

Client: Transnet Capital Projects
Value: R 855 000.00
Services: Geotechnical investigation
Project Duration: Oct 2016 – Nov 2016

Re-Instatement of the Rosmead-Klipplaat Railway Line

Geotechnical Investigation

The Task

The purpose of the geotechnical investigations was to determine the soil properties for the design of proposed new railway loops for Transnet's Rosmead-Klipplaat railway line (Eastern Cape), i.e.:

- Sapkamma to Glen Conner (approximately 2.0km);
- Marais to Aberdeen Road (approximately 2.5km); and
- Koloniesplaas (approximately 2.0km).

Design Services

Nurizon was appointed to undertake a geotechnical investigation for the proposed new loops on the Rosmead-Klipplaat Railway Line, which consisted of a desktop study, site investigation works, laboratory testing and technical analysis.

The site investigation (for the three sites) consisted of the following elements.

- 51 tips pits excavated to a maximum depth of 3m, profiled and sampled according to approved standards;
- 51 DCP (Dynamic Cone Penetrometer) tests;
- Laboratory testing; and
- Technical analysis and reporting.

The rotary borehole cores were required to determine the soil properties, rock depth and any potential cavities and were logged as part of the investigation



The Result

The geotechnical investigation technical report provided information regarding the geology, in-situ material/rock properties (level of bedrock), founding recommendations (prediction of bearing capacities), the presence of ground water, excavatability, material stability, identification of problematic soil conditions and the suitability of in-situ material for foundation design, road building material and general fill.

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