIR MR55 Pin Probe Moisture Meter

Commercial & Residential Building Inspections with FLIR

Missing, damaged, or inadequate insulation, building envelope air leaks, moisture intrusion, and substandard work are costly to residential and commercial building owners. Thermal imaging can help you quickly target the source of the problem so you can help customers make informed decisions on repairs.

MOISTURE IN THE HOME**MOISTURE IN THE HOME**

Every winter we hear and see stories of people living in extremely damp, mouldy conditions.

It's a symptom of living in older wooden houses in a temperate climate with inadequate heating, ventilation and insulation. However, it isn't just extreme cases that need to be fixed — most of us would be more comfortable if we reduced the dampness in our homes.

A damp home is an unhealthy home, there's no argument there. But it isn't just that — damp air takes more energy to heat than dry air, so it literally pays to remove moisture from your home.

Musty smells, mouldy walls and ceilings, weeping windows and damp clothes in wardrobes are all signs you need to reduce moisture and increase ventilation or heating.

Start by reducing dampness sources. Moisture gets into your home in many ways. One of the biggest sources is moisture evaporating up from the ground through your floors (as much as 40L per day per 100m²). Check for dampness under your house and fix any drainage, guttering, downpipe or plumbing problems — then consider installing a sealed moisture control sheet.

OTHER DAILY ACTIVITIES CAN ADD MOISTURE TO YOUR HOME

- Use pot lids when cooking to contain steam and a kitchen rangehood or fan that vents outside.
- Drying clothes inside can add 5L of moisture per load. Make use of good winter days to dry clothes outside. Using the fastest spin speed on your washing machine minimises the amount of drying needed. If you use a vented clothes dryer, ensure it vents outside.
- Cooking can add up to 3L a day. Use pot lids when cooking to contain steam and a kitchen rangehood or fan that vents outside.
- Showers and baths add up to 1.5L per day per person. Use an extractor fan when showering or taking a bath, or at least open a window. You can also fit a dome to your shower to contain moisture.
- Don't use unflued gas heaters to heat your home. Not only are they dangerous unless well vented, they add up to 1L of moisture to the air per hour.

SOURCE OF MOISTURE

Cooking	3.0/day
Clothes washing	0.5/day
Showers and baths	1.5/day (per person)
Dishes	1.0/day
Clothes drying (unvented)	5.0/load
Gas heater (unflued)	Up to 1.0/hr
Breathing, Active	0.2/hr per person
Breathing, Asleep	0.02/hr per person

Perspiration	0.03/hr per person
Pot plants	As much as you give them

Once the main sources of dampness are removed or reduced, you can think about ventilation. Just living and breathing adds moisture into the home, and we can't stop doing that. However, we can open windows to let a breeze through and vent moisture-laden air. It seems counter-intuitive to open windows on a cold winter day, but removing moisture will be healthier and make your heating more efficient. Get in the habit of airing your home every day or leaving windows slightly open.

Many of these tips are free or low-cost, but they can be highly effective. Further options start to get pricier.

You could consider a dehumidifier to target parts of the home that don't get enough airflow and remain damp. However, they aren't a magic bullet — the best dehumidifiers in our tests remove up to 9L per day at 12°C, but only desiccant models perform when it's colder. They are effective at drying smaller spaces, and act as a small heater too (they put out about 300 to 400W of heat).

MOULD

Mould is known to cause inflammation, allergies and infections.

It is a relatively straightforward process to remove mould from hard non-porous surfaces, such as glass or ceramic tile. However, removing mould from porous substances such as wallboard, wood and carpets is more difficult and more hazardous. This is because spores can be released when disturbing rotten material, which can cause inflammation, allergies and infections.

NEW HOMES

In new buildings, some moisture is trapped during the construction process. Wet timber may also have been used. The sequencing and timing of the construction process is important to avoid this and be sure to avoid storing construction materials out in the open where possible.

UNDER THE FLOOR

To prevent damp air from building up under the floor:

- Ensure there is sufficient ventilation. Vents are often obstructed by vegetation and should be cleared.
- Make sure water isn't draining from paths or gardens under the house. You may need to create channels or underground drains to divert surface run-off.
- Cover the ground area beneath your home with heavy-grade polythene, taped at the joints and trimmed neatly against the foundation walls.

VENTILATING

Let moist air out and dry air in by:

- Opening your windows – especially in wet areas such as bathrooms and kitchens. Even in winter, it's worth opening windows to let the house dry out.
- Closing doors to contain steam/condensation in wet areas.
- Using extractor fans in bathrooms and kitchens (but never vent them into the roof space above the ceiling or under the floor. Always vent them outside).
- Venting clothes dryers to the outside. A typical load contains 5 litres of water. This is released as water vapour, which can end up creating thousands of litres of damp air.
- Installing vents into windows.
- Using a forced ventilation system. That said, forced ventilation systems can be expensive to install. Try to address the cause of the moisture build-up instead.

