

The Concept of Anchor Hazard Potential Map

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Abstract : In Taiwan, the landforms are mainly dominated by mountains and hills. Many road sections of the National Highway are impossible to avoid problems such as slope excavation or slope filling. In order to increase the safety of the slope, various slope protection methods are used to stabilize the slope, especially the soil anchor technique is the most common. This study is inspired by the soil liquefaction potential map. The concept of the potential map is widely used. The typhoon, earth-rock flow, tsunami, flooded area, and the recent discussion of soil liquefaction have safety potential concepts. This paper brings the concept of safety potential to the anchored slope. Because the soil anchor inspection is only the concept of points, this study extends the concept of the point to the surface, using the Quantum GIS program to present the slope damage area, and depicts the slope appearance and soil anchor point with the slope as-built drawing. The soil anchor scores are obtained by anchor inspection data, and the low, medium and high potential areas are remitted by interpolation. Thus, the area where the anchored slope may be harmful is judged and relevant maintenance is provided. The maintenance units can thus prevent judgment and deal with the anchored slope as soon as possible.

Keywords : anchor, slope, potential map, lift-off test, existing load

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