

Abstract

The diploma thesis deals with the implementation of engineering geological surveys for the construction of the A metro line in Prague, especially the evaluation of the methodology in individual stages during its 45-year history of construction. During the construction process, both the construction technology and the approach to providing the engineering geological basis for the project changed. The basis of the work is a thorough study of archival documents supplemented by field documentation and evaluation of the rock mass at the rock outcrops. The thesis included a brief history of the construction of the A metro line with the characteristics of all the technologies used in the excavation, which have changed over time. The engineering geological conditions along the route were evaluated, complemented by a clear longitudinal profile of the entire A line. The aim of the work was to assess the evolution of the survey methodology, which has slightly changed, so that differences between surveys carried out in the past and those carried out today are apparent. The methods of excavation have evolved over time, and the requirements within the exploration probes and the mechanical and technological testing have changed based on these. In addition, new methods have been used in geophysical or carottage surveys depending on the development of the methods themselves.

Key words: metro, research, engineering geological survey, phasing of works, survey methodology, boring technology