INSULATING

- Block off draughts. Use draught seal tape around windows and doors. Block off unused chimneys, but ensure it's not an airtight seal as air needs to circulate into the chimney to allow drying if rain gets in.
- Insulate your ceiling. This helps keep your home warm and reduces condensation; 42% of heat loss is through the ceiling/roof. Older homes often don't have any ceiling or wall insulation.
- Consider installing double or secondary glazing.
- Check existing insulation is in good condition. As a guide, insulation should fill up to the top of the roof/ceiling joists.
- Insulate beneath the floor. The floor accounts for 10% of heat loss. You will need reasonable access under the floor and, in windy sites, the insulation will need to be protected by a separate layer of lining material, for example plywood or fibre cement.
- Well-fitted heavy curtains, drawn on winter nights, will help retain heat gained from the sun during the day.

HEATING

- If the indoor temperature is at least 7°C warmer than the outdoor temperature, it'll prevent condensation forming on colder surfaces. The World Health Organisation recommends an indoor temperature of at least 16°C in bedrooms and 18°C in living areas.
- Use low levels of heat all the time rather than high levels in short bursts. This reduces condensation.
- Don't use unflued gas or kerosene heaters inside – they release up to 1L of water per hour.
- In damp cupboards, consider installing a cupboard heater.

MONOLITHIC CLADDING MAINTENANCE

MONOLITHIC CLADDING MAINTENANCE

When it comes to monolithic cladding systems including EIFS, texture coated fibre cement sheeting, stucco and the like, maintenance of them can become complicated due to the following factors:

Cladding repair of this type of cladding is no longer the Builder's job. In fact very hard to find out who is the right professional for its maintenance, could be either the carpenter, painter, exterior plasterer, waterproofer or combination of them. Depends on the condition of a particular cladding, it is not easy to work out who is the right person to refer. When you use a wrong person to do this type of cladding maintenance, the job can turn into a disaster.

Maintenance can be significant or minor depending on the condition of the cladding system. When the cladding system is systemically defective the maintenance can mean a total re-cladding. In other cases, when not much wrong with a cladding system, maintenance can be a simple washing-off.

There is no clear line when the re-coating is due. Due to the high possibility of defective recoating job, we do not recommend carry out any total re-coating work to any monolithic cladding without expert's opinion. We have seen too many recoating disasters.

How can you tell if your cladding is due for maintenance?

No clear answer. But very common when somebody has realised that the cladding is due for maintenance, it is too late to realise that. So having your cladding checked every couple of years by an Expert is a wise way rather than decide yourself unless you are an Expert.

The main things to look for are: Places where water can get into the framing, and Signs that water has already got in. Water might get in through holes, cracks, loose cladding, fixings, joints that have separated, around doors and windows, anywhere where the sealing has failed, and any area where water can pool against the cladding.

Signs that water has got in include:

- Cracks and splits in the cladding or joints.
- Moisture staining or other visible water damage.
- Musty smells.
- Efflorescence (white chalky substance) at junctions or cracks.
- Mould, moss or colour degradation.
- Blistering or fading paintwork or bubbling or peeling wallpaper.

Vulnerable areas to pay attention to:

- Check around the house to make sure the cladding is at least 175mm above the ground (lawn or garden) or 100mm from paved surfaces.
- Check pergolas, cantilevered decks, fascias or guttering penetrating the cladding, poorly formed flashings and meter boxes which are not sealed or flashed.
- Check any areas where the cladding is penetrated by bolts, screws or handrails.

Some useful clarifications when thinking about maintenance of monolithic type cladding: Most of monolithic cladding coating systems are not "paints" normally applied on timber weatherboard, fence palings, garage doors and the like. Normally carpenters are not specialised on fixing a minor damage on monolithic cladding, nor painters. Interior plastering and exterior plastering are totally different trades. In fact since March 2012 exterior plasterer now need to be licensed. Based on the fact that most monolithically clad houses were built 10++ years ago, today most of those houses' wall claddings are due for total maintenance. There are very limited amount of companies are competent in doing that.

Significant amount of monolithic houses have wall cladding somehow integrated with roof parapet or even roof cladding and deck balustrade, which make maintenance more challenging. When there is no clear line between a leaky house and a non-leaker, furthermore the exterior wall cladding coating is regarded as a part of the whole weathertight system for this type of cladding, it can be hard to find any company specialised in maintenance of plaster system which can issue workmanship warranties.

