

The Gauteng Freeway Improvement Project

Very visible, and extensive in its scope and scale, the GFIP is an exciting project that, once completed, should immediately and positively affect the lives of most people living and working in Johannesburg and Pretoria. Whereas other huge, award-winning projects often benefit only a few thousand people on a regular basis, the GFIP promises to contribute substantially to easing the daily lives of hundreds of thousands of motorists and passengers who currently spend many precious hours stuck in traffic. The official launch of the first phase of the GFIP happened on 24 June 2008 during a sod-turning ceremony at the Gilloolys Interchange, one of Gauteng's busiest interchanges. Work had started before the launch already, but has since taken off in all earnest. Motorists have become used to lane restrictions, concrete barriers and mounds of soil along their various routes to work and back, and are watching with interest the activities of the many tipper trucks, graders, backactors, water trucks and other construction vehicles at the side of the road or on the central reservation. This is indeed the stuff that little boys (who become civil engineers!) dream of

AT THE LAUNCH OF the GFIP, the Minister of Transport, Mr Jeff Radebe, reiterated his belief that roads are the veins and arteries of the South African economy and that the GFIP would indeed serve as a 'heart bypass' for the economic hub of the sub-continent. It is expected that the GFIP would eventually contribute R29 billion to the Gross Domestic Product, and R13 billion to the regional Geographic Gross Product.

Considering that the 40-year old Ben Schoeman highway between Johannesburg and Pretoria carries more than 180 000 vehicles per day during peak periods, the implementation of the GFIP could not have waited one day longer. Under the GFIP extra lanes will be added to freeways and existing interchanges will be drastically improved.

Moreover, Intelligent Transport Systems will be introduced to manage traffic flow and to keep motorists informed of prevailing conditions. These systems include variable message signs, a Network Management Centre, ramp

metering, use of cameras, opening of auxiliary lanes, and so forth.

Open road tolling will be implemented towards the end of October 2010, comprising electronic tolling and the obligatory use of transponders in all vehicles. Roads of this high standard require the 'user pay' principle to ensure sufficient funding not only for construction, but also for maintenance and future development of the Gauteng road system.

Transportation engineers have repeatedly said that South Africa cannot afford to continue living by the 'one person one vehicle' concept of travelling. As the GFIP will also include high vehicle occupancy lanes, it should encourage the use of public transport, or the sharing of vehicles. This in turn would help to reduce the negative impact on the environment caused by too many slow moving vehicles.

As a creator of jobs, the GFIP will comfortably meet Government's black empowerment targets, in that contractors tendered to allocate 41% of the total contract expenditure to SMMEs and/or BEEs. This equates to approximately R3,7 billion.

① Nazir Alli, CEO of SANRAL, and Mr Jeff Radebe, Minister of Transport, at the launch of the GFIP on 24 June 2008

② Road works on the N1 south between the William Nicol and Malibongwe interchanges looking towards Randburg in the distance on a quiet weekend afternoon



GFIP BROKEN DOWN INTO MANAGEABLE CHUNKS

The upgrading of 120 km of Gauteng freeways is being managed by the South African National Roads Agency Limited (SANRAL) in cooperation with the Gauteng Province and the three local authorities of Ekurhuleni, Tshwane and Johannesburg. The upgrading of the freeways has been organised into the following seven work packages:

- **Work Package A** involves the 17 km of road between the Golden Highway and 14th Avenue, and a further 1 km on the N12, between the Diepkloof

