

Rock slope stabilization for hillside residential development
- A case study in Kuala Lumpur

Tan Boon Kong
Jabatan Geologi, Universiti Kebangsaan Malaysia, Bangi

A certain residential development scheme sited on hilly, granitic terrain in Kuala Lumpur involved the cutting back of hill slopes for the construction of access roads, houses and condominiums. Excavations in some cases include blasting of the rock slopes, resulting in conditions where the stability has become of major concern.

This paper presents the results of an engineering geologic investigation on the stability of the relevant rock slopes, focussing on the causes of instability and some possible remedial measures that can be undertaken. The causes of instability include poor blasting practices resulting in excessive overbreaks and overhangs, unfavourable joint orientations, faulting and severe weathering of some portions of the rock. Possible remedial measures include rock bolting, scaling and cleaning, controlled blasting to reduce height of rock face as well as to remove major overhangs, and rock buttress.
