

City of Emden – Ems-Jade-Canal

Project Owner:

City of Emden

Client:

Ludwig Freytag GmbH & Co. KG

Quick Info:

Renovation works in terms of a bascule bridge via the "Rote Siel", substituting a swing bridge

Technical Information:

System:	Micropiles into bank wall (150 GEWI piles / Ø 32, 40, 50 and 63.5 mm)
Quantity:	150 pcs.
Length:	15,50 – 34,20 m
Test Load:	up to 1.220 kN
Technique:	Double head drilling (rotary, rotary percussion)
Building Ground:	Sand
Time Frame of Works:	September 2011 until July 2012



Image 1

Works included renovation of the embankment of the "Rote Siel". At the same time a pedestrian bridge in form of a bascule bridge and stairway were built. The drillings for the support structures and abutments were carried out from land. The inclined piles for the bank walls were installed from a pontoon.

The piles were brought into by double head drilling to ensure safe penetration of the various pending fillings and underlying layers. Moreover, cession of land had to be avoided due to the adjacent buildings.

The anchoring was carried out in the fine and medium sand layer. Additionally, majority of the piles needed to be extended due to the missing sealing pressure in the course of the piling works.