Hornboden railway overpass



SHORT DESCRIPTION

Construction of a new railway overpass at Hornboden in Grenzach-Wyhlen

THE PROJECT

Implenia was commissioned to construct a new railway overpass in Grenzach-Wyhlen. The structure was built in a construction pit next to the railway embankment before being moved underneath it using temporary bridges. These bridges were then removed and the four wing walls installed.

CHALLENGES

When excavating the construction pit, it was discovered that the original plans to lower the groundwater level would not be possible due to gravel deposits and nearby contaminated sites. Consequently, a water-tight lining had to be created both for the construction pit and for the final position of the structure. This was done using underwater concrete base slabs. The construction pit was built as a box with sheet pile walls, while a combination of sheet pile walls and overlapping bored pile walls consisting of small drilled bored piles (30 cm in diameter) was used for the final position owing to space constraints.

FACTS

Location	Hornboden , Grenzach-Wyhlen , Germany
Status	completed

Construction volume (value of our services)	2 M EUR
Start of construction	October 2012
Completion	April 2014
Contracting entity	DB Netz AG, Schwarzwaldstraße 86, 76137 Karlsruhe

SERVICES

Structural engineering