Abstract

Deep foundations are widely used for structures - bridges, dams, docks and buildings - located at sites with poor soil conditions at shallow depth. Due to the extensive use of deep foundations, the need has arisen for evaluating the structural integrity of these types of foundations posterior to their installation. A variety of non-destructive testing methods have been proposed and implemented for assessing the condition of deep foundations, but the PIT (pile integrity test) remains one of the more popular methods due to its relatively low cost and the short time involved in conducting such a test. This article describes some of the general aspects of the PIT and a specific application of this test on eleven piles at a construction site near the city of Palmira, Colombia. Structural problems were identified in two of the eleven piles and posterior excavations of these two piles proved the effectiveness of the PIT for assessing the structural integrity of deep foundations.

Keywords

Integrity Test, PIT, deep foundations, piles.