

Breakwater for Limbe Shipyard, Cameroon

Based in the port area of Cameroon's main commercial city, Douala, Cameroon Shipyard and Industrial Engineering Ltd. (CNIC) is well-positioned to deliver prompt services to its clientele. As offshore petroleum activities in the Gulf of Guinea are expanding rapidly, however, CNIC has decided to further improve its services and has developed the Limbe Shipyard, a vast facility on the Atlantic shoreline, some 80 kilometres north of Douala.

To shelter the Limbe Shipyard from the Atlantic Ocean waves, BAM International provided the design and construction of a breakwater, with an access road for maintenance purposes on top.



Location	Limbe, Cameroon
Client	Chantier Naval et Industriel du Cameroun S.A. (CNIC)
Contractor	BAM International bv (formerly known as Interbeton bv)
Contract period	February 2005 – May 2007
Contract sum	€ 27 million

'It is widely accepted that the construction of the breakwater is the most technically challenging in this project.'

Scope of work

The contract comprised the design and construction of a 700-metre breakwater in the Atlantic Ocean, in waters down to 15 metres deep, plus the design and construction of a concrete access road for maintenance purposes, with a width of five metres. The amount of basalt rock to be used on the construction required a quarry to be opened and operated especially for this project.

The quarry

BAM International opened the special quarry near the village of Batoke, ten kilometres from the project. Before drilling operations could start, the quarry area first had to be cleared of bush and topsoil. Two drilling rigs were used in order to ensure sufficient rock extraction, with explosives being imported especially from Europe. The large rocks for the breakwater were sorted near the quarry face and kept in stockpiles inside the quarry area.

Placing prefab concrete units for maintenance road



Blasting operations in quarry



Breakwater construction during rough weather



Construction of the breakwater in progress



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