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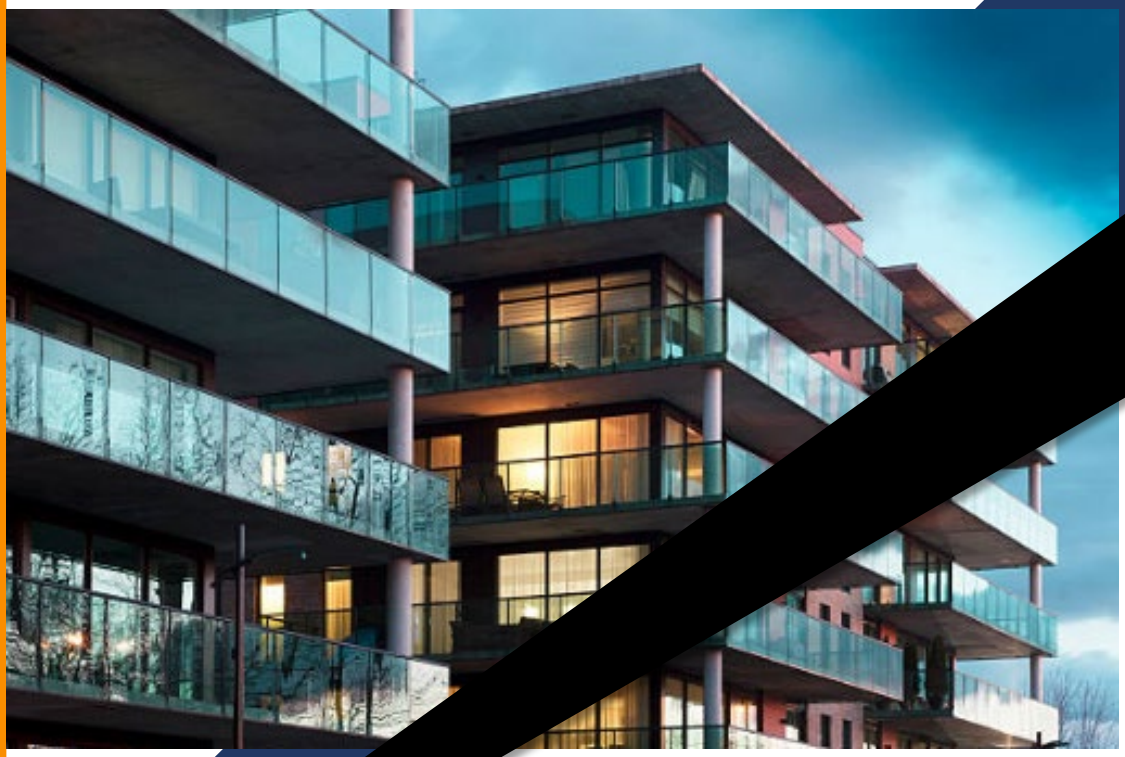

# Water Ingress in Strata Building

Issue 2

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# Water Ingress in Strata Buildings:
# How to Stop the Damage Before It Spreads

If you live in or manage a strata building, this situation may sound familiar.

**A ceiling stain appears after heavy rain.**

**Water begins seeping through an internal wall.**

**A musty smell lingers in the corridor or basement.**

**A contractor applies sealant somewhere outside.**

The issue seems fixed.

For a while.

Then the stain comes back.

This cycle is extremely common in strata buildings. A small leak appears, a quick repair is attempted, and the problem returns months later.

The reason is simple: **water ingress rarely stays small.**

Once water enters the building fabric, it can travel, spread, and slowly damage structural elements. What begins as a minor leak can eventually lead to significant remediation works.

The good news is that most water ingress issues are manageable when addressed early. The key is understanding **why they occur and how to respond properly**.

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# Why Water Ingress Is So Common in Strata Buildings

Depending on when a Building was constructed, they would have been built to meet the codes, standards and materials applicable at the time. While many of these buildings are structurally robust, several factors make them more vulnerable to water ingress today.

## 1. Ageing Waterproofing Systems

Most waterproofing systems were never designed to last 30 years. Original membranes installed in areas such as:

- Balconies
- Roofs
- Planter boxes
- Podium decks
- Bathrooms and wet areas

were typically expected to perform for **20–30 years**.
After time, deterioration is normal. Membranes become brittle, sealants fail, and protective coatings wear away.