For general maintenance, wash the cladding regularly. You may be required to wash at specific intervals to keep the warranty valid. Follow the manufacturer's recommendations. Washing the cladding will extend the life of the materials. It is particularly important for houses near the sea. To wash, use a soft brush and low-pressure hose, concentrating on areas rain does not reach, like walls sheltered by eaves. For sea spray, moss and lichen, you might have to use specific cleaning products or a 1-part bleach to 4-parts water solution and soft brush. Hose off residue with plenty of water and avoid using ladders around wet areas as much as possible. **Check with the manufacturer of your cladding and your local hardware store if you are unsure.**

Problems with monolithic cladding Many plaster cladding homes don't have a cavity system installed and worse still, they don't have treated timber framing. This can cause considerable problems over time. Water can get in through

cracks in the plaster, anywhere the sealant has broken down including windows, doors, pipes – the list goes on. Because the water can get in but can't get out, it can cause major problems which is why you see so many homes having to be completely re-clad costing hundreds of thousands of dollars. However, if you put in place a fairly simple maintenance schedule you should be able to protect your home from potentially catastrophic damage and expensive plaster crack repairs in the future. A monolithic clad building needs to be painted every 2-4 years so the cost of this must be factored into a buyers budget, because not painting this type of cladding is not a option. Also if the property appears like it hasn't been painted every 2-4 since being built.... It is going to have some weather tight issues somewhere. But please remember, ALL cladding systems will allow moisture ingress if MAINTENANCE is not kept up. You may be able to make minor repairs to cladding yourself, but for any monolithic cladding system you should contact the manufacturer for advice on the correct products to use. If you do not know which system you have, try to identify a similar system and follow the general advice from that manufacturer. We do **NOT** recommend you do any maintenance on these cladding systems yourself. If the cladding is a specialised system and less than 15 years old, it may still be under warranty. Again, contact the manufacturer if you know who this is. If your house is a leaky building, you'll need professional help. If the house is less than 10 years old, you may be able to make a claim under the Weathertight Homes Resolution Act 2002.

LEAKY BUILDINGS

Some homes with monolithic cladding types are at risk of being leaky buildings. Design and installation are critical factors in ensuring your home is protected from being a leaky building. If the design is inherently flawed, comprehensive work beyond maintenance may be required to solve the leaking long term.

If your home is at risk of being a leaky building, you need to be especially vigilant in your maintenance checks. Carry out a careful inspection of the cladding at least once a year.

For stucco check carefully for cracking of the plaster, check around flashings and other penetrations through the plaster and seek professional advice if you have any concerns.

For texture coated fibre-cement look particularly for cracks in the jointing. Cracks in joints should be raked out and reformed, do not attempt to seal with sealant. Contact an approved applicator to carry out repairs to the cladding. Check the waterproof coating to ensure re-painting is not required.

For EIFS pay particular attention to the corners of windows and exposed edges and anywhere that the paint finish might wear or crack. Do not attempt to repair with sealant but contact an approved applicator. It may

be that only certain areas require recoating. Many EIFS systems in New Zealand are specialised systems. If you can identify which system your home has, follow the manufacturer's specific instructions for maintenance and repair. If you cannot establish the specific cladding system at your home, the literature on the product which it most closely resembles will give you some generic guidance on maintenance.

Look for signs that moisture might be soaking up into the cladding, often indicated by darker colorations along the bottom edges of the cladding. If you have concerns that you may have a leaky home, you should seek professional advice.

Organizations that can provide further information on the leaky building issue include:

The government's Weathertight Homes Resolution Service. Call them on 0800 116 926 between 8.30am and 7.00pm (Monday to Friday).

Before you wash, check for cracks or damage.

**Do not use a high-pressure water blaster to clean your monolithic clad property. It *WILL* damage the cladding!
When you see cracks on the monolithic cladding surface, simply squeezing a tube of silicon is not the solution!!!
It's often the cause of a bigger disaster by allowing moisture damage to continue to worsen unchallenged.**

THE 4Ds PRINCIPLES**THE 4Ds**

The external walls of all buildings should be designed and built following the basic philosophy for managing water known as the 4Ds.

Deflection – water impacting on the building exterior deflects off the face of the cladding. Water is deflected away from critical junctions in the cladding by specific deflection devices on the exterior of the building (such as a window head flashing). The style of the building can also aid deflection of rain away from building walls.

Drainage – any water that penetrates the exterior cladding must be drained back out from within the cladding assembly, down drainage paths that are specifically designed into the wall assembly. Water must be able to drain off the face of the building.

Drying – not all water will drain within a wall assembly – some will be absorbed by building components. Air needs to be able to circulate within wall assemblies to dry water absorbed by components. Wind and sun will dry water off the cladding exterior.

Durability – all components of a cladding and wall assembly need to be appropriately durable for the conditions and New Zealand Building Code durability requirements.

