

FINALIST Community-based Projects Category

KEY PLAYERS

Client

South African National Roads Agency Limited (SANRAL)

Professional team

Royal HaskoningDHV

Main contractor

Afrostructures (Pty) Ltd

Sub-contractors

Amsteele Systems, Honel, ClearVu Fencing

The completed Model Kloof Pedestrian Bridge and Walkway

Model Kloof Pedestrian Bridge and Walkway

OVERVIEW

The Model Kloof Pedestrian Bridge and Walkway is a SANRAL community development project located on the northern outskirts of Ladysmith, KwaZulu-Natal, linking the Limit Hill and Model Kloof neighbourhoods.

The neighbourhoods are separated by the busy National Route 11 (N11) which connects Ladysmith in the south to Newcastle in the north.

Commercial developments nearby had resulted in increased vehicle traffic volumes in the area, making it very dangerous during the morning and afternoon peak periods when a relatively large number of pedestrians, including Limit

Hill Primary School learners, would cross the N11 directly due to lack of appropriate pedestrian infrastructure.

As a community development project, a pedestrian bridge was therefore constructed over the N11, together with surfaced walkways, connecting the Model Kloof neighbourhood to Limit Hill and central Ladysmith four kilometres away. Dedicated pedestrian walkways were also constructed to eliminate the dangerous pedestrian usage of the N11 shoulder, as well as a 460 m safety wall adjacent to the pedestrian bridge to prevent at-grade crossings.

A definite need for road safety education, particularly from a pedestrian perspective, and particularly for learners,



Involving learners: RHDHV's under-35 organisation, *The Young Royals*, hosted a fun-filled bridge-building contest where learners built their own structures using sweets and toothpicks



An African first – a Greenroads South Africa Pilot Project

was also identified and incorporated into outreach events organised by the project team and Royal HaskoningDHV's under 35 organisation, *The Young Royals*. One such event was a fun-filled bridge building contest where pupils built their own structures using sweets and toothpicks.

OPPORTUNITIES FOR LOCAL INVOLVEMENT

In 2010, Greenroads™, a road-specific rating system inspired by the concept of Green Buildings, was unveiled in the United States. A year later, at the time when the Model Kloof project was being conceptualised, SANRAL completed the construction of their award-winning Head Office building in Pretoria to Green Star South Africa 4 Star standards. The project team was thus sensitive to both the costs and benefits of a third-party

certification process and consequently became interested in assessing the potential of a similar system specifically suited for road infrastructure.

Greenroads™ South Africa was established and the concept currently exists in the form of an interim board consisting of representative stakeholder organisations within the road infrastructure industry. One of the tasks of the interim board is to develop a localised version of Greenroads™ for use in South Africa with existing American credits being modified to suit local needs while entirely new credits are being developed for use.

Because addressing employment and development issues is a critical component to a sustainably operating South Africa, the Model Kloof team investigated options to combine the existing best practices with new contextually relevant

best practices such as durability class concrete, use of emerging contractors, labour-intensive construction, sustainable remuneration and youth in-service training (the site hosted four full-time learners despite the small size of the project). Where possible, the client's vision for implementing best practices was written into the project tender document to test its viability (penalties for lack of compliance were therefore not included).

Hence the project also became a Greenroads™ South Africa pilot project – a first in Africa.

CONCLUSION

Although one or two at-grade crossings still occur daily due to illegal drop-offs, this project has positively affected pedestrian safety, and road safety awareness in general, in the area. □



Buy-in from the community ensured the success of this project