

**ELECTRIC FIELD VECTOR MAPPING
EFVM[®] TEST REPORT**

Performed for

**ABC Company
123 Main Street
Anytown, USA**

Test Date: October 00, 0000

Our Job Number: 00-0000.0

October 00, 0000

Mr. John Smith
ABC Company
123 Main Street
Anytown, USA 00000


**Electric Field Vector Mapping
EFVM® Test Report
Our Report Number: 00-0000.0**

Dear Mr. Smith:

Here is our completed report in hard copy format for the Electric Field Vector Mapping Test performed for ABC Company at their facility located at 123 Main Street in Anytown, USA, on October 00, 0000.

Thank you for this opportunity to serve you. If you have any questions or if we can be of further assistance, please feel free to contact us.

Very truly yours,



Mary F. Molle

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Introduction to EFVM[®] Testing

Electric Field Vector Mapping, or EFVM[®], is a type of non-destructive testing used to locate a breach or void in a waterproofing membrane.

An electrical potential difference is set up between the membrane surface, which is wet, and the structural deck, which is earthed or grounded. If there are any leaks, then a small electric current will flow across the membrane surface and down through the puncture to the earthed structural deck. The electric current will flow directly to the puncture or breach.

Using an EFVM[®] Potentiometer connected to two probes, the direction of the current can be identified and, thus, by moving the probes, any puncture can be pinpointed. Because of the high electrical resistance through the membrane, the magnitude of the electrical current is relatively small. The direction in which the current flows will lead the inspector to the puncture.

If the membrane surface is dry at the time when the test is scheduled, then it is essential that the membrane surface be thoroughly dampened before setting up the test equipment. If the structure is sloped and free draining, the water supply needs to be continuous.

The Vector-9 conductor wire is set out in rectangular loop around the perimeter of the area to be tested. A pulse generator connected to the conductor wire delivers a 40- volt potential every three (3) seconds for a period of one second. The certified inspector, working within the perimeter of the test area, places the reading probes onto the membrane surface. Data from the EFVM[®] Potentiometer is collected and analyzed in real time. Based on the data collected, the inspector will follow the direction of the current flow shown until the location of the breach or void can be pinpointed.

The findings are documented with photos and locations. These results are on the following pages of this report. If any repairs were made at the time of the inspection, that information will be noted in the report.

Upon completion of the test, the Vector-9 conductor wire is left fastened in place on the roof. A test lead with an identification tag is attached to the lead to help facilitate future testing. Instructions were also provided to the site representative that it is to the benefit of all parties if the Vector-9 conductor wire is left in place.



EFVM[®] Report

Date of Test: October 00, 0000
Testing Method: EFVM[®] (Electric Field Vector Mapping)

International Leak Detection performed the EFVM[®] test of the waterproofing membrane installed at the ABC Company facility located at 123 Main Street in Anytown, NY. The EFVM[®] test was requested to confirm the integrity of the waterproofing membrane prior to the installation of the overburden.

To perform the EFVM[®] test, the Vector-9 conductor wire was placed on top of the membrane and the surface was dampened to create the conductive field plate. As the test progressed, satisfactory readings were observed.

The test location is described as follows:

- Area 107.0, test area is a balcony at the tenth level.

The EFVM[®] potentiometer did not detect a current flow that would indicate a possible membrane breach.



Summary

The EFVM[®] test confirmed that the membrane was isolating the potential difference. Therefore, the membrane was deemed watertight at the conclusion of the EFVM[®] test.



