

SMOOTHER ROAD CONSTRUCTION

JG Afrika, a leading firm of consulting engineers, is supervising the doubling of an approximately 30-km section of the N4 toll road between the M17 Garankuwa and R512 Brits interchanges.



The roughly R500-million project was undertaken in response to a substantial increase in traffic on this section of the road corridor, which is administered by the Bakwena Toll Concessionaire on behalf of the South African National Roads Agency Limited.

JG Afrika started working on the preliminary and detailed design of the two new carriageways on the east and west sides of the existing road in 2016, and a joint venture (JV) between Raubex and Enza Construction mobilised to site in mid-2018 to begin the three-year works programme.

Phakamile (Phaks) Ngqumshe, a director of Transportation & Traffic Technology Africa and chairman of the board for specialised road technologies, says that the project is an extensive undertaking.

"It involves the widening of about seven large structures, including the Crocodile River Bridge with its 120-m span. This is in addition to the lengthening of a number of smaller structures, such as culverts, along this section of the N4. The scope of work also involves extensive earthworks with as much as 80% of the clays on the project site to be replaced by rock fill," Ngqumshe says.

Notably, the rock fill comprises a blend of suitable material sourced from site and about one million cubic metres of aggregate from a mine waste dump in the vicinity of the project.

This approach was proposed by Raubex and Enza Construction and eliminates the need to open borrow pits along the route.

It supports SANRAL's focus on building "green" roads, while also demonstrating the extent of innovation that the two contracting

companies have already brought to the professional team at this very early stage of the project. Importantly, the project is providing numerous opportunities for small black-empowered businesses located within the vicinity of the road-dualisation project.

Notably, Bakwena Toll Concessionaire has committed to sourcing as much as 30% of all project requirements from local businesses, and as many as 10 emerging contractors are already working alongside the Raubex and Enza Construction JV at this early stage.

"We have also engaged and involved the many community members who will participate in this project early on via two nominated officials from the City of Tshwane Metropolitan Municipality and the Steve Tshwete Local Municipality. This approach has ensured a spirit of goodwill between the contractors and the respective communities and is already bearing fruit, as is evidenced by the minimal disruption to construction works that we have recently experienced," he says.

Ngqumshe says that he is pleased with the progress made on this project so far by the professional team.

"This cooperation builds on JG Afrika's long association with Bakwena Toll Concessionaire, which goes back to 2008. It has been richly rewarding to work on this strategic corridor that links Gauteng with the Limpopo Province on the N1 and the platinum-rich North West province on the N4, while ensuring the efficient movement of goods and people between South Africa and neighbouring Botswana," he concludes. ■

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