



With Penetradar's *IRIS* Ground Penetrating Radar you can "see" through solid pavement material such as asphalt, concrete and soil, detecting bridge deck delamination, voids, subsurface moisture and determining pavement structure & layer thickness ... All at Highway Speeds!

**Structure & Thickness**

**Voids**

**Delaminations**

**Deterioration**

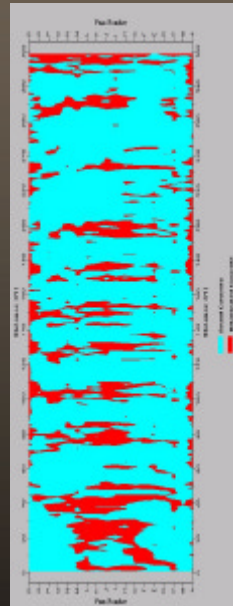
**Moisture**

## Ground Penetrating Radar Inspection Services

Penetradar Technical Services Group provides Ground Penetrating Radar testing and inspection services for bridge deck and pavements, and for general inspection projects, using both non-contacting and contacting style IRIS GPR systems. We also utilize IRIS Software for Windows, the most advanced software available today for GPR data collection and signal processing.

Our firm specializes in the manufacture, development and application of GPR. Since 1985, we have conducted GPR surveys in over 30 US states, Canada and in Europe, inspecting hundreds of bridge decks comprising several million square feet of deck area and several thousand lane miles of highway pavement. In addition, Penetradar has been instrumental in developing GPR standards for the industry, including SHRP C101, AASHTO TP36 and ASTM D 6087, making our firm the leader in non-destructive, GPR testing.

Contact us for assistance on your next project.



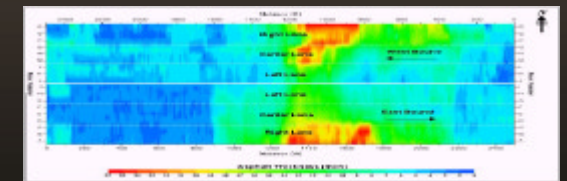
Typical GPR Bridge Deck Delamination Map produced with IRIS GPR equipment and IRIS Software. Red areas show locations of delaminated concrete.

## Bridge Deck Inspection

Penetradar Corporation Technical Services Group provides GPR bridge deck delamination and deterioration inspection on asphalt covered and exposed concrete bridge decks. GPR can assist you in determining bridge deck condition by providing quantitative information on the location and quantity of deteriorated concrete and corrosion induced delaminations, the depth of reinforcing steel and thickness or bond of overlays. Our GPR bridge deck surveys require no traffic control and are performed at highway speeds, thereby eliminating traffic interruptions. Our GPR surveys are a cost effective source of quantitative information for bridge and maintenance engineers, that can be used for determining repair quantities and preparing project cost estimates.

## Pavement Inspection

Our GPR highway inspection provides information on pavement structure and layer thickness, and our surveys can detect various forms of pavement deterioration, voids and regions of excessive subsurface moisture. We utilize state-of-the-art IRIS non-contacting GPR equipment that operates at highway speed and requires no traffic control. GPR can cover several hundred lane miles per day, making this technology ideal for network level and project level inspection of highway pavement. Penetradar's pavement surveys produce graphical and numerical results that are easily understood and readily usable by pavement and maintenance engineers.



Color contour pavement thickness map produced by IRIS GPR survey. Color denotes layer thickness. Data are also presented in numerical format for export to database.