

CROSS-CITY LINK ZURICH

English



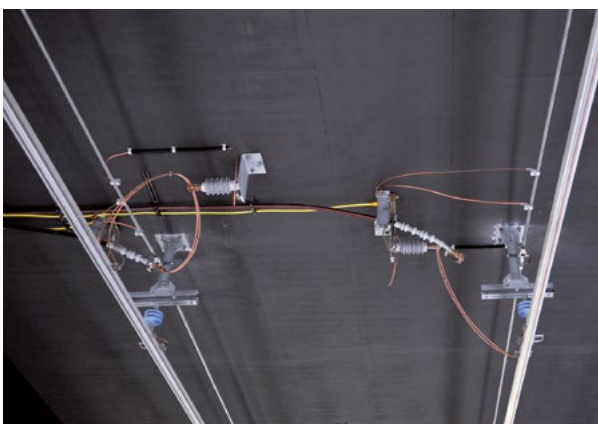
TracFeed[®] OSS & TracFeed[®] AEE
Project Report



ACCELERATION IN SWITZERLAND WITH RAIL POWER SYSTEMS

Seven years after construction started on June 12th of 2014, the first section of the cross-city link was inaugurated in a festive ceremony at Zurich's main station.

Planning for this project dates back to the 1970s when the idea of rearranging Zurich's rail hub was first conceived. The project was delayed, however, as priorities shifted. The "Rail 2000" programme established by the Swiss Federal Railways (SBB) brought this project back to the fore and led to the approval of construction in 2006.

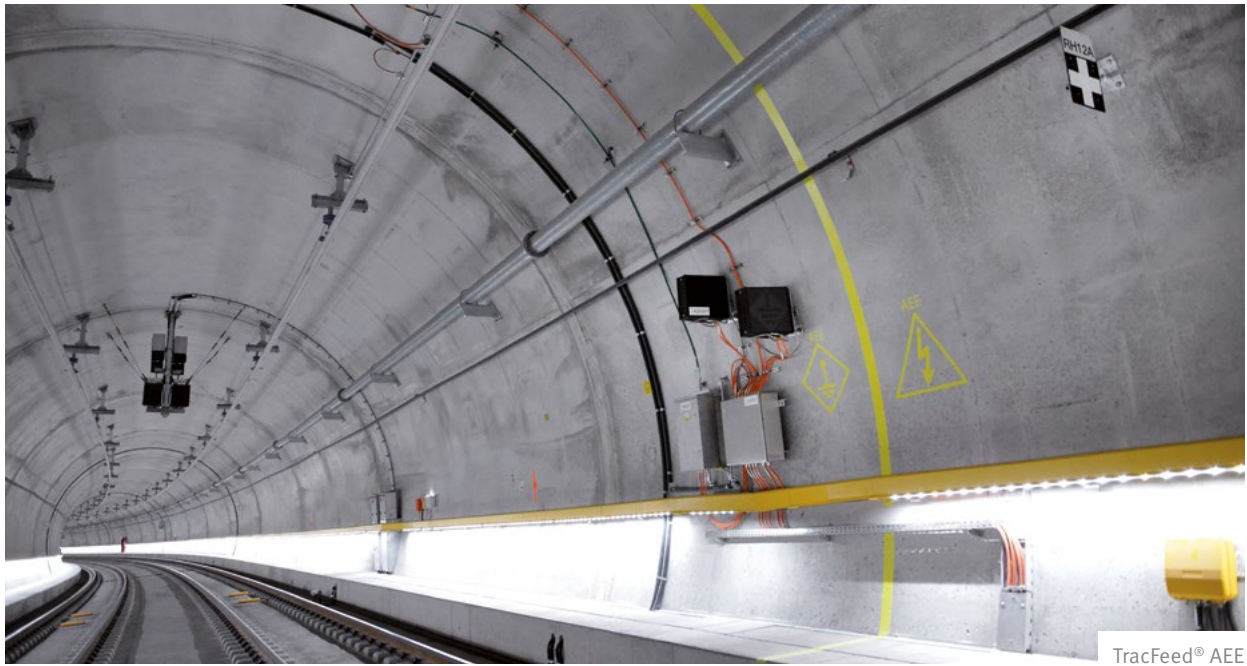


The cross-city link is one of the largest structures ever built for the Swiss railway system. Up to 1 000 people were working on construction at the same time. The core of the project is formed by the underground station Löwenstrasse, which is connected to Zurich-Oerlikon by the 4.5 km Weinberg Tunnel, running under the mountain of the same name. This portion of the project also involves the renovation of Oerlikon station, scheduled for completion by 2016, which is intended to allow trains to pull into the tunnel without having to pass any junctions.

The need for strict compliance with electromagnetic limits posed an additional challenge throughout this project. Since the Weinberg Tunnel passes under the university hospital, care had to be taken that none of the sensitive medical equipment would be impaired in the event of a short-circuit. To ensure effective short-circuit protection, Rail Power Systems developed a solution that was subjected to short-circuit testing and approved by the client.

