

**SLOPE EROSION CONTROL AT SHAH ALAM, SELANGOR, MALAYSIA**  
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Slope Protection

**Problem**

Prolonged and intensified rainfalls severely eroded and caused a shallow slip failure of a steep slope exceeding 50° angle. The affected area was just next to Federal Highway Batu Tiga Toll Plaza, a highly trafficked area. In addition to the alarming condition, an electric pylon is standing near the failing slope. The client cum concessionaire, Projek Lebuhraya Utara - Selatan (PLUS) Bhd had instructed immediate measures to rectify the problem and the consultant was tasked to come up with an economical and pro-environmental solution

**Solution**

The common remedy adopted by most engineers for this type of problem would be the use of rubble pitching but this was not recommended by the consultant because it does not harmonize aesthetically with the existing vegetated surroundings. Recognizing the elements to satisfy, we proposed Reinforced Enkamat as it has the capability to control erosion, whilst acting as turf reinforcement mat. Fundamentally, Reinforced Enkamat was chosen as the best solution because it enhances the growth of vegetation and prevents surface erosion. Technically or aesthetically, it is a combination that works.

**Client:** Projek Lebuhraya Utara-Selatan (PLUS)

**Designer / Consultant:** PLUS

**Contractor:** KEJURUTERAAN MSK

**Products used (Qty.)**

- MacMat R - Steel 500 M2

**Date of construction:** 03/2004 - 04/2004



before construction



During Construction



after construction