Einhausung Schwamendingen (ZH) – Lärmschutzmassnahme



SHORT DESCRIPTION

Construction of the new cut-and-cover tunnel with a length of 940 metres, a width of 30 metres and a height of 8 to 10 metres.

THE PROJECT

As part of the work to **enclose approximately one kilometre of the N01/40 national road between the motorway junction at Aubrugg and the Schöneich Tunnel**, a commercial property is being created that is some 30 metres wide and is the only one of its kind in Switzerland. Plans are in place for a new overland park – a greenery-filled meeting place that runs the length of the building roof, which locals will be able to access via ramps, stairs and lifts. Its purpose is to reconnect the various parts of the district, enhance the quality of life in the local area, and provide a space for rest and relaxation. Encapsulating the motorway will virtually eliminate the negative impacts of noise and exhaust fumes that are usually associated with main roads. FEDRO, the Swiss Federal Roads Office, is funding this pioneering project together with the Canton and the City of Zurich.

SERVICES IN DETAIL

- Concrete: 115,000 m^3
- Installation of concrete beams
    - Quantity: 234
    - Weight per beam: 70 tonnes
- Foundation engineering: CHF 60 million

- Microtunnelling: 1 km

CHALLENGES

General challenges:

- Traffic management
- 2 x 2 lanes
- Environmental impact (noise, waste water)
- 23 intermediate deadlines (penalty system)
- Complexity of the building project
- The tram tunnel snakes beneath the existing motorway for a length of 450 metres; it is not permitted to subject this tunnel to any new stress
- Moving the ready-mixed concrete beams
- Geology / groundwater level
- Existing Schöneich Tunnel can only be worked on overnight
- Billing across 8,500 individual items
- Delimination of services
- Limited space due to inner-city location
- Forming a joint venture
- Capacity coverage: management staff, commercial, inventory
- Provision of expertise:

FURTHER INFORMATION

the joint venture has already used Building Information Modelling (BIM) in the submission phase

FACTS

Location	Tulpenstrasse 4, Zürich , Switzerland
Status	Under construction
Construction volume (value of our services)	53.055 M CHF
Start of construction	September 2018
Completion	May 2024
Building owner	Bundesamt für Strassen ASTRA (ASTRA Winterthur)
Contracting entity	Kanton und Stadt Zürich
Construction management	INGEK12, c/o Locher Ingenieure AG; Pelikanplatz 5; 8022 Zürich
Planning	INGEK12, c/o Locher Ingenieure AG; Pelikanplatz 5; 8022 Zürich
Construction management	INGEK12, c/o Locher Ingenieure AG; Pelikanplatz 5; 8022 Zürich

SERVICES

- Road construction
- Special Foundations
- Civil engineering
- Urban transport infrastructure
- Road transport infrastructure
- Noise protection

https://implenia.com/en/references/detail/ref/enclosure-construction-in-schwamendingen-zurich-noise-protection-measures/

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