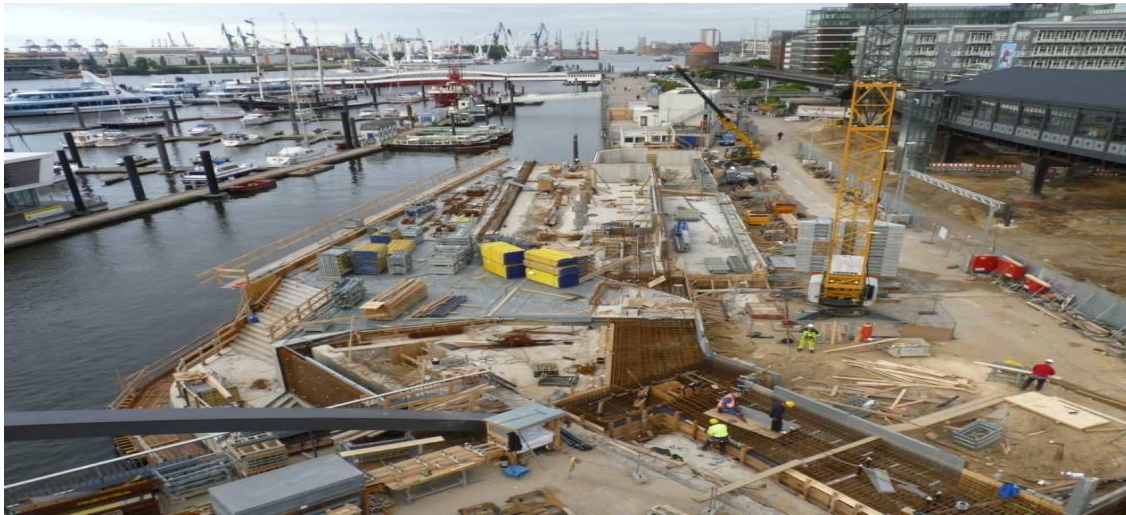


## REFERENZ HARBOUR CONSTRUCTION AND MARINE ENGINEERING

### Flood Protection Binnenhafen – Schaartor Los 2, Hamburg



DEPENBROCK



The existing flood protection is part of Hamburg's current flood protection line from the 1960s. The area of the construction measure was designed for a design water level of NN + 6.70 m plus approx. 30 cm freeboard.

In accordance with the guideline for the calculation and determination of target heights in public flood protection, the flood protection is adapted to the current design water levels. A target height of  $\geq 7.60$  m applies to the area of the construction project.

The new flood protection structure has been raised to meet the new requirements and also moved further into the Elbe. This allows the new Alster footpath to pass underneath the Niederbaum bridges.

The foundation was made using a sheet pile wall anchored back at the head with grouted piles. After silt dredging and soil filling, the concrete structure was built in five sections. Onshore large-diameter bored piles and onshore grouted piles were constructed.

**Contract volume:**

~ 5,9 € Mio

**Contractor:**

Depenbrock Ingenieurwasserbau  
former: F+Z Baugesellschaft (KGF 50%)

**Client:**

Freie und Hansestadt Hamburg

**Construction time:**

2010-2011

**Location:**

Hamburg

**Specifications / Main Quantities:**

GEWI piles,  
type 63.5 and 63.5 Plus DKS 130 pcs.  
Reinforced concrete bored piles 40 pcs  
Reinforced concrete 2,450 cbm  
Demolition 1,000 cbm  
Harbour silt disposal 3,450 cbm  
Soil backfill 10,000 cbm

DEPENBROCK



## REFERENZ HARBOUR CONSTRUCTION AND MARINE ENGINEERING Flood Protection Binnenhafen – Schaartor Los 2, Hamburg



The concrete structure contains, among other things, the approach and stop piers for the flood protection gates, which can be moved in front of the two Niederbaum bridges in the event of a storm surge.

The existing eastern and western Niederbaumbrücke bridges were integrated and a connection to the Otto Sill Bridge was created. A square and an inviting staircase have been created next to the western Niederbaumbrücke, inviting visitors to linger and take in the harbour and Hafencity.

The footpath to the bridge was widened by a steel construction.

The joint venture was realised together with HOCHTIEF Solutions AG, Civil Engineering Marine and Offshore.

