

## CASE STUDY

Reinforcement | Concrete Block Retaining Wall | Olivedale Retirement Village, Randburg

Aug 2013

Client Central Development

Contractor Lonerock Construction/ Engineered Interlock Solutions Consultant TMW Consulting Engineers

Product **Miragrid GX** | 2 000m<sup>2</sup> Rep Winnie van der Merwe

### Problem

The site of the new retirement village is situated on a very steep slope. This necessitated the construction of stable platforms on which to build the retirement units.

### Solution

It was determined to change the original tender for a 90° reinforced concrete wall to a block wall reinforced with a geogrid.

**Miragrid GX 80/30** was placed at every second block of the wall with tie back lengths of 5.4m.

The 60m long wall was constructed at an 85° angle and reached heights of up to 7.5m. To prevent the possible build-up of hydrostatic pressure behind the closed face Infrablock 350 Multiblend splitface blocks, a blanket drain was constructed, consisting of a layer of **bidim® A2** covered with a 120mm layer of 19mm stone followed by a second layer of **bidim® A2**. Outlets were provided at every 3m centre.

A layer of **Rockgrid® PC 100/100** was installed on the second last layer to act as an erosion control layer as well as a reinforcement layer.

### Benefits

This decision to build a dry stack wall reinforced with **Miragrid GX 80/30**, proved to be an effective and cost saving one for the developers.



*Miragrid GX 80/30 placed for reinforcement of the block wall*



*bidim® A2 blanket drain*