



## “Little Manhattan” building

Design of deep foundations

2014 - 2015



MADAGASCAR -  
Antananarivo

Client

LAGEOTEC

### Highlights

21-storey tower



### The Project

The “Little Manhattan” project consists of the construction of a 21-storey tower in the Ivandry district of Antananarivo, Madagascar.

It is a residential building with three parking levels, its architecture inspired by the New-York buildings of the 1950s.

The project was initiated by DREAMSLAND and the architects MCA RAHARISON & ASSOCIATES, in partnership with the ASSIST group.

#### Key features

- Determination of geotechnical parameters
- Talren (stability) and Foxta (foundations) calculations
- Recommendation of construction specifications

### Our Services

TERRASOL worked on this project in 2014 and 2015, at the request of engineering firm LAGEOTEC, in the context of a geotechnical design assignment covering the design of the deep foundations of the building and the check of the stability of the project.

The following geological layers are encountered under the future structure:

- a surface lateritic layer of sandy brown silt, of variable thickness, with rocky fractured blocks;
- then an altered rock layer 10 to 15 m thick;
- and below, rocks that are sufficiently alteration-resistant to have remained as relief when the erosion surface was formed.

TERRASOL carried out the following steps:

- synthesis of available geotechnical data and determination of the geotechnical parameters;
- pile design using the Foxta software;
- stability calculations using the Talren software;
- recommendation of construction specifications.

#### terrasol

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