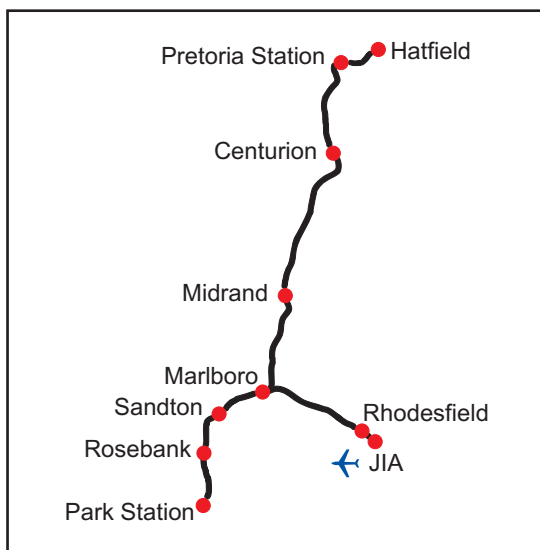


RAILWAY ENGINEERING

GAUTRAIN RAPID RAIL LINK PROJECT

The Gautrain project involves a modern state-of-the-art rail connection, providing a link between Tshwane (Pretoria) & Johannesburg & a link between Johannesburg International Airport (JIA) & Sandton. The network will consist of approximately 80 km of railway line. Apart from the three anchor stations at Johannesburg Park station, Pretoria & JIA, there will initially be seven other stations: Hatfield, Centurion, Midrand, Sandton, Rosebank, Rhodesfield & Marlboro.

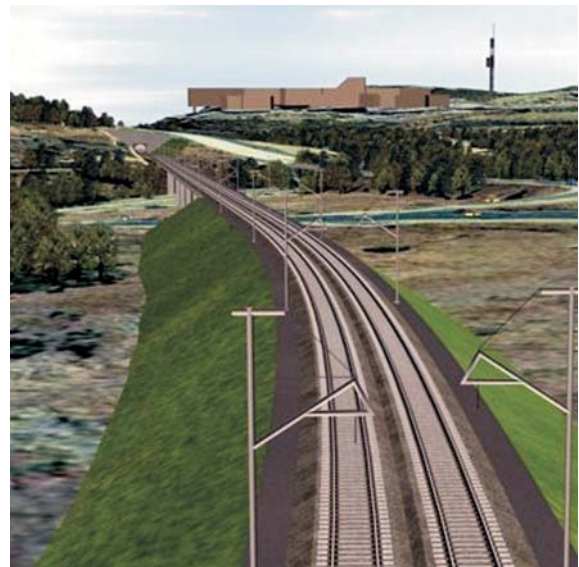


The Bombela Consortium was chosen as the preferred bidder for the Gautrain rapid-rail link project, which will be developed as a public-private partnership. The Gautrain will be a build-design-operate-transfer project for which Bombela will be responsible for providing the infrastructure as well as for the operation & maintenance of the system through the concession period.



The Bombela consortium comprises South African construction firm Murray & Roberts; Canada listed Bombardier; French firm Bouygues Travaux Publics; major French rail & bus company RATP Développement as well as a black economic-empowerment group.

The project is estimated to cost over R 20-billion & the construction period allowed for is 54 months.



HHO Africa, in joint venture with Ingerop were appointed to undertake the preliminary design of two of the design sections, Marlboro to JIA as well as Pretoria to Hatfield. After successfully completing the preliminary design, HHO Africa & Ingerop have secured the detailed design of the Eufees to Pretoria & the Pretoria to Hatfield section.

The Gautrain project is one of the largest civil engineering projects undertaken in South Africa & includes :

- ◆ 14,9 km of tunnels
- ◆ 4,6 km of viaducts
- ◆ 7,4 km of cut & cover sections
- ◆ 35 road overpass structures
- ◆ 20 rail underpass structures
- ◆ 14 cut & cover tunnels
- ◆ 7,9 million cubic metres of cut
- ◆ 6,4 million cubic metres of fill
- ◆ > 8km of pipe culverts