



**TeMa**  
Technologies  
and Materials

South Africa



## REHABILITATION & REINSTATEMENT OF FAILED SLOPE & RETAINING WALL

### NATURE OF INTERVENTION

The scope of the project included the complete repair and reinstatement of a failed slope and retaining structures beneath several existing residential properties of a local golf estate.

The failure posed a significant threat to the structural integrity of the properties above and the safety to recreational walkways and golf course infrastructure below.

TeMa SA was consulted by the specialist geotechnical contractor to advise on adequate back drainage and Gabion specifications as part of the planned solution.

Through the introduction of various Geosynthetics products, to replace conventional construction materials, durability, cost and performance of the project was greatly improved lowering upfront costs and improving performance efficiencies over an extended design and the operational lifespans.

### Location:

Benoni, Gauteng, South Africa

### Products:

- *T-PIPE (Slotted)*
- *T-PIPE Socks*
- *TeMa-GABION*
- *TemaTEX NW*
- *V-DRAIN W*
- *SPEEDRAIN*

### Application:

Slope repair and retaining wall requirements including structural elements and a range of subsoil drainage systems.

### Date:

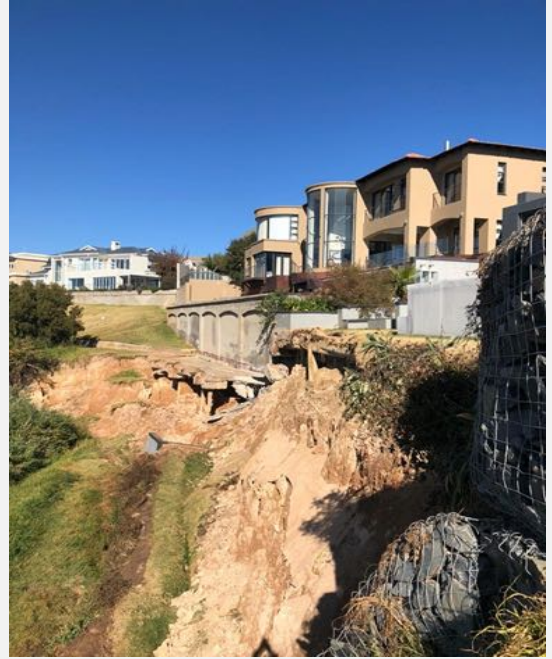
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## SOLUTION

The solution involved the reinstatement of the slope using a series of retaining structures. These included specialist grouting techniques such as soil nailing, steel reinforced shotcrete, mass filled Gabions (**TeMa-GABION**) and general vegetated backfilling.

Back drainage, and the release of ground water pressure behind the structures was of paramount importance and successfully achieved using Tema SA's range of drainage products including: perforated subsoil drainage pipe (**T-PIPE**), wrapped in a premanufactured geotextile pipe sock (**TeMaTEX NW2**); narrow width wick drains (**V-Drain W**); next generation monofilament Fin drain (**SPEEDRAIN**) and separation geotextile (**TeMaTEX NW4**).



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