



CHALMERS

Kandidatarbete

Examenskod ACEX10



After the slide, from ejatlas.org

Reliability of 2D simulations

It is common to use simulations in two dimensions to assess the stability of structures and excavations. This reduces numerical costs and increases the speed of the simulations. In this way part of the information available for the surrounding material and the geometry of the structure is lost. Three dimensional simulations are much more demanding, so should be avoided if they are not necessary.

Analyze and assess in situ data on the Haga station for the Västlänken project provided by Trafikverket. Perform simulations of a simplified geometry of the station in two and three dimensions. Draw a conclusion of whether it is acceptable to perform simulations in two dimensions only and under which conditions.

Suggested literature:

- B.H.G. Brady, E.T. Brown: Rock Mechanics for underground mining
- J.A. Hudson, J.P. Harrison: Engineering Rock Mechanics, an introduction to the principles

Målgrupp

Samhällsbyggnadsteknik

Grupstorlek

3-6

Speciella förkunskaper

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Kan projektet dubleras?

Ja