Facts

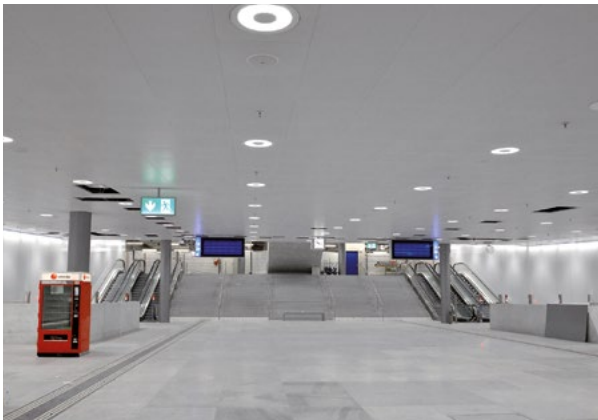
- | | |
|----------------------------------|----------------|
| • Length of TracFeed® OSS | approx. 15 km |
| • Supports | approx. 1 500 |
| • Speeds | 120 km/h |
| • System | 15 kV, 16.7 Hz |

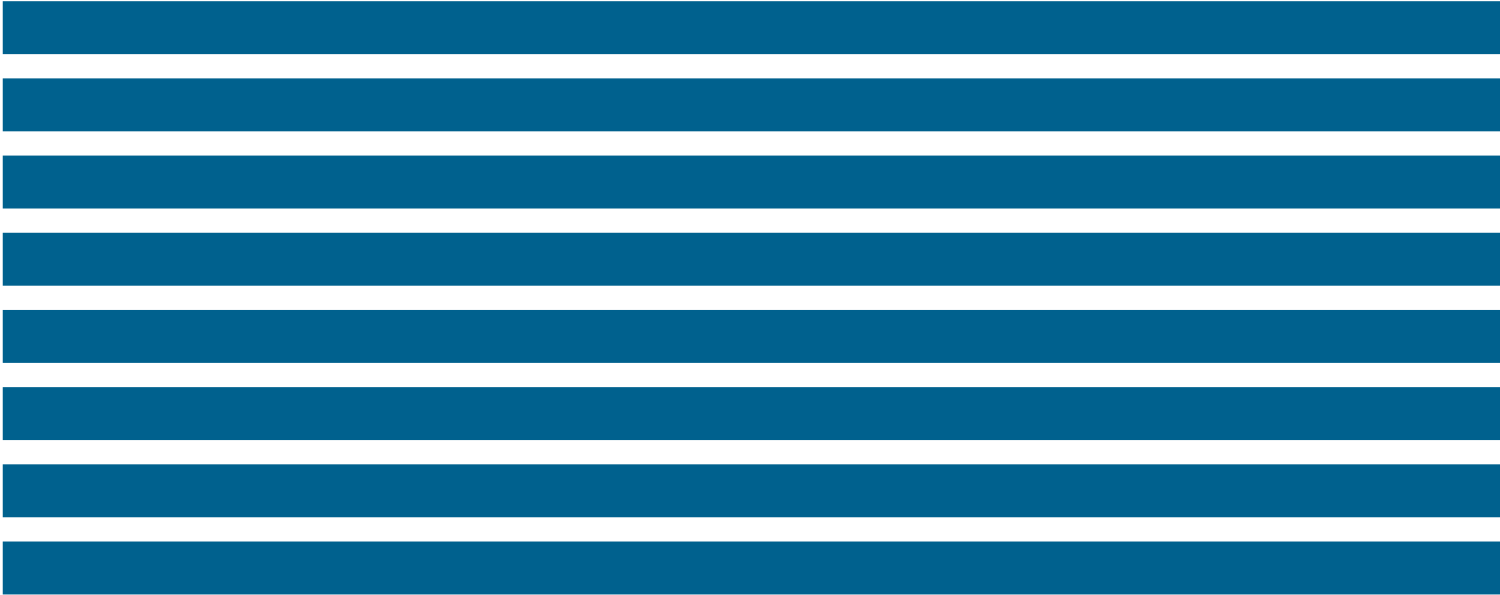


TracFeed® AEE

Another difficult feat to accomplish was the implementation of the shut-down and earthing concept requested by the customer. With interventions in electrified railway tunnels, rescue forces must be certain that the contact line in their operational section is switched off and earthed. The boundaries of these sections must also be recognisable, particularly if they do not comprise the entire tunnel. In accordance with the requirements of the client, remotely operated earthing equipment was developed, which was issued type approval by the supervisory authorities and has been installed in the Weinberg Tunnel of Zurich's cross-city rail link.

Scheduled service on the cross-city link commenced just in time for the "minor" timetabling change in Switzerland on June 15th, 2014. As of the timetable change in December of 2015, long-distance trains now join commuter trains in using the new tunnel route and the underground station. The completion of this last step has put this main pillar of the Swiss railway system to full use and contributes in a major way to the stabilisation of the timetable and the flow of operations.





© 2016 All rights reserved by Rail Power Systems GmbH.

The specifications set out in this document apply to popular applications. They do not represent performance limits. This means that divergent specifications may be attained in specific applications. The contractually agreed specifications alone shall apply. We reserve the right to effect technical modifications. TracFeed® is a registered trademark of Rail Power Systems GmbH.