



# Electronic Membrane Integrity Testing VS Flood Testing

On a 20,000sf TPO, PVC, Hot or Cold-Applied Roofing system

## High Voltage Sweep

### Low Voltage Vector Mapping

A roof clear of dunnage and debris can be tested using BOTH protocols in less than one day.

No roofing company personnel are required for the High Voltage protocol and only one is need for the Low Voltage protocol.

Electronic membrane testing actually tests the water-tightness of the membrane.

Even pinhole sized penetrations are detected.

Vector Mapping boundary cables and screens are left in place for future testing minimizing both time and expense in case problems arise later on.

## Flood Testing

The same roof takes one day to build dams and to flood and another 48 hour waiting period to see if water manifests itself into the building.

It takes several or more roofing company personnel to construct dams, monitor the flooding and inspect the interior for leaks.

Flood testing only tests the decks ability to hold water for a short period of time.

A 48 hour flood test may not be sufficient to allow water to manifest itself into the facility via small penetrations.

Flood testing provides no such advantage.

**Case Study:** In construction time is of the essence. This particular project was no exception. The membrane had to be certified quickly so that other work could be finished. Electronic vector mapping was the solution and testing was about to begin when voices of the past reared their heads and insisted upon flood-testing. Explaining to them that electronic testing was a replacement for flood testing fell on deaf ears. Flood-testing would be performed BEFORE electronic testing.

Dams were built, drains plugged, faucets turned on and 12 hours later the roof was covered with water. That night temperatures plummeted to 28 degrees. The water froze. It wouldn't unfreeze for an entire week. Time and money were lost. Once the roof thawed it was pronounced that no water had infiltrated the facility and that the flood-testing, although producing costly delays, was successful. However, Electronic Low-Voltage Vector Mapping was then performed and 7 penetrations in the membrane were found along with a substantial amount of water that had found its way into the envelope.

Roof Analyzers, LLC

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