

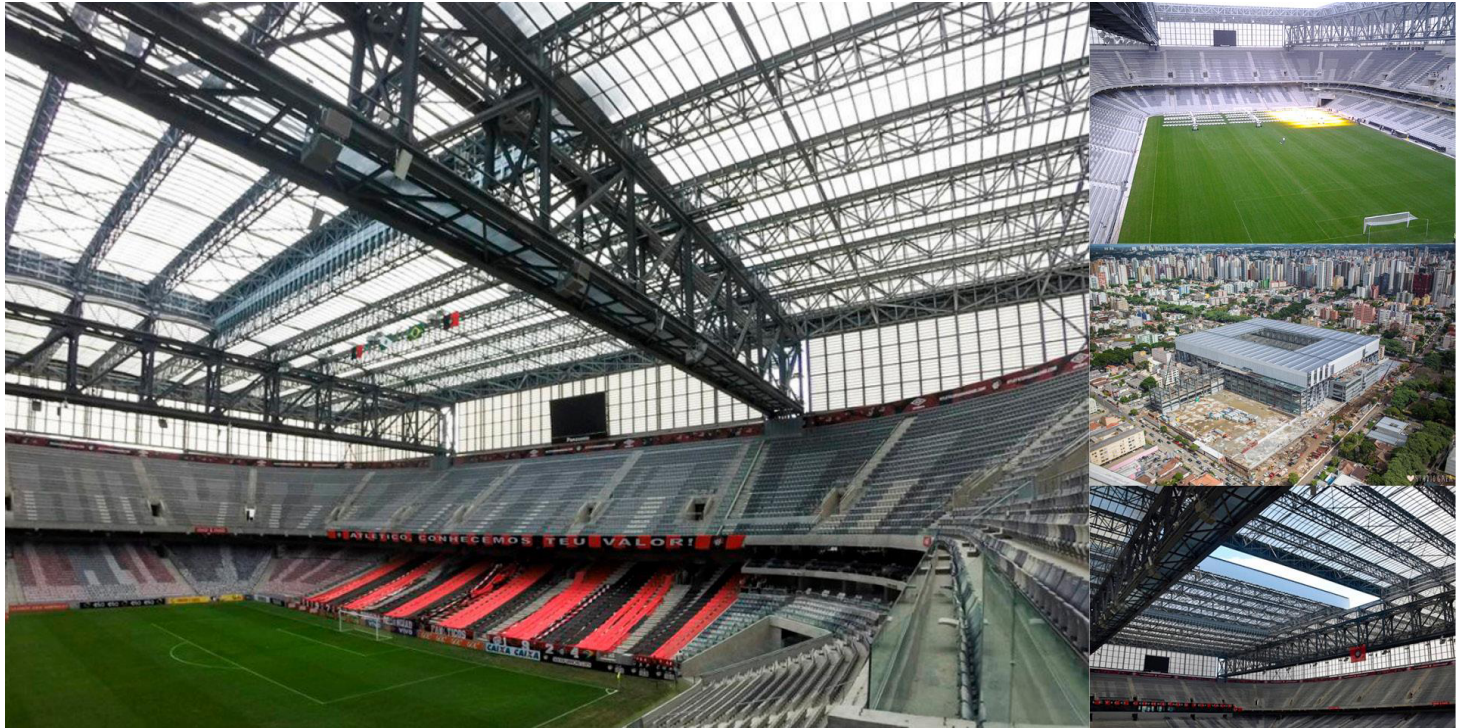


Joaquim Américo Stadium, Club Atlético Paranaense

Curitiba, Brazil / 2011

Structural type
Owner
Client
Scope
Architect

reinforced concrete frames, steel Truss roof
Club e Atletico Paranaense
Club e Atletico Paranaense
detailed design and construction support
Carlos Arcos Arquite(c)tura



The Joaquim Américo Stadium, built in 1914 and remodeled in 1999, will be one of the venues for the 2014 Football World Cup in Brazil, which is the reason behind its further remodeling and extension. After the World Cup it will be used by Atlético Paranaense Football Club in Curitiba city.

The stadium itself, pitch and grandstands shall have external dimensions of 196.0 x 155.6m² which is divided into 8 sectors: sector 01 (southeast corner), sector 02 (south grandstand), sector 03 (southwest corner), Sector 04 (west grandstand), sector 05 (northwest corner), sector 06 (north grandstand), sector 07 (northeast corner) and section 08 (east grandstand). These areas are covered by the main metal roof covering.

The foundation consists of bored or root piles, depending on the loads transmitted by the columns and diaphragm walls from the communication cores

To execute the new slabs it will be necessary to create radial frames which are composed of in situ tiered grandstand beams which will support the new L-shaped stands and the intermediate slabs composed of 20cm deep solid slabs resting on radial and circumferential suspended beams.

The vertical structure consists of reinforced concrete columns placed in situ, along with 4 very stiff, vertical communication cores which receive the horizontal loads from the roof and transmit them to the foundations.

Sector 09 which is located in the south area and outside the apron of the stadium shall be employed mainly for car parking. The building which will be constructed with different levels depending on the area, shall be fulfilled with prestressed solid slabs.



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