Photo Documentation



Building Overview



**Overview of
Area 107.0**



**Overview of
Area 107.0**



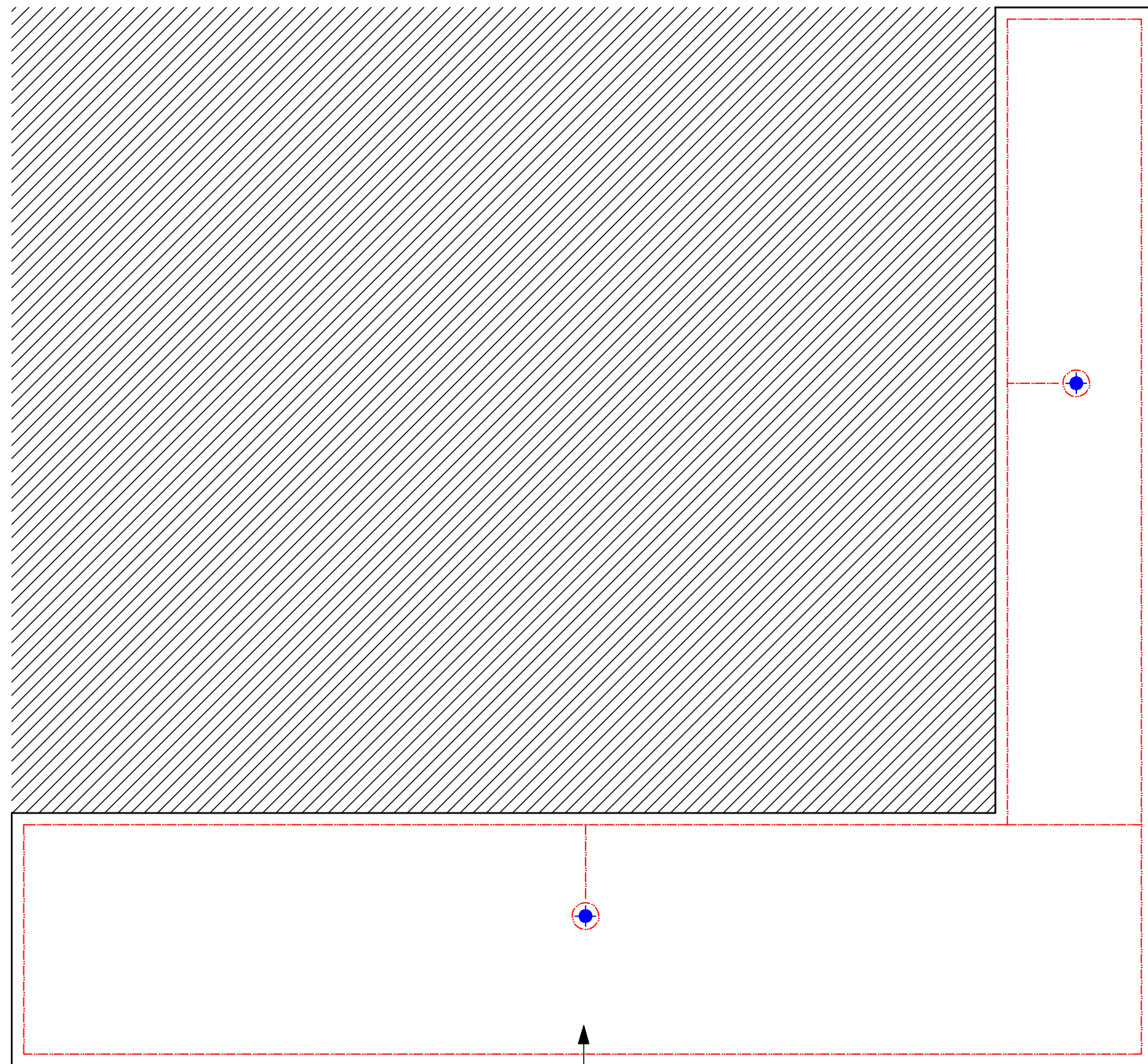
**Overview of
Area 107.0**



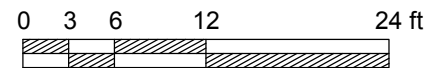
**Overview of
Area 107.0**



**Overview of
Area 107.0**



Area 107.0



1:150



Test Date
10-00-000

Legend

- Projections**
- Plumbing Stack ● Hot Stacks
 - Pitch Pan ○ Metal Sleeve
- Drainage**
- Drain ● Scupper
- Miscellaneous**
- EFVM Conductor Wire
 - Ⓛ EFVM Lead Location
 - Expansion Joint
- Problem Indicators**
- ⚡ Ridging
 - Ⓛ Membrane Breach
 - ◆ Blister
 - XXX Flashing Problem



Electric Field Vector Mapping
EFVM®

Drawing - Test Results

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Client
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123 Main Street
Anytown, USA

Project
ABC Company Project
123 Main Street
Anytown, USA

Notes

DWG. By 061	Project # - A
Scale NTS	Date 10-00-0000

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