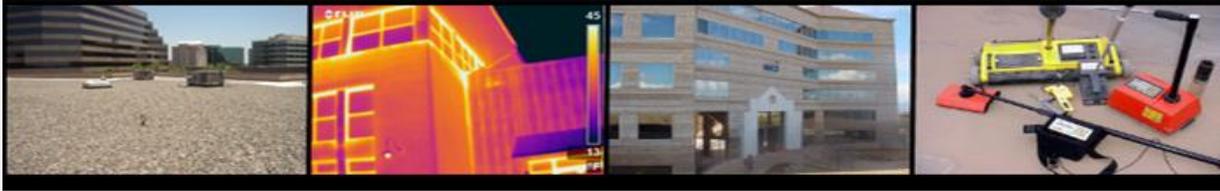


TechniScan, LLC

Listening to Your Needs, Responding with Solutions



Lockheed Martin Case Study: How TechniScan's Building Envelope Solutions Prevented Catastrophic Financial Loss



**Identified Interior
Moisture Problem**



**Crafted Building
Envelope Solution**



**Saved Potentially
Billions of Dollars**

Challenge:

Lockheed Martin, a global security and aerospace company, discovered staining along an interior wall adjacent to a Clean Room. Since satellites were being assembled in the Clean Room, determining the cause for the moisture and preventing its entry into the Clean Room. Logically, the initial reaction was to look for and repair any potential roof issues to the roof and parapet walls. Several attempts at repair by a roofing contractor proved unsuccessful.

TechniScan Building Envelop Solutions in Action:

TechniScan was contacted to investigate the moisture intrusion issue. We performed test cuts in the roof assembly and along the base flashings of the perimeter walls and installed data loggers on the interior of the Clean Room to verify the reported humidity levels over a two-week time frame.

This revealed that the pressurized interior of the building was forcing the moisture laden air to the exterior of the Clean Room where the original staining was located. Test cuts were also performed on the wall cavity. The Clean Room had been repurposed from a non-humidified area without addressing possible condensation. There was no vapor barrier on the interior of the Clean Room.

We performed calculations to locate the dew point in the wall, and once discovered, we were able to design a foam insulation system on the exterior of the concrete twin-T wall. This caused the dew point to fall on the exterior of the building, not the interior and prevented the necessity of demolition of the interior drywall of the Clean Room to install a vapor barrier.

Result:

TechniScan prevented the possibility of moisture settling on any of components of the multiple Lockheed Martin satellites, each worth over 1 billion dollars, during the assembly phase and prevented permanent damage to the building.

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