



Barloworld Logistics

The Design of a Container Terminal at Tambo Springs:
Scoping Study

Background

Project Value: R400m | September – November 2016

The proposed Tambo Springs Container Terminal (TSCT) forms part of the Tambo Springs Logistics Gateway. The land is situated approximately halfway between Alberton and Heidelberg, next to the N3 highway. The rail connection will take off from Transnet Freight Rail's (TFR) mainline between Skansdam (Cape Town) and Glenroy (KZN). TFR issued Request for Proposals for a twenty-year

concession for the design, financing, construction, operation, maintenance and handover of a container terminal at Tambo Springs. In support of their bid, Barloworld Logistics approached RCE Projects to undertake a Scoping Study to, amongst others, develop the conceptual design layout of the planned Tambo Springs Container Terminal.

Key Features

- Phased implementation to limit capital expenditure on infrastructure by providing only the required facilities at a specific time in the project life-cycle;
- Future-proofed design to prevent wasteful future expenditure;
- Optimisation of land utilisation/prevailing topography;
- Terminal design compliant with the applicable Transnet standards, guidelines and standardisation directives;
- Initial and future constructability issues provided for;
- Acceptable operational efficiencies for rail and road vehicles as well as plant and equipment with excellent road and rail connectivity.

Services Provided

- Verification of the technical feasibility of providing a container terminal in line with the applicable Request for Proposal (RFP);
- Providing of various technical inputs to Barloworld Logistics to respond to the RFP. These included aspects such as a phased development plan, optimised use of land, existing topography and services, constructability plan, operating methodologies and mitigation of environmental considerations;
- Producing of conceptual designs for trackwork and civils, hydrology and drainage, bulk services, geotechnical, etc.;
- Developing the layout with topographical survey data as basis, complemented with aerial photographs obtained from a drone survey to assist with 2D line mapping of the site;
- Development of a terminal operating philosophy and product flow;
- Providing of budget cost estimates for each system component.

Outcome

RCE managed to successfully devise and apply their design principles and planning approach in the development of the Tambo Springs Container Terminal layout and associated facilities.

This resulted in a design that limits capital expenditure and risk by matching natural infrastructure and equipment investment breakpoints with operational demand as far as possible.