



**GEOTEXTILE
REINFORCED STEEP SLOPE**

CASE STUDY

PROJECT: Umhlanga Rocks Drive, Durban
CLIENT: Borough of Umhlanga Rocks
CONSULTANT: B C P
CONTRACTOR: Afrocon Construction

DATE: Sept 1999
QUANTITY: 3 000 m²
PRODUCT: Kaymat U24

Due to a space constraint imposed by a 500 mm diameter steel watermain at the toe of the slope, an increased slope angle of 60° along the embankment was required. A number of alternatives were investigated to find the most cost effective and environmentally pleasing solution. The geotextile reinforced embankment alternative proposed by **Kaytech's** design department met these two criteria and was accepted. **Kaymat U24** was placed in 300mm lifts with tie-back lengths of 2.5m.

The front face was protected using the wrap-around construction technique. The slope was then top-soiled and grassed. The results have been most satisfactory, with the wall standing up to the torrential rains in October 1999, showing no damage to the structure itself, and only minimal damage to the grass sods planted on the face.



Top right – temporary formwork
 Above – good compaction is essential
 Middle right – grass sodding underway
 Right – condition in March 2002