

NOVEMBER, 2000

Geophysical Testing for Assessing the Cause of Movement in Foundations

Speaker: Ron Kelm, P.E.

Ron Kelm, P.E., president of Forensic Engineers Inc., Houston and Chair of the FPA Structural Committee gave a presentation on geophysical testing for assessing the cause of movement in foundations. Ron discussed several projects on which he had used Lyric Technology's ground penetrating radar to determine soil properties below a slab such as moisture contents, air gaps, fill density, concrete density, slab thickness, etc.

In addition Ron presented the results of several projects on which he employed Bryant Consultants' GMMIR (resistivity) testing to determine moisture contents at depth continuously around foundations. The test results which he presented showed color plots of soil moisture along property lines from the surface to about 20 feet. In addition to soil moisture variations, anomalies such as tree roots, sewer lines and different soil densities could be seen in the plots.

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