

## Boston Tidal Barrier

Boston, UK

The £100m Boston Barrier Tidal Flood Alleviation Scheme provides improved flood protection to more than 13,732 homes and businesses, protecting against tidal surges such as the one in 2013 which flooded more than 820 homes and businesses.



### The project

To design and install ground anchors with a 100-year design life to support the new sheetpile wall in front of the existing left bank quay wall within The Port of Boston, on the River Witham, Boston.

## The challenge

The main challenge was installing the 73No 4-strand SBMA anchors to a depth of 40m at 30-degree installation angle. The anchor design required a 15m fixed and a 25m freelength through the congested existing quay wall which had had previous construction and walls behind it, while avoiding existing piles and drilling through other obstructions without any disruption to the cruise ships using the terminal.

## The solution

Anchors were installed from the quay wall using a cantilevered platform attached to the quay for personnel and installation access with a crane used to lift the anchors into position. A total of 73No anchors were successfully installed using water flush rotary percussive drilling and cyclically tested to provide a working load of 494kN.

## Project facts

### Owner(s)

Port of Boston  
Environment Agency

### Keller business unit(s)

Keller UK

### Main contractor(s)

BAM Nuttall

### Solutions

### Markets

Infrastructure

### Techniques

SBMA

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