Even if previous repairs were carried out, they may have addressed symptoms rather than the underlying system failure.

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## 2. Natural Building Movement

All buildings move slightly over time.

Movement occurs due to:

- Thermal expansion and contraction
- Concrete shrinkage
- Structural loading changes
- Settlement of foundations

These movements can create small cracks and separations around building joints, windows, and slab edges.
While these openings may be tiny, **water only needs a very small gap to enter**.

Once it does, gravity and capillary action allow it to move through the building structure.

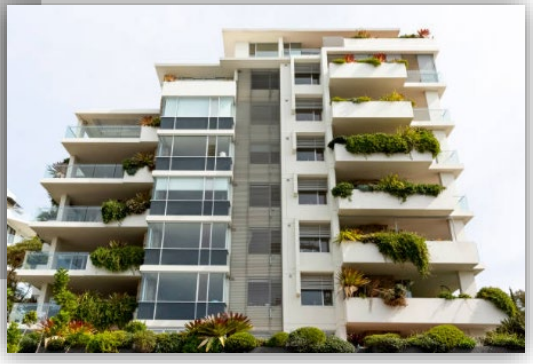
## 3. Construction Methods of the Era

Many older buildings feature construction methods that are durable but not always watertight by modern standards.

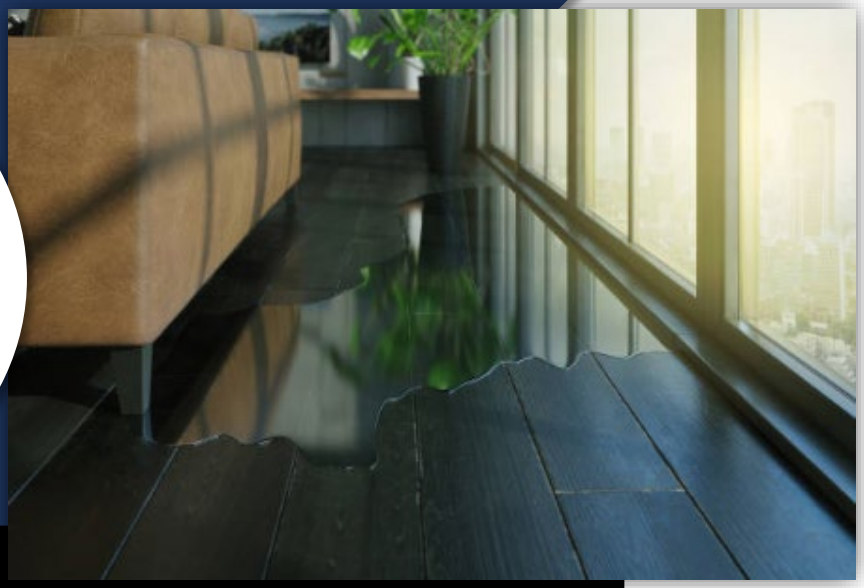
Typical characteristics include:

- Solid brick façades without modern cavity drainage systems
- Limited waterproof detailing around balconies
- Exposed concrete slab edges
- Minimal flashing systems around windows

These designs can perform, but once materials begin ageing, the building becomes more susceptible to water penetration.



# The Hidden Path of Water



One of the most frustrating aspects of water ingress is that **the visible leak is often not the source of the problem**.

Water rarely travels in a straight line.

Instead, it can move through:

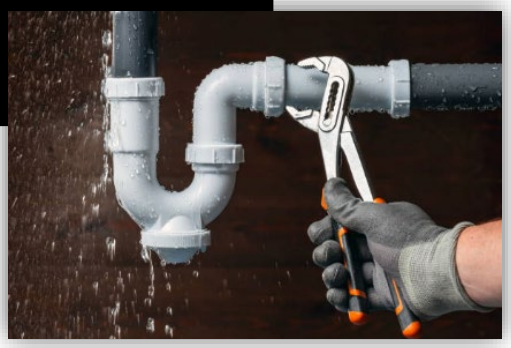
- **Concrete slabs**
- **Brick cavities**
- **Structural beams**
- **Service penetrations**

For example, a failed roof membrane may allow water to enter at the top of the building but appear as a stain two levels below.

This is why many reactive repairs fail.

A contractor may seal the area where water appears, but if the actual entry point is somewhere else, the leak will return.

