

Nelson Mandela Bay Stadium, Port Elizabeth, South Africa

This 45,000-seat football stadium with its eye-catching roof structure was the first of the FIFA 2010 World Cup new builds to be completed. In fact, no stadium of its size was ever constructed faster anywhere in the world. The stadium is situated at the heart of the city of Port Elizabeth on the coast of South Africa's Eastern Cape province, overlooking the North End Lake and the Indian Ocean.

In addition to construction management skills and experience in recruiting large crews on short notice, BAM International brought the specialised stadium design skills of its German BAM sisters to the joint venture construction team.



Location

Port Elizabeth, South Africa

Client

Nelson Mandela Metropolitan Municipality

Contractor

Joint venture Grinaker LTA/BAM International bv (formerly known as Interbeton)

Contract period

March 2007 – May 2009

Contract sum

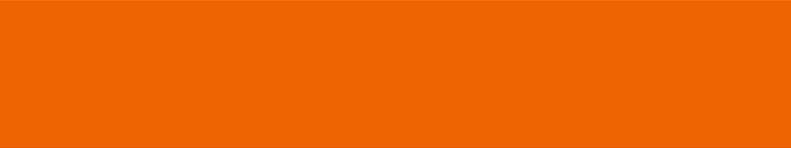
€136 million

'Fastest constructed stadium of its size ever, anywhere in the world, with high quality level of the finishing and outfitting.'



Scope of work

The construction of a multi-purpose stadium consisting of six levels and a permanent seating capacity of 45,000 spectators. Level one houses the changing rooms, FIFA offices, TV studios and VIP entrance. Level two is the public concourse. Offices are available on level three and level four contains VIP and private suites as well as the venue operations centre. Levels five and six are the concourse upper levels. The fast construction time was partly due to the use of prefab materials – all prefab concrete elements were made on site.



The roof

Designed to look from the air like the South African national flower Protea, the roof is made from steel cantilever trusses clad in aluminium sheeting. Tensioned between the trusses is a unique glass fibre reinforced fabric that is easy to clean and is resistant to extreme temperature, high wind, corrosion and moisture. The fabric panels are supported by a total of 36 cantilever trusses.



The pitch

The grass for the pitch was grown off-site at a nursery at St Albans in Port Elizabeth and is especially cultivated to withstand wear and tear. Because it rests on a mesh and several individually drained layers, water drains away quickly and easily, allowing the field to dry fast.

