

以音波回音法評估沉箱式基礎長度之初步研究

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摘要

Evaluating the depth of foundations with transient elastic waves is an important technique of high application value. The objective of this research was to study the feasibility of using elastic waves to assess the depth of caissons. In the course of study, “numerical simulation of finite elements” and “verification of in-situ tests” will be used at the same time to carry out in-depth cross studies for this problem. This research first developed a testing system of Sonic Echo method with windows interface, and then carried out a series of in-situ tests at different stage on the caisson foundations of the in-built Bridge So-Fong-Brook. By comparing the difference of response signals of tests at different stages, the effect of each structural component on the testing signals may be studied.

關鍵字：Nondestructive Test, Caisson Foundation, Sonic Echo Method