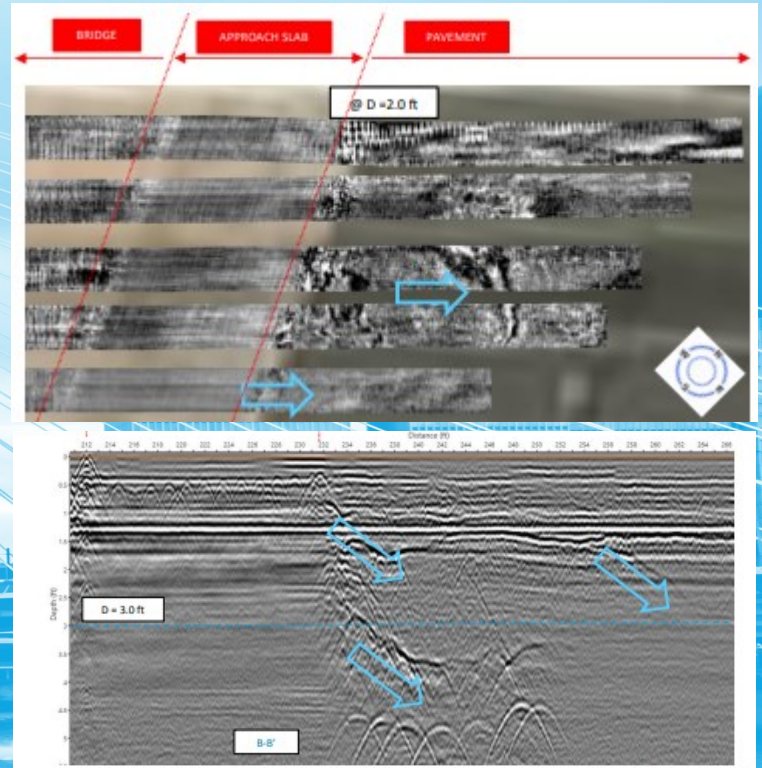


MD Approach Slab Analysis



Using mobile GPR scanning and on-site visual confirmations, NEXCO evaluated the condition of areas within and proximate to approach slabs to help diagnose possible causes of slab shifting (vertical displacement near slab entrances/exits). With a thorough look at various angles of the GPR data cube, we found several different possible causes and influencers, mostly directly next to the slabs but not within the slabs themselves.

It should be noted that because a step-frequency system was used, the scanning range within the proximate roadway and bridges themselves could be collected in single passes. Faster, more shallow collection required for the concrete slab and slower, more deep collection required for the roadway both show up within the system's 100 to 3000MHz range.



Project Details

Client	Maryland
Reference	Mark Wolcott mark.wolcott@iseeusa.net
Surface Area	7 Bridges, variable areas
Project Period	4/2022 - 5/2022

Impression

This project highlights versatility of GPR in application to civil structures. It excels in finding anomalous features in concrete, asphalt, and earthen bodies, making it a flexible and powerful tool in situations which require "eyes" into different material types.

This project had a limited timeline because immediate action was needed to address the sinking approach slabs. GPR enabled analysts to identify problem areas and develop a remedial construction plan quickly.