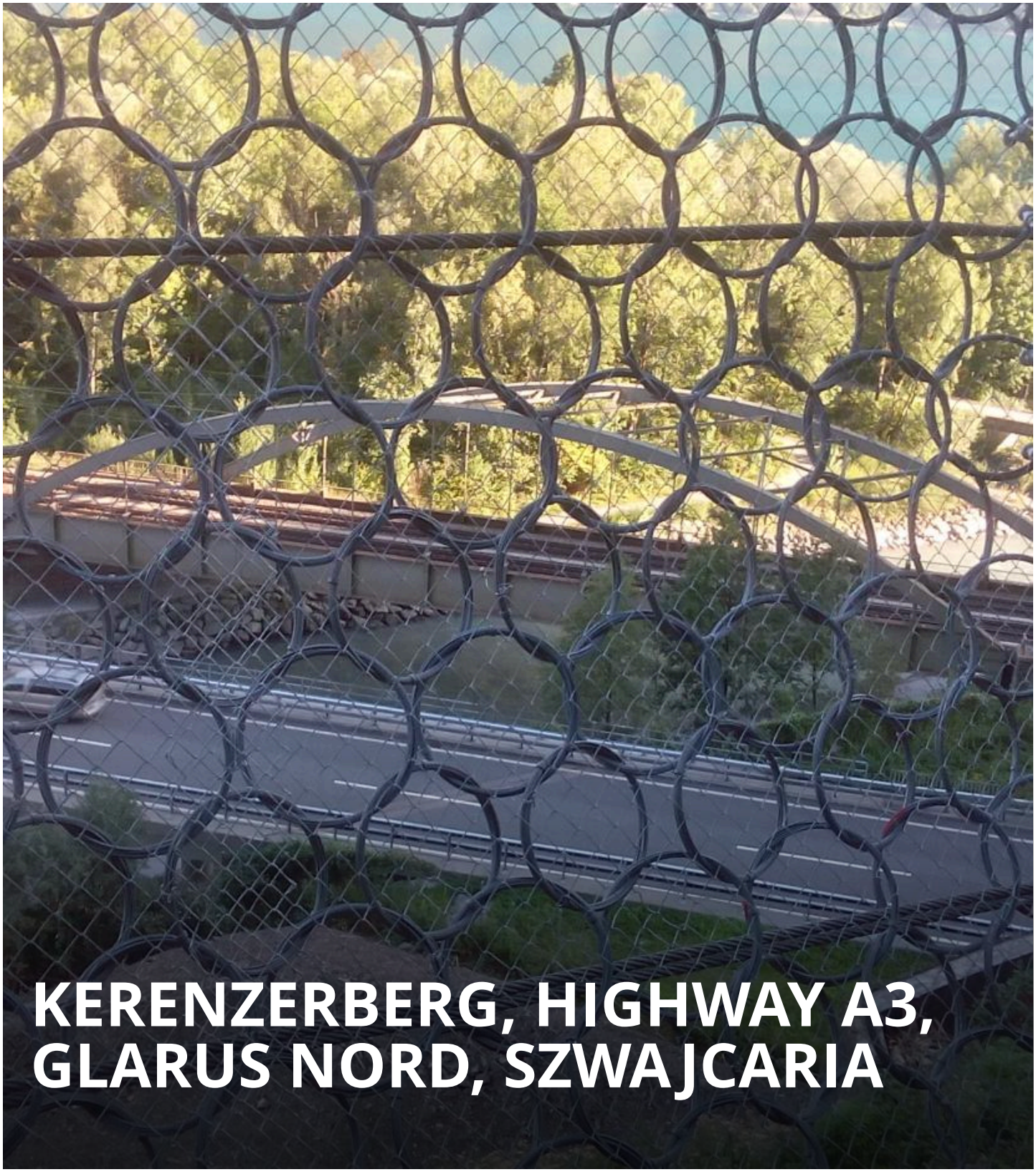

KERENZERBERG, HIGHWAY A3, GLARUS NORD, SZWAJCARIA

Ochrona przed obrywami skalnymi

BRUGG
Geobrugg
Safety is our nature

Kerenzerberg, Highway A3, Glarus Nord

Ochrona przed obrywami skalnymi

Projekt	Kerenzerberg, Highway A3, Glarus Nord
Lokalizacja	Filzbach
Kraj	Szwajcaria
Rok Instalacji / montazu	2015
Inwestor	FEDRO Federal Roads Office, Switzerland
Projektant	Project Partners Ltd Consulting Engineers, Grancia-Lugano, Switzerland
Wykonawca	CRESTAGEO, Chur, Switzerland

Opis sytuacyjny projektu

Highway A3 was opened in 1964 as a 2-lane road passing through the topographic bottleneck of the Walensee. The Walensee is one of the main thoroughfares between the Swiss plains and the mountainous regions and ski resorts. The roadway has always been exposed to rockfall and rockslides from the beginning. In 1986, due to increased traffic volume, one of the most frequented tunnels was expanded to four lanes. Naturally, geohazard protection measures were required to be installed along with the roadway expansion.

In 2012 it became apparent to the Swiss Federal Roads Office FEDRO that several hot spots for geohazards would require immediate maintenance to keep Highway A3 open. The identified hot spots include various tunnel entrances, steep slopes and sheer rock faces along the roadway. The project planning phase began in 2013, and by the end of 2015 the first protection systems of Geobrugg's newest generation were installed.

Official project name at the FEDRO, Federal Office for Roads: Glarus Nord

Overall costs of the protection project (estimated in 2014): 11 Mio. Swiss Francs

Opis zastosowanego rozwiazania

This description only details the northwest oriented tunnel entrances of Ofenegg and Kerenzerberg.

The overall project included a portfolio of Geobrugg flexible barrier systems protection measures to contain rockfall events. The selection was based on extensive rockfall analysis, taking into account bouncing heights as well as energy impacts. System strength, height and line lengths were set to maximize safety and optimize cost-effectiveness.

Above the two tunnel entrances the following Geobrugg rockfall protection systems were installed in geographical order from southwest to northeast:

- Barrier 1 : RXE-500, height 3 m, length 31 m
- Barrier 2 : RXE-500, height 3 m, length 26 m
- Barrier 3 : RXI-150, height 4 m, length 55 m
- Barrier 4 : RXI-025, height 2.5 m, length 14 m
- Barrier 5 : RXE-1000, height 4 m, length 25 m
- Barrier 8b : RXI-150, height 4 m, length 17 m
- Barrier 8c : RXE-1000, height 4 m, length 25 m
- Barrier 9 : RXE-8000, height 7 m, length 62 m
- Barrier 10 : RXE-3000, height 5 m, length 50 m

More information:
Movie of the 2015 RXE-8000 installation
Slope protection of this site "Muehlehorn"

Chroniony obiekt Road, Railway

Inne zainstalowane aplikacje	Stabilizacja skarp
Zabezpieczenie przeciwkorozyjne	Galvanized, GEOBRUGG SUPERCOATING
Wytrzymałość systemu	3000 kJ, 500 kJ, 1000 kJ, 8000 kJ
Wysokosc ochronna systemu	2.5 m, 3.0 m, 4.0 m, 5.0 m, 7.0 m
Dlugosc systemu	14 m - 62 m

W celu uzyskania dokładniejszych informacji skontaktuj się z naszym Przedstawicielem.

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