11: LIMITATIONS & STANDARDS OF PRACTICE

Information

DEFINITIONS

DEFINITIONS KEY**EXTERIOR VISUAL DEFINITIONS****CLADDING CONDITION:**

- Cracks in the cladding found close to windows and doors.
- Sheet cracks and/or Joint expansion/contraction defects.
- Weathered and/or damaged sections of cladding.

JOINERY:

- Cracks along the joinery seals, between the joinery and the cladding
- Substandard flashings or increased risk of moisture ingress.
- Sub-standard glazing seals

SOFFITS AND EAVES:

- Substandard weather seal or increased risk of ingress.

PAINTED WEATHER SEAL:

- Discolouration and/or deterioration of claddings protective paint barrier.

PERGOLAS AND VERANDAS:

- Pergola and/or Veranda frame direct fixed to cladding.
- Cantilever penetration through buildings envelope.

TIMBER DECKING SYSTEM:

- Decking distance from cladding
- Decking height to interior floor level

- **Open balustrade condition.**

MEMBRANE DECKING SYSTEM:

- **Enclosed balustrade condition.**
- **Membrane decking condition.**

GROUND CLEARANCE:

- **Correct ground clearance and/or is the area clear of debris.**

LIMITATIONS**LIMITATIONS**

Limitations listed may or may not directly apply to the specific inspection. This list is to show some of the possible limitations faced during the inspection.

Area/s Not accessible. During the time of the inspection the inspector will check that insulation has been installed in accessible visual areas only. Septic system not inspected Tub / sink overflows not tested. Service size cannot be determined. The inspector is not required to and does not physically walk on roof surfaces in excess of a 3.6 metres, roofs inaccessible by an 3.6 metre ladder, covered by moisture, moss, debris or frost, or of any type not intended to be walked on (e.g. slate, clay tile, concrete tile, aluminium, wood shingles, wood shakes, etc). The inspector is not required to determine or report the age or life expectancy of any roof coverings. Roofs that cannot be accessed directly by the inspector may have defects which are not visible from the ground or the roof's edge. This report neither addresses future leaks nor does it certify that the roof is leak-free. The roof space was not inspected due to limited or no access visible at the time of inspection. Chimney flues not inspected. Insulation can not be seen in the wall cavity areas, unless looked at invasively. Service size could not be determined. Service wires could not be sized and fuse ratings (if applicable) could not be read. Structural inspection limited to visible and accessible areas of the foundation only, as per inspection package or client request. Buried tanks are not included in the inspection. Environmental Consultants can assist if this is a concern. Chimney inspection limited by inaccessibility of roof. Foundation inspection limited to visible and accessible areas only. NO ACCESS TO UNDER FLOOR. Security systems, including smoke detectors, may have been sighted but not tested. Storage in attic. Visual inspection not possible, or incomplete. The main disconnect cover was not removed. Car in garage. Visual inspection not possible, or incomplete. Continuity of air / vapour barrier not verified. Old sewer lines are prone to blockage. Roof inspected by ladder at the edge of the roof and/or by drone. The crawlspace was inspected by entering the area. The power was turned off throughout the house. Weather Distortion. Access Blocked. Due to typical construction constraints, evaluation of plumbing components is limited to readily accessible, visible areas. Furniture and/or other objects restricted access. No access to garage. Visual inspection not possible, or incomplete. Obstructed. The foundation is a slab-on-grade configuration. It is not possible to inspect under this type of foundation during a normal home inspection. The fuse block(s) were not pulled. The roofing inspection was limited by being too fragile to walk on. Typically, roofs covered in anything other than asphalt shingles should not be walked on as the covering is easily damaged. Box cannot be opened without shutting off the power or breaking the lock. Exterior wall(s) inaccessible. Visual inspection not possible. Inspection of chimneys, flues and vents is limited to readily accessible and visible external conditions only. Generally, flues, liners and footings are not visible for inspection. Limited access to sub floor, insulation may not have been sighted. Recreational facilities, such as spas, saunas, steam baths, pools, tennis courts, or exercise/entertainment equipment, is not inspected. The knee-wall space was not inspected due to limited or no access visible at the time of inspection. Unable to sight Drainage pipe work. Concrete tiles become porous over time and would need resealing to exterior or replacement. Gas shut off. Limited or no access to ceiling space - insulation may not have been sighted. No comments/recommendations made with respect to cosmetic finishes. Safety controls, whether automatic or manual, are not tested because these controls are rarely used by the homeowner (other than in an emergency) and activating these safety controls could damage the controls or equipment. These controls should be tested during annual servicing. Storage against exterior wall(s). Visual inspection not possible. There may be defects hidden behind the finished walls or insulation which are not visible at the time of inspection. The service box was locked by the utility. Finishes, insulation and/or storage, at the time of the inspection, conceal structural components which may, or may not, have defects. Flashing inspection limited by inaccessibility of roof. Heat loss calculation are not done as part of the home inspection. These calculations are usually done prior to construction in order to determine the required capacity of the heating system. There are specialists available if this is a concern. Main valve not located. Plants and/or Garden growth restricted access. Safety hazard to inspector. The system ground was not visible or was inaccessible. Vegetation (vines, shrubs, trees, etc) against the build restricted visual inspection. Complete heat exchanger is not visible or inaccessible. At most, only 10% of the heat exchanger is visible through visual inspection. There may be problems with the heat exchanger that are not apparent with this inspection. Main shut off valve not tested., New finishes, paint and/or trim hide historical clues to condition of house. No access to wall space. The roofing inspection was limited by slope (more than 3.6 metres). The service panel / main disconnect was not accessible. Access to the power service panel / main disconnect was restricted. Isolating / relief valves not tested. Restricted or no access under decks. Storage in some areas limited inspection. The roofing inspection was limited by restricted or no access. Absence of historical clues due to new paint/finishes. Ceiling Space sighted from manhole, very limited access. Concealed plumbing not inspected. Restricted or no access under steps. The attic was inspected by entering the area. The roofing inspection was limited by height. Not easily accessible. Electrical tests could not be performed and equipment / appliances requiring electricity could not be operated. Elevators not inspected. Limited pool inspection. The objective of our limited visual pool inspection is to determine if the pool and related equipment may benefit from a more thorough inspection by a qualified pool specialist. The scope of our inspection includes a limited visual inspection of the pool electrical system, primary circulation system, pool barrier system, the pool interior surface and surrounding deck. We do not dismantle components such as filters, pumps and heaters. We do not test water chemistry. We do not test or operate pool heaters, cleaning systems, control valves, chemical injectors or similar components. Radiator / Zone Values Not Tested. The roofing inspection was limited by trees. Water treatment equipment not tested or inspected. Concealed electrical components are not inspected. Fascia and soffits not fully accessible or visible. Inspection limited to visible, accessible areas only. Quality of chimney draw cannot be determined. The roofing inspection was limited by another building. Exterior inspection from ground level and/or by drone. Lead may be present in paint if the house was built prior to 1978. Testing for the presence of lead paint is not part of this inspection. Environmental Consultants can assist if this is a concern. Neither the condition

