



Building Diagnostics
& Property Science

StructureScan

GPR Technology for Construction and Forensic Applications

What is GPR?

Ground Penetrating Radar (GPR) technology uses measurements of reflected energy and arrival times to determine the presence and location of materials based on each material's conductivity, or dielectric constant.

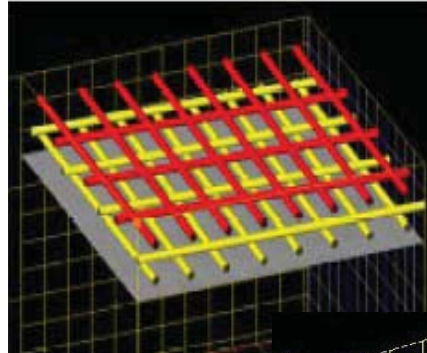
StructureScan is:

- The latest advancement of subsurface radar to nondestructively examine concrete structures.
- A quick, easy, safe and less costly way to locate buried obstructions in concrete structures prior to coring or cutting.
- Faster, safer and cheaper than radiography (x-ray).
- More convenient, only requiring one-sided access.
- Fully FCC compliant.



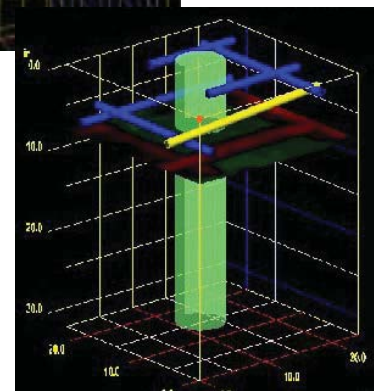
StructureScan Features

- Accurately locate rebar, tendons, conduits (PVC and metal), voids, and measure slab thickness.
- Locate targets to a depth of 18 inches and more in concrete
- Detect and map the relative concrete condition for rehabilitation planning
- Combine separate 3D grids into a single grid



*GPR Data of
two rebar
mats*

*Green line shows a
clear location to drill*

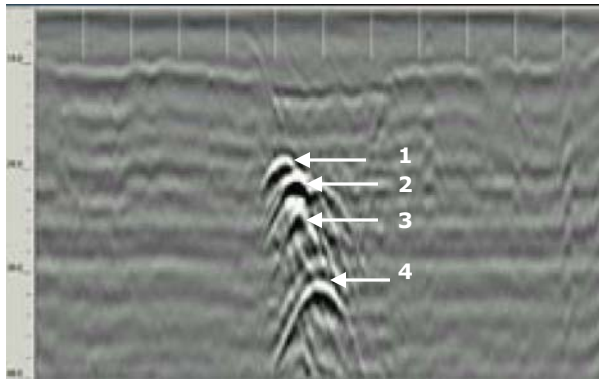


StructureScan Benefits:

- Test concrete thickness up to 36-inches
- Locate rebar, post tension or pre-stress cables, conduit (PVC & metal)
- Locate voids in under slabs or CMU
- Our personnel are the most experienced in the SE United States and with our equipment we deliver the most accurate data results
- Locate and mark targets quickly and in real time
- Internal Battery
- No site hazards or need to close off work areas as with X-Ray
- Durable components
- FCC approved for floor, wall and ceiling use
- Manufactured in the USA

SUBSURFACE STRUCTURES & UTILITIES

The more that you know about the underground conditions of your project the safer it will be to excavate. While not everything can be identified by GPR (some soils can obscure features), we can usually define the buried structures and utilities.



UtilityScan Data showing four pipes grouped in a trench

Why Use GPR?

- Locate utilities with real time data display
- Easy to use system for quick surveys with light weight equipment
- Built in the USA
- Fully FCC compliant

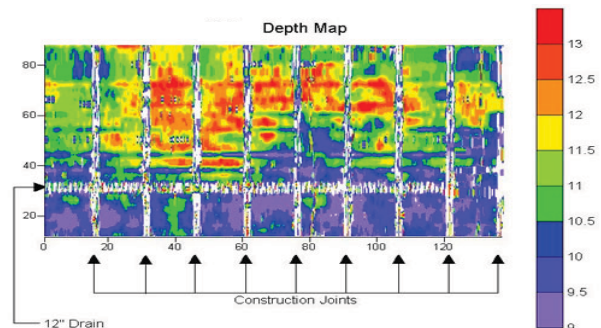
What Can GPR Do For You?

From a **Geotechnical** standpoint, GPR can be used for:

- Sinkhole Investigations
- Subsidence Investigations
- To Map Underground Voids or Soft Soils
- Site Reconnaissance
- Erosion Investigations
- Land Development Site Surveys
- Structure Contour Mapping of Subsurface

Environmental Capabilities:

- UST Investigations
- Mapping Contaminant Plumes
- Mapping Migration Pathways
- Mapping Soil Geometry
- Phase II ESA Support
- 3D Clay Surface and Thickness Mapping
- Landfill Permitting and Design Mapping
- Water Table Mapping



GPR can also be used for Engineering Purposes by:

- Forensic Studies
- Utility and Pipe Location
- Locate and Map Steel Reinforcements
- Void Detection Beneath Slabs, Along Retention Walls, Along Seawalls, and Along Pipelines
- Support for Structural Engineering Investigations

