

Client: Triple J Property Developers cc

Project Value: R 140 million

Services: Geotechnical and Dolomitic Stability Investigation

Project Duration: 2015 – 2019

# Evergreens Fresh Produce Market, Gauteng

## Geotechnical and Dolomitic Stability Investigation

### The Task

Nurizon Consulting (Pty) Ltd. was appointed to undertake the structural and civil engineering detail design elements of a new fresh produce market development for Evergreens in Kempton Park, Gauteng

Part of the appointment was the geotechnical investigations and dolomitic stability evaluation.

### Design Services (Geotechnical)

Dolomitic stability evaluation and geotechnical investigation for this development.

The investigations consisted of the following elements:

- Desk study – previous investigations undertaken;
- Rotary core drilling;
- Borehole profiling;
- Test pit profiling and sampling;
- Laboratory testing;
- Analysis;
- Foundation design; and
- Dolomitic Stability Evaluation.



## The Result

- The geotechnical investigation technical report provided information regarding the geology, in-situ material/rock properties (level of bedrock), founding recommendations, 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.
- The dolomitic stability evaluation report providing information in terms of:
  - Dolomite Area designations;
  - Inherent Hazard Class designation; and
  - Development Criteria.
- The original geotechnical report (done by others prior to this development planning) recommend that any large structure be founded on piles. Following the investigation and evaluation by Nurizon, it was proved that piling was not required and that the building will be founded on an engineered soil raft. This solution was reviewed and approved by the Ekurhuleni Municipality's Dolomite Risk Management department. By adopting this alternative foundation design, a saving of more than R 50 million was realised.



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