



N8 Tunnel Kaiserstuhl, Lot 19 (CH) Waterproofing

Country	Switzerland
Type	Road, Highway
Client	Canton Obwalden, ASTRA
Main Contractor	Frutiger AG
Execution of the work	Renesco Inc.
Designer	Emscher & Berger
Construction Period	2026-2028

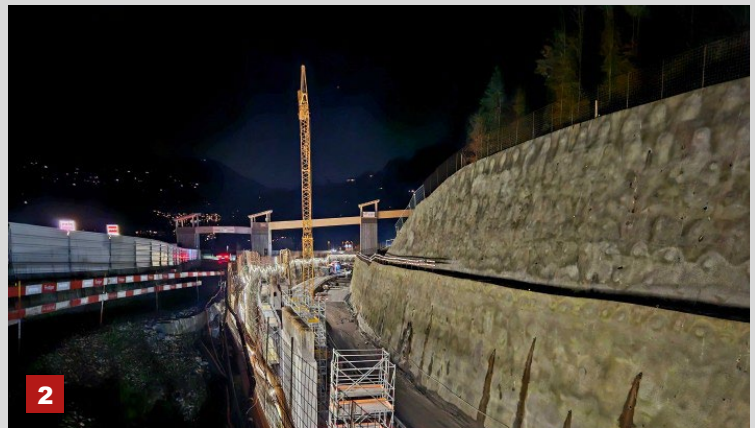
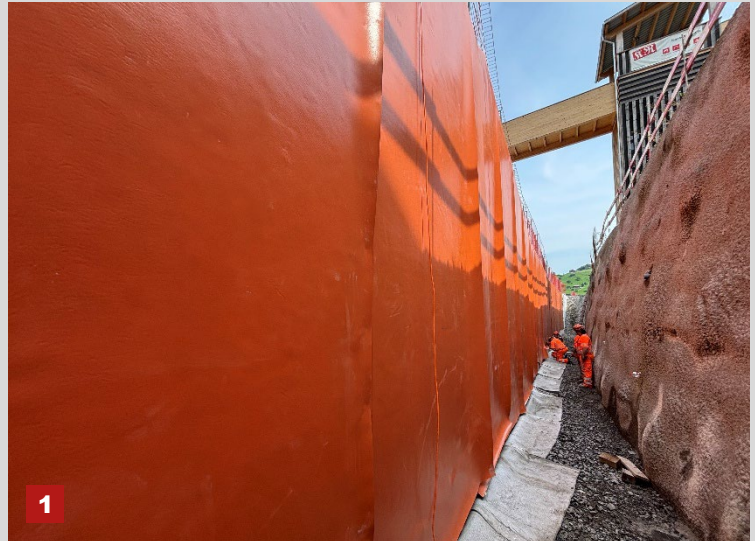
Project Description

The road section N8 Lungern-North to Giswil-South is a project to complete the national road network and comprises the following main project components: Tunnel Kaiserstuhl (mined, 1'776 m) with a parallel safety tunnel, 9 x cross passages, 2 x emergency niches (caverns), 2 x electrical stations, the Giswil-South junction with 88 m cut & cover section, the Lungern North junction with 225 m cut & cover structure and the replacement of the Bruenig road.

Scope of Service

Supply & Install of the waterproofing system according to SIA 272 (Swiss standard).

- At the mined section (tunnel, niches) a 3 mm thick PVC-P based sheet membrane was installed, together with a drainage/protection geocomposite/geotextile and a 2 mm thick protection sheet membrane, including water barriers, BA anchors, terminations and penetrations.
- At the cut & cover sectors a post-applied waterproofing system was installed. The 3 mm thick PVC-P based geomembrane was glued over the entire surface of the existing concrete structure with a 2-K-PU based adhesive. This system combines the advantage of flexible sheet waterproofing with the *fully adhered approach characterized by:
 - Thermal-welded seams (no adhesive, approved technology, durable joint quality)
 - Well established flexible geomembranes & properties (prefabricated, dynamic perforation resistance, track records)
 - Prevent lateral water underflow between concrete structure & membrane (system approach)
 - Possibility of substrate inspection & repair before applying the final waterproofing (risk assessment)
 - Substrate levelling (no gravel pockets, integrity of the final waterproofing)



1. Cut & Cover Section, post-applied waterproofing
2. Cut & Cover Section
3. Mined Tunnel Section with waterproofing