



Maputo Port Development Company (MPDC)

Rail Master Plan for the Port of Maputo

Background

Project Value: ±US\$43m | Duration: April-September 2013

The Port of Maputo is connected by rail to four different railway administrations. Since rail traffic volumes are expected to grow rapidly in future, RCE has been

appointed to develop a Rail Master Plan for the Port. The Plan is in support of a Port Master Plan that was in the final stages of completion at the time.

Key Features

RCE's approach for developing the Rail Master Plan was to create operating models aimed at the predicted end-state traffic volumes, commodity mix, train compositions and modal distribution. Cognisance was also taken of the physical and spatial constraints of existing infrastructure in the Port area.

The end-state models informed the eventual physical rail infrastructure layouts, operating philosophy and methodology.

Intermediate rail lay-outs and operating methodologies were deduced from the end-state model, using a phased approach.

The rail infrastructure functional design is based on the minimum practical rail layout necessary to perform the required wagon and train processes at acceptable operational efficiencies.

Services Provided

Taking cognisance of the expected cargo volumes and the requirements of the different stakeholders, RCE Consultants developed a Rail Master Plan for the Port of Maputo. The Plan consists primarily of the following:

- + A Rail Master Plan designed for phased implementation in conjunction with the Port Master Plan
- + Developed port rail processes and layouts for different phases of implementation
- + High level cost estimate of rail layouts per phase
- + Concept drawings indicating all existing and proposed rail infrastructure in the expected phases of development
- + An explanatory report discussing the rail layout plan, developmental logic and assumptions, implementation phases and rail operating plan

Outcome

RCE Consultants have managed to design rail infrastructure to serve the Port of Maputo for the next 20+ years. The infrastructure design is aimed at handling the expected traffic volumes and commodity mix as well as the most likely train configurations.

Constructability issues as well as business continuation during construction were taken into account. The design is aimed at implementation of the rail infrastructure and operations according to a phased approach.