nor flow can be evaluated through underground or covered water or sewer/waste lines. The power was turned off in some areas of the house. Electrical tests could not be performed and equipment / appliances requiring electricity could not be operated. The roofing inspection was limited due to installed solar panels. Asbestos may be present in many building products and materials. Environmental Consultants can assist if this is a concern. The roofing inspection was limited by slippery, wet conditions. The system has been shut off or is otherwise inoperative. As turning the system on could result in an unsafe situation, the appliance(s) will not be able to be tested. Asbestos may be present in many building products and materials. Environmental Consultants can assist if this is a concern. Moisture problems may result in visible or concealed mould growth. Environmental Consultants can assist if this is a concern. Lead may be present in exterior paint if the house was built prior to 1992, or in the soil. Testing for the presence of lead is not part of this inspection. Environmental Consultants can assist if this is a concern. Step flashing installation and material restricted by the use of sealant. Assessment of flashings is limited to readily accessible and visible sections only. Most roof leaks will occur at the flashings. Poor weather may have limited the inspection process. Roofing/material type comments are intended to provide a general description of materials used. Actual materials were not verified

MOISTURE DETECTION INFORMATION

With limited time at each inspection, there could be areas of moisture not detected at the time of inspection. Any moisture readings and/or absence of elevated moisture levels, found at the time of inspection only apply to the date and time they were inspected. The opposite side of any moisture detection is also checked to identify possible causes and/or damage. Areas indicated to show moisture/thermal differences are usually first found with the FLIR Thermal Imaging Camera and where possible they are double checked and confirmed with a FLIR Pin Probe and/or FLIR Moisture Meter. The photos provided are to show the areas of concern, and not the definitive example of moisture. It is not possible to fully document our inspection process as it would take time and distract from the inspection system itself.

Thermal imaging: Thermal imaging does not show "moisture" As the name states, it identifies different temperatures. Thermal imaging is used to locate areas of concern that we can then investigate further. It is also used to track moisture through thermal patterns to its point of origin.

There could be areas with excessive wear and tear not visible at the time of inspection. Some individual items featured in an observation, may only be noted with a photo. This is because we deem the photo in itself explanation enough. If you decide to have the work quoted by the appropriate trades person/s. We have provided a list of contractors that we consider to be reliable, honest trades people. However we can not be held responsible for any quotes and/or work carried out by these trades people. You will find a list of generic and custom limitations that may have restricted or otherwise inhibited the inspection, located at the end of this report. **NOTE:** Any and all observations noted within this report apply to the time and date the of inspection only.

