

Discovery Basement

Deep Basement ($\pm 32\text{m}$ deep) Excavation & Lateral Support in the heart of the economic centre of South Africa, Sandton



Project Facts

Developer

Growthpoint Properties / Zenprop Property Holdings

Client - Principal Earthworks Contractor

Zero Azania / Diesel Power JV

Consultants

Engineer: Pure Consulting

Project Manager: Morta Project Management

Quantity Surveyor: Pentad

Quantity

15,540m² Lateral Support

Period of time

End February 2014 to Mid February 2015

Franki Africa

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The Discovery Building basement Bulk Excavation, Blasting and Lateral Support contract is the largest project of its nature ever undertaken in Sub-Saharan Africa.

The contract was negotiated on the back of our performance on the previously awarded Sasol Head Office contract.

The programme was extremely tight with a non-negotiable access date for the Building Contractor of 14th October 2014. To achieve this programme, close cooperation with the Principal Earthworks Contractor was required.

Halfway through the project a lateral support re-design was necessary as a result of unforeseen ground conditions and an overblast of a section of rock. This required temporary backfilling of some faces to ensure stabilization, while the re-design was being finalized and additional anchors installed.

Our competent and experienced in-house design team played a crucial part in re-designing the lateral support system, which was reviewed and confirmed by Keller - Special Projects.



Product description

15.540m² Lateral Support comprising of:

- 219 No. 600 mm Ø soldier piles between 15 & 18m deep
- 1.311 no. strand anchors ranging from 12 to 24 meters in length
- 943 No. rock bolts
- 15.540 m² 150 mm thick scraped permanent gunite walls

Ongoing monitoring of movements of the faces confirmed the competency of our design.

Despite the challenges the overall completion was achieved on the 17th February 2015, two months ahead of the revised Contract Programme completion date. The Building Contractor was also able to commence work without delays to his original programme, with partial phased handovers of areas.

This project combined all values of the Franki Group; Teamwork, Dedication, Application and Perseverance!

