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**ABSTRAK**

*Judul : Perencanaan Struktur Dinding Penahan Tanah Semi Basement (Studi Kasus Proyek Limo House), Nama : Rizki Ahyani Agustin, Nim : 41117320079, Dosen Pembimbing : Prof. Dr. Ir. Drs. Syafwandi, M.Sc. 2022*

*Perencanaan dinding penahan tanah tipe kantilever pada proyek Limo House untuk pembangunan konstruksi semi-basement. Kondisi memiliki lereng yang terindikasi terjadi longsor, longsor ini menyebabkan amblasnya tanah pada lokasi proyek. Perhitungan dimensi, kontrol stabilitas, penulangan dinding penahan tanah sangat penting dalam perencanaan dinding penahan tanah. Dari perhitungan kestabilan lereng didapat nilai  $a < 1$  maka tidak aman sehingga dapat membahayakan. Berdasarkan tinggi lereng mencapai  $b$  meter, maka direncanakan dinding penahan tanah yang memiliki tinggi  $b$  meter dan lebar  $c$  meter. Pertama kontrol stabilitas terhadap geser dan guling, apabila salah satu tidak memenuhi maka harus mendimensi ulang dinding penahan tanah. Nilai kontrol stabilitas terhadap geser sebesar  $d$  dan guling sebesar  $e$ . Kedua kontrol stabilitas terhadap daya dukung dan kelongsoran, apabila salah satu tidak memenuhi maka harus merencanakan pondasi dalam. Nilai kontrol stabilitas terhadap daya dukung sebesar  $f$  dan kelongsoran sebesar  $g$  karena nilai kelongsoran tidak memenuhi maka direncanakan pondasi dalam dengan kedalaman  $h$  meter sebanyak  $i$  buah per meter. Selanjutnya dinding penahan tanah direncanakan penulangan secara detail dan dilakukan perencanaan anggaran biaya dari material yang dibutuhkan untuk pembangunan dinding penahan tanah.*

**Kata kunci:** *perencanaan, dinding penahan tanah, stabilitas, semi-basement.*

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**ABSTRACT**

*Title : Structural Design of The Semi-Basement Retaining Wall (Case : Limo House Project), Name : Rizki Ahyani Agustin, Nim : 41117320079, Academic Adviser : Prof. Dr. Ir. Drs. Syafwandi, M.Sc. 2022.*

*Design of retaining wall cantilever type in Limo House project for semi-basement construction. The condition has slopes indicated by landslides, these landslides cause the land to sink at the project site. Calculation of dimensions, stability control, reinforcement of retaining walls is very important in the design of retaining walls. From the calculation of slope stability, the value of  $a < 1$  is obtained so it is not safe so it can be dangerous. Based on the height of the slope reaching  $b$  meters, a retaining wall is planned which has a height of  $b$  meters and a width of  $c$  meters. First, control the stability against shear and overturn, if one of them does not meet it must re-dimensionalize the retaining wall. The value of stability control against shear is  $d$  and overturned is  $e$ . Both stability control on bearing capacity and sliding, if one of them does not meet it must plan deep foundations. The stability control value for the bearing capacity is  $f$  and the landslide is  $g$ . Because the landslide value does not meet the planned deep foundation with a depth of  $h$  meters as much as  $i$  pieces per meter. Furthermore, the retaining wall is planned for reinforcement in detail and budget planning is carried out for the materials needed for the construction of the retaining wall.*

**Keyword:** *Design, retaining wall, stability, semi-basement*