Without proper investigation, repairs become trial and error.
And trial and error is expensive.



# Early Warning Signs Committees Should Never Ignore

Water ingress usually begins with subtle signs. Recognising these early indicators can prevent significant damage later.

## External Warning Signs

Look for:

- **Mould and staining**
- **Mineral salt leaching**
- **Cracking in concrete balconies or façades**
- **Rust staining along slab edges**
- **Failed sealant around windows**
- **Peeling or bubbling paint**
- **Rotting of timber elements**

These signs often indicate moisture is already entering the structure.

# Internal Warning Signs

Inside the building, water ingress may show up as:

- **Ceiling stains**
- **Damp internal walls**
- **Mould growth**
- **Warped skirting boards**

Persistent humidity or musty smells These issues are often the first signs residents notice.

# Structural Warning Signs

More advanced deterioration may include:

- **Concrete spalling (chunks of concrete breaking away)**
- **Exposed corrosion of reinforcement steel**
- **Rust marks running down concrete surfaces**

These symptoms suggest water has reached the structural elements of the building.

At this stage, repairs become significantly more complex.

# What Happens If Water Ingress Is Ignored

Water does not simply evaporate and disappear.

Once inside the structure, it continues to degrade materials over time.

## 1. Reinforcement Corrosion (Concrete Cancer/Spalling)

Concrete contains steel reinforcement that gives the structure strength. When water reaches this steel:

- **The steel begins to corrode**
- **Rust expands in volume**
- **Pressure builds inside the concrete**
- **The concrete cracks and breaks away**

This process is often referred to as **concrete cancer/spalling**.

If caught early, repairs may be relatively straightforward. If left untreated, large sections of concrete may require replacement.

## 2. Internal Damage

Water ingress can also affect interior building components, including:

- **Plaster and wall/ceiling linings**
- **Timber framing**
- **Electrical systems**
- **Floor coverings**

In some cases, prolonged moisture can create conditions for **mould growth**, which affects indoor air quality and resident health.

## 3. Escalating Repair Costs

The financial difference between early intervention and delayed remediation can be substantial.
For example:

- **A minor waterproofing repair might cost a few thousand dollars.**
- **Extensive façade remediation can cost hundreds of thousands across a building.**

The longer water remains inside the building, the more damage it can cause.

# Why Patch Repairs Often Fail

When a leak appears, the natural response is to repair the visible problem.

Common reactive repairs include:

- **Applying sealant to cracks**
- **Patching small areas of concrete**
- **Repainting affected surfaces**

These repairs can provide temporary relief.

However, they often fail because:

- **The root cause has not been identified**
- **Water entry points remain active**
- **Ongoing building movement reopens the repaired area**

Without understanding **how and where water enters the building**, repairs simply treat symptoms.

This leads to a cycle of repeated repairs and growing frustration for owners and committees.

Further, Building compliance obligations have strengthened in recent years, particularly in NSW under the Design and Building Practitioners Act 2020. Remedial works now require:

- **Clear documentation**
- **Defined design responsibility**
- **Greater oversight**
- **Higher compliance standards**

Therefore patch repairs not only often fail, they most likely will not meet compliance requirement obligations.

# What Proper Investigation Looks Like

The first step to stopping water ingress is understanding **exactly where the water is coming from**.

A structured building investigation typically involves several stages.

## Building Condition Assessment

This involves a detailed inspection of key building elements such as:

- **Façades**
- **Balconies**
- **Roofing systems**
- **Waterproofing membranes**
- **Sealants and expansion joints**

The goal is to identify deterioration patterns and likely entry

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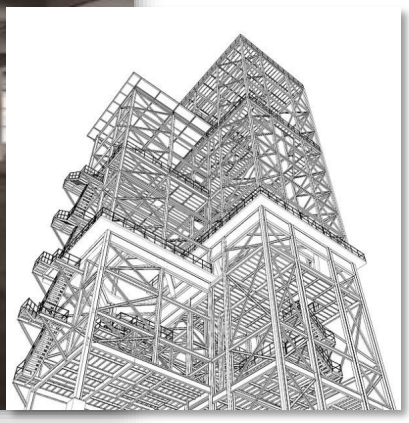
# Moisture and Defect Mapping



Specialists may map moisture levels across the building to understand how water is travelling through the structure.

