**Calculation of Stability and Reinforcement of Secant Pile In Project Rumah Susun Tingkat Tinggi Pasar Rumput Jakarta Selatan**

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**ABSTRACT**

The development of high-rise buildings is increasing along with rapid economic growth and increasing population, especially in the capital city of Jakarta. With rapid population growth, it will also increase land demand. To meet the demand for a secure parking space, then comes the term basement parking. Therefore secant pile is used as a wall structure that can hold the ground.

This thesis aims to analyze the depth of wall penetration, displacement, deflection, and calculate the amount of reinforcement used in secant pile walls. The project taken as a case study is Rumah Susun Tingkat Tinggi Pasar Rumput Jakarta Selatan project.

The method used is a method of analysis using the PLAXIS program. The calculation will be carried out using the construction phase plan that will be applied in the field. After analyzing, the wall penetration depth of 8.5 m was obtained, *displacement* maximum 60.04 mm. and the number of reinforcement used for secant pile safety is 14 BJTS D-13 iron.

Keywords : Wall of Secant Pile, Basement, PLAXIS Program.