

CASE STUDY

Drainage & Filtration | Road Rehabilitation & Maintenance | N1 Pienaarsrivier to Bela Bela

July 2015

Client Bakwena

Contractor Concor

Consultant Jeffares & Green

Product **bidim[®] A4** | 85 000m²
Flo-pipe 110mm | 32 000m
Glasgrid 8511 | 250 000m²

Rep Joe Anderson

Problem

Standard maintenance projects completed on the N1 national road over the past 15 years did not prevent severe cracking and rutting in certain sections of the road.

Certain sections of the road requiring rehabilitation presented additional drainage problems. Since the road was so flat, large volumes of water accumulated in the median and filtered through into the layer works causing major degradation.



bidim[®] and Flo-pipe drainage system used to channel excess water.

Solution

A more robust, permanent pavement solution was therefore implemented in which they specified a **bidim[®] A4** and **Flo-pipe[®]** drainage system to control the ingress of water into the layer works. Success was achieved when an inspection revealed large volumes of water flowing from the **Kayduct** pipes into the storm water manholes.

Glasgrid[®], a polymer-modified, bitumen-coated, woven fibreglass grid was used to redirect crack stresses horizontally and to dissipate traffic-induced stresses as well as effectively reinforce the asphalt layer.



Glasgrid[®] laid over roads to effectively reinforce the asphalt layer.

Benefits

With a combination of skillful design and superior product quality the lifespan expectancy of this major South African route was significantly extended.