

## COVER ROSENBERG - OLMA



### Cover Rosenberg, Switzerland

The "Cover" of the east portal of the Rosenberg tunnel on the A1 city-highway. The "Land Reclamation" enables the construction of a new exhibition and event hall and expansion of the exhibition infrastructure.

#### Project scope

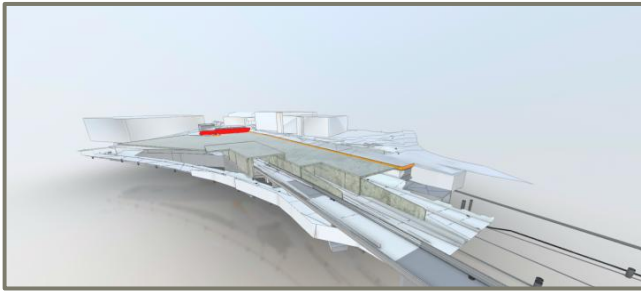
- Almost 18'000m<sup>2</sup> of the A1 are covered
- A new larger exhibition hall
- Direct connection to the 3<sup>rd</sup> Rosenberg Tunnel will be redesigned and built

#### Challenges

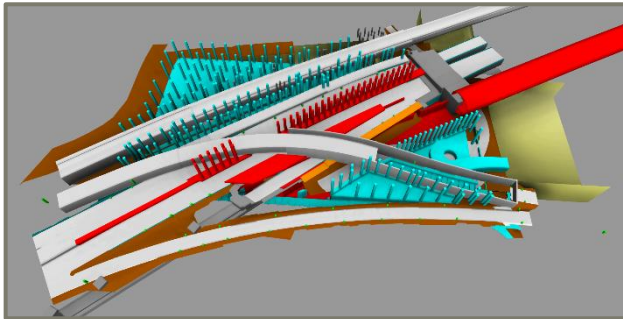
- Complex project in the national road network A1
- Several projects in one project
- Numerous project participants
- Inventory modeling

#### Amberg services

- Inventory by laser scanning
- Inventory modeling
- 3D modeling of underground elements
- BIM-Coordination
- BIM-Management
- BIM-Implementation
- Communications platform
- 4D modeling
- Static analysis



- New cover with existing models



- Bottom view



- Inventory based on laser scans

## AMBERG FACTS

### Contract value Amberg

- approx. CHF 0.4 million

### Timeline

- planning since 2015
- planed execution 2021

### Assignment details

#### Inventory modeling

- inventory through Mobile Mapping
- inventory modeling using virtual programming languages
- Part of automatic inventory modeling of 2D plans into the 3D model

#### 3D-modeling

- 3D modeling using virtual programming languages
- Model-based quantity determination
- Model-based variant comparisons
- Partially integrating the 3D geology model

#### Coordination

- Work will be done with coordination models
- 3D models are used to derive 2D plans
- CDE will drastically reduce the eMail communication

## CLIENT FACTS

### Total cost

- CHF 163 million.

### Project phases

#### Preliminary

- Development of concepts (partially already done by preliminary studies)
- Presentation of possible solutions
- Evaluation and assessment of the solutions options
- Accompanying the preliminary decisions

#### Construction project cover

- Dimensioning of excavation, foundation, support structure and structural framework
- Creation of traffic guidance national road
- Designing traffic access, supply and disposal lines
- Study of sealing, fire protection and ventilation cover (excl. tunnel ventilation)
- Presentation of the construction project
- Creation of construction and installation plans
- Creation of the appointment program in coordination with maintenance planning of FEDRO Federal Roads Office

### Contact person

Civil Engineering Office of the Canton of St. Gallen, Switzerland

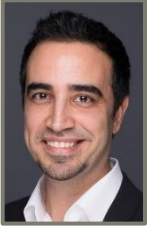
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## AMBERG BIM-Team at the Swiss-BIM-Congress