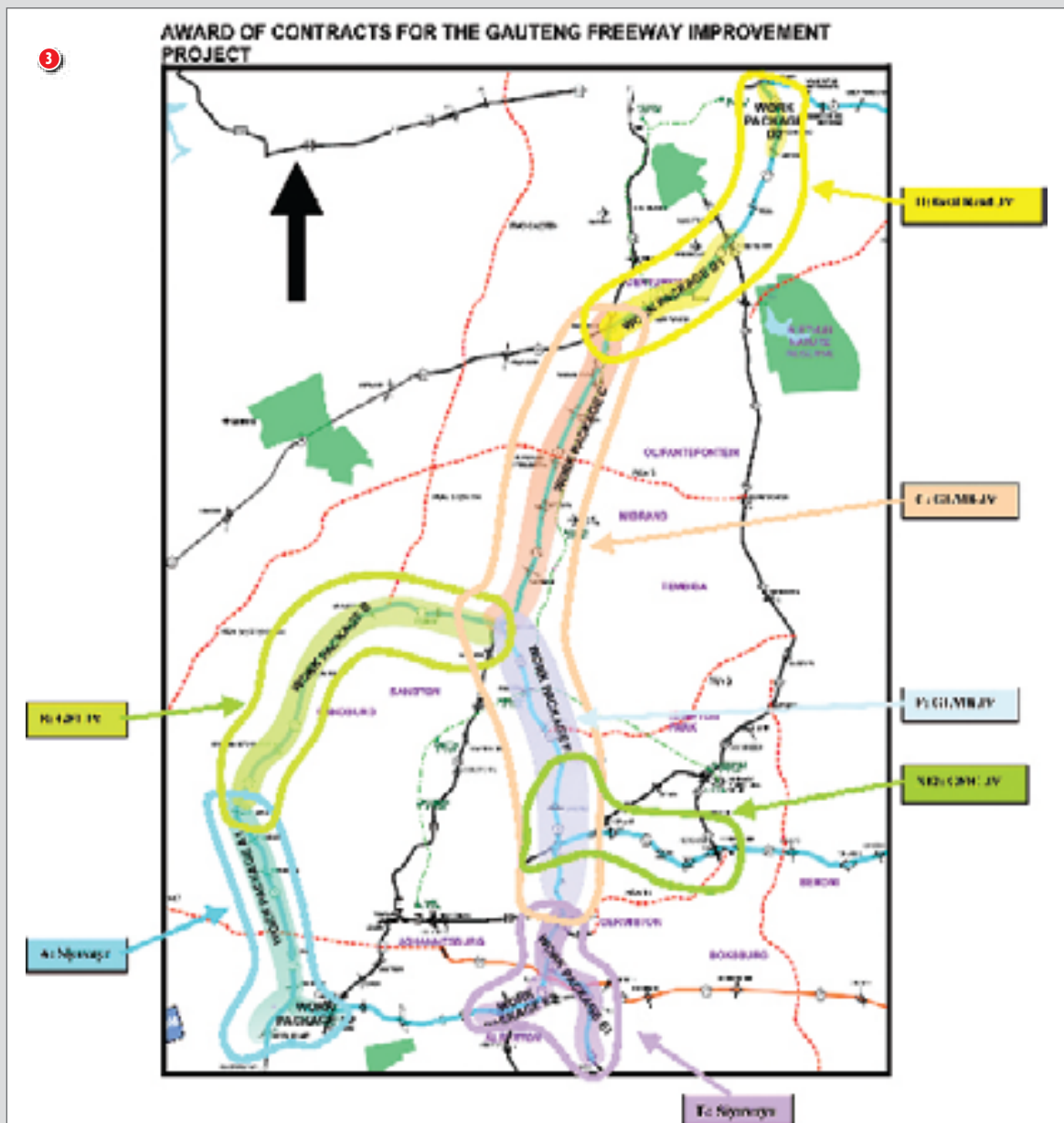
interchange and the M1, towards the southwest of Johannesburg. The consultants on this section of road are the SNA and UWP-Nyeleti consortium, while the contractors are Siyavaya Joint Venture.

- **Work Package B** will deal with the northwestern and northern sections of the ring road, i.e. 21 km of road and interchanges on the N1 between 14th Avenue and the Buccleuch interchange. The consultants on this section are the Gauteng Freeway Consortium joint venture, and the contractors are GIF Joint Venture.

- **Work Package C** involves working on 23 km of the southern hemisphere's busiest highway, the Ben Schoeman, between the Buccleuch and Brakfontein interchanges, with the consultants being BKS and the contractors GLMB Joint Venture.

- **Work Package D** covers the construction of work on a total of 15 km of road on the N1 between the Brakfontein and the R21 interchanges. The consultants on this stretch are Africon and DCA Joint Venture, with the Basil Read Joint Venture as contractors.

- **Work Package E** is situated in the



southeast, with 12 km of road on the N3 between the Old Barn and Geldenhuis interchanges and 4 km of the N12 between the Reading and Elands interchanges. The consultants on this section are the KAS Joint Venture SNA, and the contractors are the Siyavaya Joint Venture.

■ **Work Package F** involves 17,6 km of the eastern section of the ring road, i.e. the N3 between the Geldenhuis and Buccleuch interchanges. The consultants are the Gauteng Freeway Consortium Joint Venture and the contractors GLMB Joint Venture.