STANDARDS OF PRACTICE

LIMITATIONS & STANDARDS OF PRACTICE

The inspector shall perform:

a non-invasive visual examination of the readily accessible, visible, and installed systems and components of the building (listed in Section 4.0 [Standards of Practice](#)) moisture, temperature and humidity measurements ([refer to Section 4.8 Moisture, Humidity, and Temperature](#)) mold samples according to the IAC2 Mold Sampling Procedures ([refer to Section 5.0 IAC2 Mold Sampling Procedures](#))

The inspector shall report:

moisture intrusion, water damage, musty odors, apparent mold growth, or conditions conducive to mold growth; results of a laboratory analysis of all mold samplings taken at the building; and any system or component listed in Section 4.0 [Standards of Practice](#) that were not inspected and the reason(s) they were not inspected.

Interior

The inspector shall inspect: A. a representative number of doors and windows by opening and closing them; B. floors, walls and ceilings; C. stairs, steps, landings, stairways and ramps; D. railings, guards and handrails; and E. garage vehicle doors and the operation of garage vehicle door openers, using normal operating controls. II. The inspector shall describe: A. a garage vehicle door as manually-operated or installed with a garage door opener. III. The inspector shall report as in need of correction: A. improper spacing between intermediate balusters, spindles and rails for steps, stairways, guards and railings; B. photo-electric safety sensors that did not operate properly; and C. any window that was obviously fogged or displayed other evidence of broken seals. IV. The inspector is not required to: A. inspect paint, wallpaper, window treatments or finish treatments. B. inspect floor coverings or carpeting. C. inspect central vacuum systems. D. inspect for safety glazing. E. inspect security systems or components. F. evaluate the fastening of islands, countertops, cabinets, sink tops or fixtures. G. move furniture, stored items, or any coverings, such as carpets or rugs, in order to inspect the concealed floor structure. H. move suspended-ceiling tiles. I. inspect or move any household appliances. J. inspect or operate equipment housed in the garage, except as otherwise noted. K. verify or certify the proper operation of any pressure-activated auto-reverse or related safety feature of a garage door. L. operate or evaluate any security bar release and opening mechanisms, whether interior or exterior, including their compliance with local, state or federal standards. M. operate any system, appliance or component that requires the use of special keys, codes, combinations or devices. N. operate or evaluate self-cleaning oven cycles, tilt guards/latches, or signal lights. O. inspect microwave ovens or test leakage from microwave ovens. P. operate or examine any sauna, steam generating equipment, kiln, toaster, ice maker, coffee maker, can opener, bread warmer, blender, instant hot-water dispenser, or other small, ancillary appliances or devices. Q. inspect elevators. R. inspect remote controls. S. inspect appliances. T. inspect items not permanently installed. U. discover firewall compromises. V. inspect pools, spas or fountains. W. determine the adequacy of whirlpool or spa jets, water force, or bubble effects. X. determine the structural integrity or leakage of pools or spas.

The Inspector/s is Not Required and Shall Not Move items of furniture during the Inspection. We here by make note, that any issues concealed and / or not inspected due to the restrictions of any such household items, therefore not included in the final report are advised to be re-inspected at a time and cost agreed by parties involved. With our disclosure being that costing may well total the sum of a secondary report.

Kitchen

10.1 The inspector shall inspect: F. installed ovens, ranges, surface cooking appliances, microwave ovens, dishwashing machines, and food waste grinders by using normal operating controls to activate the primary function. 10.2 The inspector is NOT required to inspect: G. installed and free-standing kitchen and laundry appliances not listed in Section 10.1.F. H. appliance thermostats including their calibration, adequacy of heating elements, self cleaning oven cycles, indicator lights, door seals, timers, clocks, timed features, and other specialized features of the appliance. I. operate, or con rm the operation of every control and feature of an inspected appliance.

Attic: Ventilation and Insulation

The inspector shall inspect: A. insulation in unfinished spaces, including attics, crawlspaces and foundation areas; B. ventilation of unfinished spaces, including attics, crawlspaces and foundation areas; and C. mechanical exhaust systems in the kitchen, bathrooms and laundry area. II. The inspector shall describe: A. the type of insulation observed; and B. the approximate average depth of insulation observed at the unfinished attic floor area or roof structure. III. The inspector shall report as in need of correction: A. the general absence of insulation or ventilation in unfinished spaces. IV. The inspector is not required to: A. enter the attic or any unfinished spaces that are not readily accessible, or where entry could cause damage or, in the inspector's opinion, pose a safety hazard. B. move, touch or disturb insulation. C. move,

touch or disturb vapor retarders. D. break or otherwise damage the surface finish or weather seal on or around access panels or covers. E. identify the composition or R-value of insulation material. F. activate thermostatically operated fans. G. determine the types of materials used in insulation or wrapping of pipes, ducts, jackets, boilers or wiring. H. determine the adequacy of ventilation.

