

Wireless Hammer for the Pile Integrity Tester

The Pile Integrity Tester (PIT), by **Pile Dynamics, Inc.**, performs Low Strain Impact Integrity Testing, a non-destructive test used in concrete or timber piles to evaluate the magnitude and location of major defects. PIT may also be used to test piles integral in the structure, such as those supporting existing bridges or towers, and may assess their length. The test encompasses the Pulse Echo Method and the Transient Response Method, each indicated for certain job conditions and requirements, and is standardized by ASTM D5882. In the widely employed Pulse Echo Method, the data required for defect evaluation is obtained by impacting the top of the foundation with a hand held hammer. One or two accelerometers record the propagation of the resulting stress wave along the shaft. When the more sophisticated Transient Response Method is employed, the hammer used on the test is instrumented with an accelerometer. Another accelerometer is placed on the top of the foundation. Pile Dynamics now offers a wireless instrumented hammer to be used with the model PIT-X2 (which has 2 channels of data acquisition). This increases the convenience for PIT users, enabling the test to be performed complete-



PIT evaluates the magnitude and location of major defects

ly free of connecting cables. The single channel PIT-X with a wireless accelerometer continues to be available, as are the traditional (wired and larger) single channel PIT-V and two-channel PIT-FV. ■