

Client: Carnival Junction Property Development (Pty) Ltd

Value: R 21.3 million

Services: Electrical design, contract management and construction supervision

Project Duration: May 2015 - March 2016

Badenhorst Estate, Dalpark Extension 19

Apex Substation Upgrade, Electrical Reticulation and Street Lighting

The Task

Nurizon was appointed to undertake the design of the bulk and internal electrical infrastructure for the Badenhorst Estate development – a 300 hectare, integrated mixed-use development (light industrial, commercial and residential) in Benoni.

The objective is to supply 12MVA from the Benoni Apex Substation, via three 11kV cables to Dalpark Extension 19 in Brakpan. The internal network design included the medium voltage ring feeder cables, medium voltage equipment as well as street lighting and supplies for traffic signals.

Design Services

The scope of work includes the extension of the Benoni Apex substation control building and the installation of one transformer breaker, one bus coupler and feeder breakers. Three medium voltage (11kV, 12.9km) cables (only two will be used in the current phase) are installed from the Apex substation via existing streets to a new outdoor T4 RMU in Dalpark Extension 19. From here, new medium voltage feeder cables are installed throughout the development. A 315kVA miniature substation is installed to supply the two traffic signals and the street light installation. All services conform to Ekurhuleni Metropolitan Municipality specifications.

Specific design services included design development, document production and procurement; contract administration, inspection and close out.



Development plan courtesy of Boogertman & partners

The Result

A fit for purpose electrical infrastructure design was submitted to the client as part of the construction of the Badenhorst Estate Dalpark Extension 19 commercial development in Brakpan.