



Transnet Projects

Salkor: Electrical Locomotive Workshop



Background

Project Value: R50 m | Project Duration: 12 months

The Sishen-Saldanha line was commissioned in 1976 and built primarily for the export of iron ore from the Northern Cape through the Port of Saldanha. During April 2015 Transnet embarked on an infrastructure development

plan to increase the export capacity of the system. RCE Consultants were appointed for the design of the new Salkor Electrical Locomotive Workshop.

Key Features

The purpose of the Workshop is to perform locomotive provisioning and in-service light maintenance for 50 kV AC electrical locomotives. Provisioning includes trip inspections and related activities whilst in-service maintenance includes any light locomotive maintenance.

for locomotive provisioning and three lines for in-service maintenance. Selected lines are equipped with full inspection pit bays whilst the remaining lines have flat floor slabs. The workshop is equipped with a 10 ton overhead crane.

The building consists of 2400m² of workshop space and an Annex measuring 450m². The Workshop houses two lines

The Annex building houses offices, ablutions and mess facilities, specialist stores and equipment rooms.

Services Provided

The design services provided by RCE include the following:

- + Civil (earthworks for the building foundation, roads, stormwater, effluent and sewer infrastructure)
- + Structural (building foundation, structural concrete and steelwork)
- + Architectural Design
- + Electrical (lighting & power points)
- + Mechanical (forced ventilation, fire protection and air-conditioning)

Other services include:

- + Compilation of technical specifications
- + Estimation of bills of quantities
- + Preparation of tender documentation
- + Tender evaluation
- + Quality control inspections during construction

Outcome

RCE Consultants designed a fit-for-purpose locomotive workshop compliant with all the user requirements. The architectural design culminated in a modern and cost effective, low maintenance facility.

The revised processes enhance operational efficiency and locomotive utilisation by facilitating shorter locomotive turn-around times in the Salkor yard.

Functionally, the Workshop & Annex form part of the revised, integrated locomotive maintenance processes introduced as part of Transnet's increased export capacity drive.

The construction of the building and associated work were completed in 11 months with RCE personnel performing regular quality control inspections.