■ **The N12 upgrade** entails work to be carried out on 10 km of the N12 between the N3 (Gilloolys) and the R21 interchanges, and the N3 section between the N12 and Modderfontein interchanges. Gillooly's Joint Venture and CMC Joint Ventures are the consultants and contractors for these works. Construction of improvements on 27 km of the R21 and N12 will begin when the tender processes for these sections have been completed.

TRAFFIC AND INCIDENT MANAGEMENT DURING CONSTRUCTION

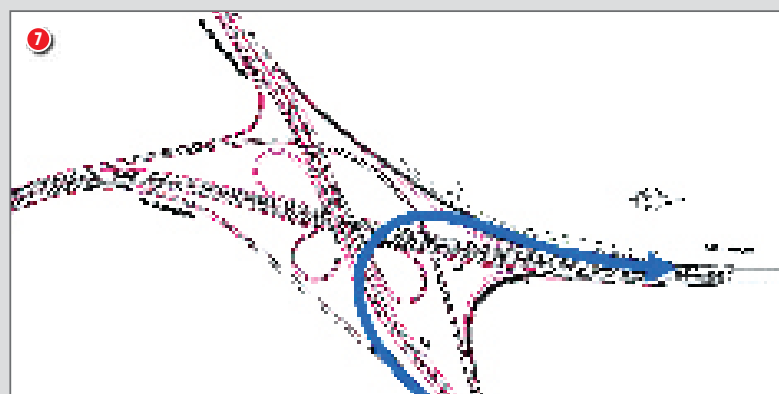
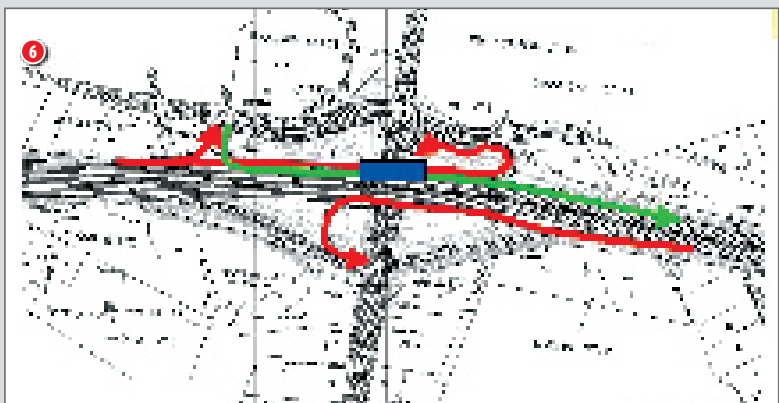
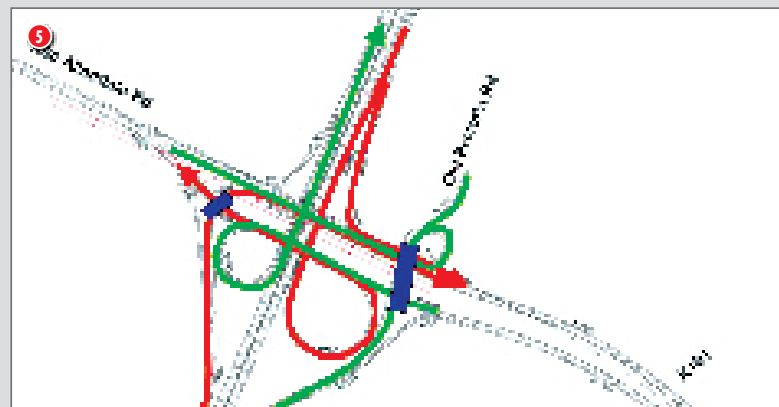
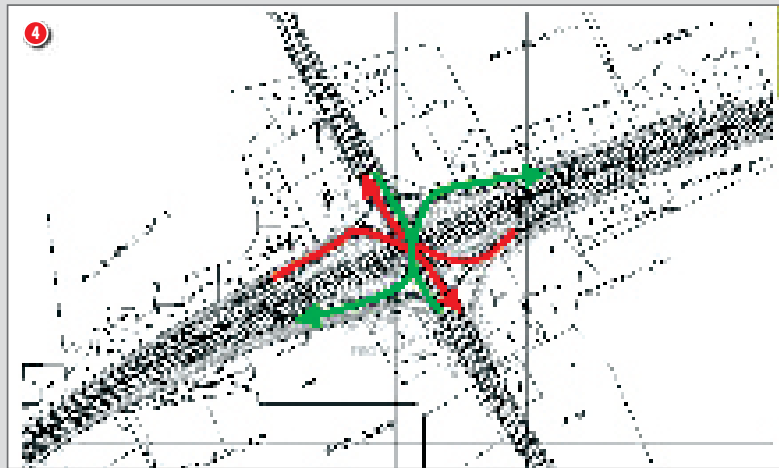
Well aware of the impact that GFIP construction would have on traffic management, SANRAL has developed and put into operation a comprehensive programme to minimise disruption and maximise road safety around construction areas.