This process helps determine:

- **The origin of water ingress**
- **The pathways water follows**
- **Areas most at risk of deterioration**

# Targeted Testing

Depending on the building, additional testing may include:

- **Flood testing of balconies or roofs**
- **Infrared moisture scanning**
- **Moisture meter testing**

The objective is simple: **diagnose the problem before prescribing the solution**.

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# The Benefits of Early Intervention

Buildings that investigate water ingress early often experience three major benefits.

## 1. Better Cost Control

Early repairs can be planned and staged over time.

Emergency remediation rarely allows for this flexibility.

Planning allows committees to align works with their financial capacity.

## 2. Protection of Structural Integrity

Stopping water penetration early protects:

- **Masonry structures, timber structures and concrete structures**
- **Reinforcement steel**
- **Building façades**

Preventative repairs are usually far less disruptive than large-scale structural remediation.

## 3. Greater Confidence for Owners

Clear reporting and structured repair planning help owners understand:

- **What the issue is**
- **What needs to be done**
- **When works should occur**
- **Upfront cost of works**

This transparency reduces uncertainty and helps committees make confident decisions.

# A Practical 3-Step Approach for Strata Committees

If your building is experiencing recurring leaks, a simple framework can help move from reactive repairs to proactive management.

## Step 1 – Commission a Professional Condition Assessment

Start by identifying:

- **Root causes of water ingress**
- **Areas most at risk**
- **Immediate safety or damage concerns**

Without this clarity, decisions are based on guesswork.

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## Step 2 – Develop a Prioritised Repair Strategy

Once the problem is understood, repairs can be staged logically.

Typical staging may include:

- **Immediate protective works**
- **Short-term waterproofing upgrades**
- **Medium-term remediation of deteriorated areas**

This creates a clear roadmap for the building.

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## Step 3 – Align Repairs With Financial Planning

The final step is integrating repair plans with:

- **Sinking fund forecasts**
- **Levy planning**
- **Long-term asset management**

This ensures works are completed in a financially sustainable way.

# What a Well-Maintained Building Looks Like

Buildings that address water ingress early often experience noticeable improvements over time.

These buildings typically have:

- **Stable sinking fund forecasts**
- **Fewer urgent repairs**
- **Lower long-term maintenance costs**
- **Well-maintained façades and common areas**
- **Greater buyer and tenant confidence**

Maintenance becomes predictable rather than reactive.

And committees can focus on long-term stewardship rather than emergency problem-solving.

# Water Always Wins—Unless You Plan for It

Water ingress is one of the most common issues affecting older strata buildings.

But it is also one of the most manageable when addressed early.

Ignoring small leaks rarely saves money.

It simply delays the inevitable and increases the eventual repair cost.

Buildings that investigate early gain something far more valuable than a temporary fix:

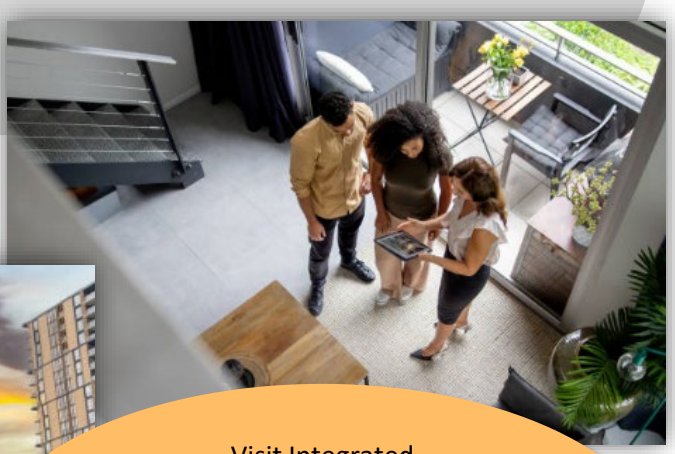
- **Clarity about the problem**
- **Control over repair planning**
- **Confidence in decision-making**

Before your next strata meeting, consider asking one simple question:

**"Do we understand where water is entering the building — or are we only fixing where it appears?"**

The answer often determines whether a building continues reacting to leaks… or begins preventing them.

If your building has recurring water ingress issues, gaining clarity early can make all the difference. A structured building assessment is often the first step toward protecting both the structure and the long-term value of the property.



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