

## Abstract

One of the common methods used to install pile foundation is hydraulic jacked-in machine. In this method, a pile is pushed down into the ground up to the predetermined depth. The method has similar principle to that of Cone Penetration Test (CPT). This paper presents the correlation between the mobilize pressure required to install pile foundations and that required to push the bi-cones that attached at the tip of CPT rod. The results show that the penetration pressure required to install the pile into very soft clay layer is independent of pile diameter. The penetration pressure required to install the pile into soft to stiff clay layers depends on the pile diameter. The larger the diameter of piles, the smaller the penetration pressures required. The penetration pressure required to install the pile into stiff expansive clay layer beyond the depth of active zone can be predicted as high as the pressure calculated from CPT.

CPT; jacked-in pile; mobilize pressure

## **The Correlation between Penetration Pressure Required to Install Pile Foundation and to Insert Bi-cones in Cone Penetration Test**

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VOLUME 21 NO 1 2019

ISSN 10.24127/ced.v21n1.2019

CED is published by The Institute of Research & Community Outreach - Petra Christian University, Surabaya, Indonesia



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