One of the key elements of this plan is a sophisticated notification and information management system, seated in SANRAL's Network Management Centre, where the impact of construction activities on freeways and interchanges is centralised and coordinated. The plan is designed to ensure the provision of timeous information to the public to enable them to make well-informed decisions before travelling on the freeway network. Details of road and lane closures can be accessed at www.i-traffic.co.za.

3 GFIP contracts as per the various work packages

Planned improvements to existing interchanges

- 4 N1 William Nicol interchange
- 5 N1 Allandale interchange
- 6 N1 Rivonia Road interchange
- 7 N3 Gilloolys interchange



Planned improvements to existing interchanges

- 8 N1 Lynnwood interchange
- 9 N3 Elands interchange

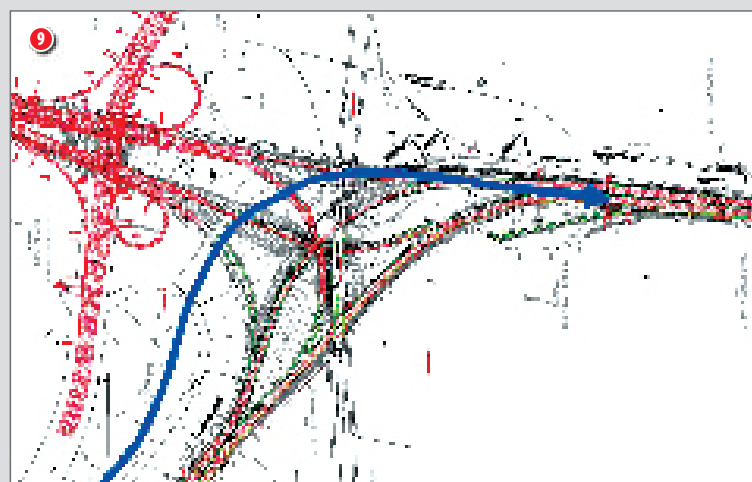
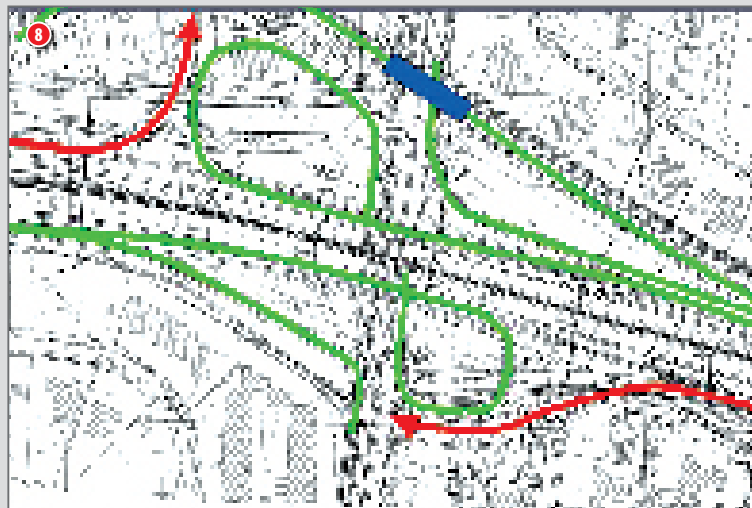
10 Offloading concrete barriers at the Malibongwe interchange on the N1 south

DATE OF COMPLETION

Road works associated with the GFIP should be substantially completed by May 2010. However, if they are not completed by then, construction will cease for a period of three months for the duration of the FIFA World Cup 2010 event. The roads will be rendered serviceable for the duration of the event, and road works will then resume after the event. □

► INFO

Watch this space for follow-up articles focusing on the various work packages



Source:

http://www.saice.org.za/downloads/monthly_publications/2008/CivilSep2008/#/0