Foundation

The inspector shall inspect: A. the foundation; B. the basement; C. the crawlspace; and D. structural components. II. The inspector shall describe: A. the type of foundation; and B. the location of the access to the under-floor space. III. The inspector shall report as in need of correction: A. observed indications of wood in contact with or near soil; B. observed indications of active water penetration; C. observed indications of possible foundation movement, such as sheetrock cracks, brick cracks, out-of-square door frames, and unlevel floors; and D. any observed cutting, notching and boring of framing members that may, in the inspector's opinion, present a structural or safety concern. IV. The inspector is not required to: A. enter any crawlspace that is not readily accessible, or where entry could cause damage or pose a hazard to him/herself. B. move stored items or debris. C. operate sump pumps with inaccessible floats. D. identify the size, spacing, span or location or determine the adequacy of foundation bolting, bracing, joists, joist spans or support systems. E. provide any engineering or architectural service. F. report on the adequacy of any structural system or component.

Heating

The inspection of the heating system is in conjunction with the NZS4306:2005 Residential Property Inspection Standard guidelines. According to the guidelines, the home inspector will inspect the installed heating equipment, the vent systems, flues and chimneys where readily accessible.

Roof

The inspector shall inspect from ground level or the eaves: A. the roof-covering materials; B. the gutters; C. the downspouts; D. the vents, flashing, skylights, chimney, and other roof penetrations; and E. the general structure of the roof from the readily accessible panels, doors or stairs. II. The inspector shall describe: A. the type of roof-covering materials. III. The inspector shall report as in need of correction: A. observed indications of active roof leaks. IV. The inspector is not required to: A. walk on any roof surface. B. predict the service life expectancy. C. inspect underground downspout diverter drainage pipes. D. remove snow, ice, debris or other conditions that prohibit the observation of the roof surfaces. E. move insulation. F. inspect antennae, satellite dishes, lightning arresters, de-icing equipment, or similar attachments. G. walk on any roof areas that appear, in the inspectors opinion, to be unsafe. H. walk on any roof areas if doing so might, in the inspector's opinion, cause damage. I. perform a water test. J. warrant or certify the roof. K. confirm proper fastening or installation of any roof-covering material.

Exterior

The inspector shall inspect: A. the exterior wall-covering materials, flashing and trim; B. all exterior doors; C. adjacent walkways and driveways; D. stairs, steps, stoops, stairways and ramps; E. porches, patios, decks, balconies and carports; F. railings, guards and handrails; G. the eaves, soffits and fascia; H. a representative number of windows; and I. vegetation, surface drainage, retaining walls and grading of the property, where they may adversely affect the structure due to moisture intrusion. II. The inspector shall describe: A. the type of exterior wall-covering materials. III. The inspector shall report as in need of correction: A. any improper spacing between intermediate balusters, spindles and rails. IV. The inspector is not required to: A. inspect or operate screens, storm windows, shutters, awnings, fences, outbuildings, or exterior accent lighting. B. inspect items that are not visible or readily accessible from the ground, including window and door flashing. C. inspect or identify geological, geotechnical, hydrological or soil conditions. D. inspect recreational facilities or playground equipment. E. inspect seawalls, breakwalls or docks. F. inspect erosion-control or earth-stabilization measures. G. inspect for safety-type glass. H. inspect underground utilities. I. inspect underground items. J. inspect wells or springs. K. inspect solar, wind or geothermal systems. L. inspect swimming pools or spas. M. inspect wastewater treatment systems, septic systems or cesspools. N. inspect irrigation or sprinkler systems. O. inspect drain fields or dry wells. P. determine the integrity of multiple-pane window glazing or thermal window seals. The inspection of this home's exterior system is carried out in conjunction with the NZS4306:2005 Residential Property Inspection Standard.

According to the guidelines, the home inspector will inspect the exterior wall covering, flashing and trim; all exterior doors, attached decks, balconies, stoops, steps, porches, and their associated railings; the eaves, soffits, and fascias where accessible from ground level; the vegetation, grading, surface drainage, and retaining walls on the property when any of these are likely to adversely affect the building; walkways, patios, and driveways leading to dwelling entrances. The inspector will describe the exterior wall covering. The home inspector is not required to inspect screening, shutters, awnings, and similar seasonal accessories; fences; geological, geo-technical or hydro-logical conditions; recreational facilities; outbuildings; seawalls, break-walls, and docks; erosion control and earth stabilization measures.

See the NZS4306:2005 Residential Property Inspection Standard for more detail.

