

Building Defect Analysis Report

Root Cause Analysis

Report Generated: 1/28/2026, 10:34:22 AM
Property ID: P6
Historical Data Analyzed: 9 records

Identified Root Causes

1. Defective Plumbing or Waterproofing in Bathroom

Confidence: HIGH

Reasoning: Consistent water damage and mold in R2 ceiling near bathroom indicate a persistent leak from plumbing or waterproofing.

Affected Systems:

- Plumbing
- Waterproofing
- Building Envelope

2. Differential Foundation Settlement or Structural Instability

Confidence: HIGH

Reasoning: Repeated large diagonal cracks with recent movement suggest differential foundation settlement or structural instability.

Affected Systems:

- Foundation
- Structural Frame
- Building Envelope

Ø=Üj Immediate Action Recommendations

1. Immediately investigate and repair the source of the water leak in the bathroom area affecting R2, including opening ceilings/walls for inspection.
2. Engage a qualified mold remediation specialist to safely remove all mold and water-damaged materials in R2 and ensure proper drying.
3. Consult a structural engineer to assess the cause and extent of structural movement indicated by cracks in R1 and recommend appropriate repairs.
4. Monitor crack progression in R1 using crack gauges to determine if movement is ongoing before any cosmetic repairs are attempted.

