



Dr. Kwame Nkrumah Interchange

Accra, Ghana / 2016

Structural type
Characteristics
Owner
Client
Scope

Composite viaducts
7 viaducts, 2.0 km total length, max span 41 m
Ministry of Roads and Highways
Queiroz Galvão
detailed design



The populous Ghanaian capital city, Accra, requires new road networks that improve the traffic flow, as the remodelling of the Roundabout of Kwame Nkrumah.

The constructor Queiroz Galvao contacted FHECOR to develop a structural project with a reduced execution time and a minimized traffic impact during construction. The project consists of the following structures:

- RING ROAD VIADUCTS: Includes 3 structures:
 - o Main Viaduct: Viaduct with a total length of 925 m, 25 spans, maximum span length of 41 m and a deck 24,0 m wide.
 - o Ramp Down Feo Oyeo: Total length of 141,5 m and 6.50 wide
 - o Ramp Up Feo Oyeo: Total length of 143 m and 6.50 wide
- LOOP: Viaduct with a length of 323 m, 10 spans, maximum span length of 41 m and a deck 9,20 m wide.
- AKASANOMA: Viaduct with a length of 168,3 m, 5 spans, maximum span length of 41 m and a deck 9,20 m wide.
- NSAWAM: Viaduct with a length of 167,8 m, 5 spans, maximum span length of 40 m and a deck 9,20 m wide.
- BRIDGE 1: Single span with a length of 34,5 m and 11,65 m wide.
- BRIDGE 2: Single span with a length of 34,5 m and 18,15 m wide.
- BRIDGE 3: Single span with a length of 35,2 m and 12,30 m wide.

The design constraints led to propose composite deck solutions which are subject to be transported in shipping containers, with minimum welding on site and easy executed precast planks. In this way, the decks are composed of box girders linked with transversal beams that allow placing the simple supported precast planks.

The solution was to the liking of the Ghanaian authorities and was selected for the execution of other interchange in the nearby town of Kasoa.



C/ Barquillo 23, 2º | 28004 Madrid | España
T. (+34) 917 014 460 | F. (+34) 915 327 864
www.fhecor.com | fhecor@fhecor.es