



Client
OK Free Trade Zone



Location
Ondo - Ogun, Nigeria



Period
September 2008 – November 2008

Pioneer Jetty, Olokola Free Trade Zone

Background

The Olokola Free Trade Zone (OKFTZ) Enterprise is a public-private partnership of Ogun and Ondo States in southwest Nigeria with IPEM. Its main purpose is to expand the economic base between the two states. Olokola Free Trade Zone is a 20,000 hectares industrial enclave and is designed to facilitate establishment of export oriented industries. OKFTZ Enterprise is currently developing 10,000 of the 20,000 hectares.

As part of the initial set-up to facilitate logistics for the development of the zone, the OKFTZ Enterprise had a requirement for the design and construction of a Pioneer Jetty, located along the banks of the Omu Creek.

OKFTZ Enterprise subsequently contracted PMI to design and construct their Pioneer Jetty. The facility is designed to receive 1,000 tonne barges.

Scope of Work:

The scope of works comprised of the following:

- Procurement and Mobilisation of materials and equipment
- Site clearing and ground preparation

- Installation of sheet pile Jetty structure, including a back wall
- Additional mooring piles for multi-barge rotation
- Backfill and construction of Jetty topside platform
- Demobilization of equipment

Execution of the Works:

Site Description

The site consisted of bamboo trees and shrubs and was cleared with the help of community members.

Geotechnical Investigations

A geotechnical investigation consisting of 2 number Cone Penetrometer Test (CPT) tests and a borehole was carried out. The results were used to validate and change where appropriate the design parameters of the Pioneer Jetty.

Survey Control

A bathymetric Survey was conducted over 200,000 square meters to determine the water depths at the proposed site. The survey was used to determine the extent to which the jetty should extend into the water.

Piling

The sheet piles were treated on site with anti-corrosion paint system, after receiving surface preparation for correct adhesion.

Piling was done using a crawler crane, a power pack and a 10 ton piling hammer.

The dimensions of the jetty was 14m x 45.6m with a back wall of 35m piled at 11.5m and tied to the main wall.

Compaction

The sheet piles were trimmed to the designed height and backfilled using material from an external borrow area. The fill material was placed in layer and then compacted.

Fender Installation

Used trailer tyres were used as fenders. The tyres were secured to a chain and welded to location.

Conclusion:

The scope of works was executed successfully with no safety and adverse community issues, on schedule, within budget and also addressed the Client's requirements.

