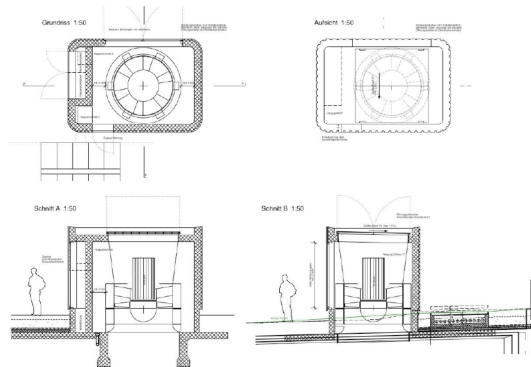


Integration of jet fans and partition wall



Smoke extraction units (24 units)



Conception of high park and façade



Visualization of the future portal Aubrugg

Description

The Enclosure of Schwamendingen designates the renovation of the existing Schöneich Tunnel and its extension until Aubrugg by means of a coverage.

The coverage of the National Road in the area of Schwamendingen provides the residents there with a massive reduction of the immisions (noise, air contaminants), the route having a DTV of more than 120,000 vhcl./day. The traffic runs over 2 to 3 lanes per direction, and entries and exits exist in the tunnel.

Due to the urban construction requirements, the height of the future construction must be kept as low as possible. Accordingly, the targeted smoke extraction was handled by means of vertical axial ventilators extracting directly from the traffic area (24 units in total). The longitudinal flow in the tunnel is influenced by jet fans (32 x 630 mm + 14 x 1000 mm).

To comply with the air contaminant thresholds, the enclosure of Schwamendingen at the portal Tierspital has an ambient ventilation which extracts the major part of the airflow driven by the vehicles and expulses it in a targeted manner. In doing this, the high requirements for noise reduction, in particular, must be taken into account.

Services

So far, HBI Haerter Consulting Engineers has provided the following services:

- Elaboration of the part traffic area and ambient ventilation on the level of the execution project and detailed project
- Extensive review of variants on the subject of ambient ventilation (type of portal air extraction and positioning)
- Elaboration of the detailed control specifications for tunnel ventilation
- Coordination and treatment of the interfaces towards the construction and the other BSA installations

The future services are:

- Submission, proposal evaluation and ordering recommendation for the ventilation components
- Construction management on site (day and night work)