



Magasin Du Nord is a trading center in Copenhagen's center. It combines several buildings built in a separate time in the past. The oldest is at more that 160 years.

The purpose of making this analysis is to assess the buildings' sensitivity to proposed new metro line, part of which goes directly under the buildings.

Investigation was made (on site and in the archives from the Municipality) and laser scanning was performed to create an accurate 3D model which was used to analyse the buildings (with Robot Structural Analysis). Based on this analysis decisions were made for the upcoming construction of the new metro line.

During the investigation and testing of the building are made:

- Geotechnical analysis: change in groundwater level.
- Effects on the building due to noise, vibrations and consequence of the movement of trains.
- Load capacity of the main load-bearing elements.

Based on this analysis decisions were made for the upcoming construction of the new metro line.

### EKJ Bulgaria's services:

- Assessment and analysis of the main structural elements
- Geotechnical analysis

Period: 2013

