

ABSTRACT

EVALUASI PERENCANAAN SECANT PILE SEBAGAI DINDING PENAHAN TANAH PADA BASEMENT GEDUNG HOTEL MERCURE LAMPUNG JL.RADEN INTAN, BANDAR LAMPUNG

Oleh

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The planing of soil retaining walls evaluation is important to get the and result that strong, secure and economical. In this case the evaluation of soil retaining walls of secant pile in the basement contruction at Mercure Hotel building Lampung. This evaluation is to calculate thes secant pile bearing capacity from standard penetration test (SPT), checking against the sliding.

This planning evaluation with a survey to search data with observation metode on the project location and conduct library andies by searching literature for refrences. From the encode obtained secant pile diameters 880 mm, and main reinforcement D25mm, and shear reinforcement D13mm. The purpose of this study is to evaluate and calculate the power and reinforcement volume of soil retaining walls secant pile from SPT data wearing mayerhof method. Calculating siol retaining walls analysis and calculating ultimate bearing capacity for the circle foundation and against sliding.

The results obtained from the calculations are as follows, secant pile bering capacity diameters 880 mm are 20,0693 tons and D 25 mm as the main reinforcement are 0,0581 tons and for reinforcement of D 13 mm are 0,0154 ton. Based on calculation of bearing capacity at soil retaining walls, the force gained are $P1 = 0,8552\text{kN}$, $P2 = 4,7769\text{ kN}$, $P3 = 4,4846\text{ kN}$, $P4 = 6,2718\text{ kN}$. From $\sum M_o$ (latitude force $V = 0$) obtained $M_{maks} = 52,5521\text{ kN/m}$. Calculating stability against sliding obtained $F_{gs} = 4,9682 > 1.5(\text{safe})$. From the results above it can concluded that secant pile bering capacity is strong enough and secure against sliding, therefore can be used for the storey building construction.

Keywords: Soil Retaining Wall, Secant Pile bearing capacity