

NDT&E Tech Brief

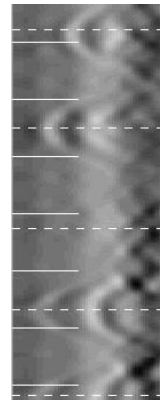
Adaptive Reuse

Because we work in building restoration and forensics, we often adapt NDT&E equipment, procedures, techniques, and standards developed for other uses.

Leak Investigations: Equipment used for quality assurance of new construction needs to be modified. We add extension rods to handheld EI meters and add ropes and remove the legs from spray racks. The features we need for leak investigations are missing from the latest IR camera models, so we maintain and refurbish older models. The single standard for leak investigations isn't prescriptive or proscriptive, so we rely on experience in creating our own job-specific procedures and techniques.

Roof Moisture Surveys: The equipment is intended for evaluating existing roofs, but it has taken the standards organizations some time to catch up. Of the five techniques, the first was standardized in 1997, the second in 2012, two more were standardized in 2014, and the fifth technique was finally standardized in 2015 – and that technique is the one we have been recommending for most roofs here in New York City for over ten years!

Structural Investigations: Here we are taking equipment developed for geology and transportation and applying it to building restoration and forensics. The GPR standard was written by the ASTM Committee on Soil and Rock and antennas are available for use on concrete – they also work on CMU and masonry (as in this radargram of missing truss mesh in a brick-and-mortar parapet wall). Similarly, a covermeter (which only has a British standard), is sold for use with rebar, but is an excellent tool for evaluating the quality of wall tie installation. Of course, no one sells a “sounding hammer” or a “terra cotta tapper,” so we keep a stock of hammers of different weights, sizes, and materials for such use.



We will continue to adapt, reuse, experiment, and innovate. For a list of all of the tests that SUPERSTRUCTURES provides (and what standards we use or adapt), click [here](#).

Barry Drogin, Director of Non-Destructive Testing & Evaluation

SUPERSTRUCTURES ENGINEERS + ARCHITECTS

A&E Website: www.superstructures.com

NDT&E Website: www.superstructures-te.com

E-mail: bdrogin@superstructures.com

14 Wall Street, 25th Floor, New York, NY 10005

212.505.1133 x1311

646.437.1311 direct