PILE FOUNDATION BEARING CAPACITY ANALYSIS of 2x100 MW LAMPUNG POWER PLANT CONSTRUCTION AT TARAHAN VILLAGE SOUTH LAMPUNG

By

IRENE ANNE ELFIANI AGUNG

ABSTRACT

Pile included in one of the categories of deep foundations. Piles, used for the soil foundation at a depth that is normally not capable of supporting its load and hard ground lies at a depth. Bearing capacity of pile derived from the tip (end bearing capacity) and bearing capacity is obtained from pressure bearing capacity of the pile and sliding or blanket (friction bearing capacity) from the carrying capacity of the friction or adhesion force between the pile and the surrounding soil.

To get the value of carrying capacity, ground data collection and data structure must be obtained first. From the data collected will get the soil bearing capacity calculations using several methods of calculation.

In the calculation of bearing capacity of the pile can be obtained using methods Mayerhof where 348.5085 tons, Terzaghi method obtained a value of 306.4934 tons, and Vesic method of 356.6522 tons. While the authors friction bearing capacity calculations using α-Tomlinson obtained a value of 1264.4897 tons, the method λ-Vijayvergiya & Foch of 1098.5920 tons, and β-Burland method of 1123.2058. Differences each caused by different calculation coefficient wheter values are different in each method.

Keywords: Bearing Capacity, Pile Foundations