## REFERENZ HARBOUR CONSTRUCTION AND MARINE ENGINEERING

# Flood protection Weserbahnhof 1, Bremen





Construction of a new Quay wall in front of an existing structure in the vicinity of "Weserbahnhof 1" in the City of Bremen with a length of 356 m, consisting of a combined steel sheet pile wall, anchored by inclined micropiles including equipment, super-structure as well as flood protection wall, reinforced concrete wall and steel wall.

The project included these main components:

- Construction of a new quay wall in front of the existing quay wall as a combined sheet pile wall with fittings (ladders, bollards and fenders)
- Installation of king-piles and sheet piles, 85 pcs each, by low-vibro hammering
- · Installation of back-anchoring and waling
- · Installation of a reinforced concrete beam
- A new cantilever retaining wall made of concrete steel as a flood protection wall
- · Installation of new flood protection steel walls
- · New construction of a dike opening
- Installation of a gravel base as a temporary surface of the lower promenade
- Line construction for water and power as well as drainpipes
- Dismantling of underground facilities, foundation elements and quay equipment
- · Dismantling of sheet pile wall

Joint venture with Tiefbau GmbH Unterweser

# Contract Value:

~5,2 € Mio

#### Executed by:

F+Z Baugesellschaft (TGF 50%)

#### Employer:

WfB Wirtschaftsförderung Bremen GmbH

## **Construction Period:**

2012-2013

#### Site:

Bremen

## **Specifications / Main Quantities:**

## Drilling injection piles

85 pieces.

Intermediate piles 85 pieces

Bearing piles 85 pieces
Demolition / dismantling

10,000 m<sup>3</sup>

Earthworks 6.000 m<sup>3</sup>

Concrete 2.000 m<sup>3</sup> Civil engineering 2.000 m