ABSTRACT

Foundation is used in civil engineering to define a building construction that functions as a building support and transmits the load of the building above it to the soil layer with sufficient bearing capacity. The purpose of writing this thesis is to determine the settlement value and bearing capacity of bore pile foundation with the comparison of analytical method (Meyerhoff and Schmertmann & Nottingham) and finite element method with the help of Plaxis 2D Software and PDA. The results and discussion of the calculation analysis obtained the conclusion that the comparison of foundation settlement using analytical methods and finite element methods with 2D plaxis obtained comparison results of mayerhoff (0.023886099 m), Schermetmann & Nottingham (0.01749 m), Plaxis (0.38388 m). While the comparison of soil bearing capacity values obtained 4 values namely Mayerhoff (27.92989999 tons), Schermetmann & Nottingham (33.3229 tons), Plaxis (33.3229 tons) and PDA (86.25 tons).

Keywords: Foundation, Bored Pile, Plaxis 2D