While every effort is made to find all areas of concern, some problems may go unnoticed. The inspection is not meant to be technically exhaustive. Please keep in mind that the inspector has your best interest at heart. Any repair items mentioned in this report should be considered before purchase. It is highly recommended that qualified contractors be used to further inspect or repair issues identified in this inspection report.

Gutters, downspouts, lot grading, window wells, walks, patios, driveways and landscaping all contribute to basement leakage. Basements can leak even if cracks are not visible. That being said, a basement, which is not leaking today, may leak at any time for any number of reasons.

This inspection is not a guarantee that the basement will never leak.

Fascia and soffits are generally inaccessible and not fully visible. Often, this area is prone to concealed rot, insect and pest damage.

Electrical

The inspector shall inspect: A. the service drop; B. the overhead service conductors and attachment point; C. the service head, gooseneck and drip loops; D. the service mast, service conduit and raceway; E. the electric meter and base; F. service-entrance conductors; G. the main service disconnect; H. panelboards and over-current protection devices (circuit breakers and fuses); I. service grounding and bonding; J. a representative number of switches, lighting fixtures and receptacles, including receptacles observed and deemed to be arc-fault circuit interrupter (AFCI)-protected using the AFCI test button, where possible; K. all ground-fault circuit interrupter receptacles and circuit breakers observed and deemed to be GFCIs using a GFCI tester, where possible; and L. smoke and carbon-monoxide detectors. II. The inspector shall describe: A. the main service disconnects amperage rating, if labelled; and B. the type of wiring observed. III. The inspector shall report as in need of correction: A. deficiencies in the integrity of the service entrance conductors insulation, drip loop, and vertical clearances from grade and roofs; B. any unused circuit-breaker panel opening that was not filled; C. the presence of solid conductor aluminium branch-circuit wiring, if readily visible; D. any tested receptacle in which power was not present, polarity was incorrect, the cover was not in place, the GFCI devices were not properly installed or did not operate properly, evidence of arcing or excessive heat, and where the receptacle was not grounded or was not secured to the wall; and E. the absence of smoke detectors. IV. The inspector is not required to: A. insert any tool, probe or device into the main panelboard, sub-panels, distribution panelboards, or electrical fixtures. B. operate electrical systems that are shut down. C. remove panelboard cabinet covers or dead fronts. D. operate or re-set over-current protection devices or overload devices. E. operate or test smoke or carbon-monoxide detectors or alarms F. inspect, operate or test any security, fire or alarms systems or components, or other warning or signaling systems. G. measure or determine the amperage or voltage of the main service equipment, if not visibly labeled. H. inspect ancillary wiring or remote-control devices. I. activate any electrical systems or branch circuits that are not energized. J. inspect low-voltage systems, electrical de-icing tapes, swimming pool wiring, or any time controlled devices. K. verify the service ground. L. inspect private or emergency electrical supply sources, including, but not limited to: generators, windmills, photovoltaic solar collectors, or battery or electrical storage facility. M. inspect spark or lightning arrestors. N. inspect or test de-icing equipment. O. conduct voltage-drop calculations. P. determine the accuracy of labeling. Q. inspect exterior lighting.

Plumbing

The inspection of the plumbing system is in conjunction with the NZS 4306:2005 Residential Property Inspection Standard guidelines. According to the guidelines, the home inspector will inspect the interior water supply and distribution systems including all fixtures and faucets, the drain, waste and vent systems, the water heating equipment, the flues and chimneys where applicable, the fuel storage and fuel distribution systems where applicable and the drainage sumps, sump pump and related piping.

The inspector will describe the water supply, drain, waste and vent piping materials, the water heating equipment including the energy source, and the location of the main water and fuel shut-off valves.

The home inspector shall operate the systems using normal operating controls. Safety and shut-off controls (eg. valves), whether automatic or manual, are not tested because these controls are rarely used by the homeowner (other than in an emergency) and activating these safety controls could damage the controls or equipment (usually by leaking).

The inspector will open readily accessible panels provided by the equipment manufacturer or installer for routine maintenance by the homeowner.

The home inspector is not required to inspect the interiors of flues or chimneys which are not readily accessible, the clothes washing machine connections, wells, well pumps, or water storage related equipment, water conditioning systems, solar water heating systems, fire or lawn sprinkler systems, or private waste disposal systems. (Septic tank).

The inspector is not required to determine whether water supply and waste disposal systems are public or private, or the quantity or quality of the water supply.

See the NZS 4306:2005 Residential Property Inspection Standard for more detail.

While every effort is made to find all areas of concern, some problems may go unnoticed. The inspection is not meant to be technically exhaustive. Please keep in mind that the inspector has your best interest at heart. Any repair items mentioned in this report should be considered before purchase. It is highly recommended that qualified contractors be used to further inspect or repair issues identified in this inspection report.