Infrared Scanning:

The Smart Way to
Reveal Hidden Building
Envelope Issues and Protect
School Facility Budgets

School is back in session, and just as exams uncover what students need to work on, infrared scanning "tests" your facility's roofs and building envelopes to expose pockets of hidden moisture-before they escalate into major problems.

Hidden Moisture is Your Roof's Worst Enemy

A visual inspection alone can't detect what's happening beneath the surface. Moisture trapped under the roof membrane is one of the leading causes of premature roof failure—and it's often invisible until it becomes a major leak.

Infrared scanning provides a non-invasive, highly accurate way to detect hidden moisture. At night, sensitive thermal imaging identifies temperature differences across your roof. Wet insulation retains heat longer than dry areas, creating a clear thermal "hot spot" map of moisture infiltration.

The result: a clear picture of where issues exist and what action steps are needed—so you can plan proactive, cost-effective repairs.



Infrared Scanning Methods



Trained technicians use thermal cameras to map areas of hidden roof moisture. This non-invasive test is ideal for quickly locating areas of wet insulation over large roof areas. Infrared scans work best at night under certain weather conditions (ie: clear skies, dry roof, sufficient

daytime solar heating). While surface temperature anomalies (such as HVAC exhaust, shading, or ponding water) should be considered, the resulting scans are very good at revealing the presence of unwanted moisture. In more complex situations, nuclear scanning technology, which measures hydrogen density, may be used. Moisture probes and core sample testing can then be used to verify the extent of damage.

Drone (UAV) Scanning



Drones equipped with high-resolution infrared and video cameras take moisture detection to the next level. UAVs can scan rooftops and are especially suited to scanning the entire building envelope faster, more safely, and more thoroughly than

manual methods. This technology can identify energy loss, wet insulation, façade cracks, or even rooftop safety hazards—without sending crews onto the roof at night.



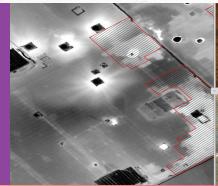


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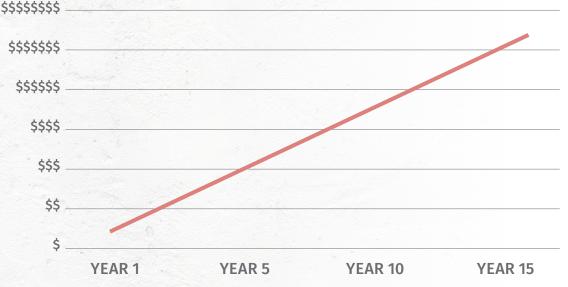
The Cost of Not Knowing Your Roofs' True Conditions

Moisture doesn't stay put—it spreads. Left undetected, small areas of wet insulation can multiply quickly in a short number of years, turning what could have been a manageable repair into a multimillion-dollar capital expenditure. Here's an example of the potential cost impact of undetected moisture issues:





THE COST OF AVOIDANCE OVER TIME





CUMULATIVE WET INSULATION OVER TIME, SHOWN IN RED

Learn More If you are a member of a purchasing cooperative, you already understand the benefits of procuring products and services through cooperative contracts that allow you to streamline procurement with assured value and transparency. If you'd like to learn more about cooperative purchasing options for roofing and building envelope projects, please scan the QR code or visit tremcoroofing.com/industries/cooperative-contracts.



WHY BE PROACTIVE?



Identify and address problems early before leaks disrupt learning.



Reduce downtime and extend the life of your roof.



Save significantly on repair and replacement costs.



Keep your facility energy efficient and safe.

Simply put, scanning for moisture is an easy, non-destructive way to find out where your roofs and building envelopes need a little help. Armed with this knowledge, you can fix hidden issues now before they become major issues in the future.





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