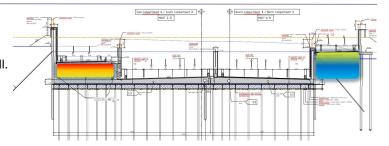


## Master's Thesis High capacity heat storage in tunnel cavities

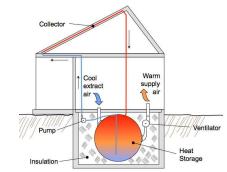
Civil 7 is a young and growing engineering consultancy with an international focus in underground construction. We are offering a Masters thesis for a geotechnical or geothermal science engineer to develop a conceptual design and feasibility study for the A9 Tunnel cavities and Amstelveen city hall.

Civil 7 offers students...

- intensive daily guidance by dedicated experienced seniors;
- responsibility and ownership of your project;
- empowerment within a young engineering start-up;
- focus on international construction projects;



A9 tunnel for implementation



Over half of energy consumption is heat. Solar powered heat pumps just won't cut it because the cold winter only supplies one tenth the solar energy of summer. This project will look at upscaling capacity of heat storage systems by using large empty cavities of the A9 tunnel for high volume, high temperature heat storage in order to supply the new Amstelveen city hall and renovated Meander apparments with winter heat and summer cooling.

The work consists of 50% modelling and 40% design of concept and 10% assessing planning and permitting conditions.

Skills candidates must possess:

- great at technical analysis and design
- friendly, open and precise in communication
- work approach in balance: both in-depth problem-solving and practical 'getting-it-done'

- profile: MSc. candidate in geotechnical engineering, geothermal energy. Previous knowledge of thermodynamics is an advantage. Questions on the vacancy and/or an application may be sent with your c.v. and grade list to: <u>vacancies@civil7.nl</u>



Civil 7 B.V. Stationsstraat 36 A, 3811 MK Amerfoort, Netherlands + +31 (0)6 1552 4664 · vacancies@civil7.nl · www.civil7.nl · KvK 76289567

Concept for upscaling