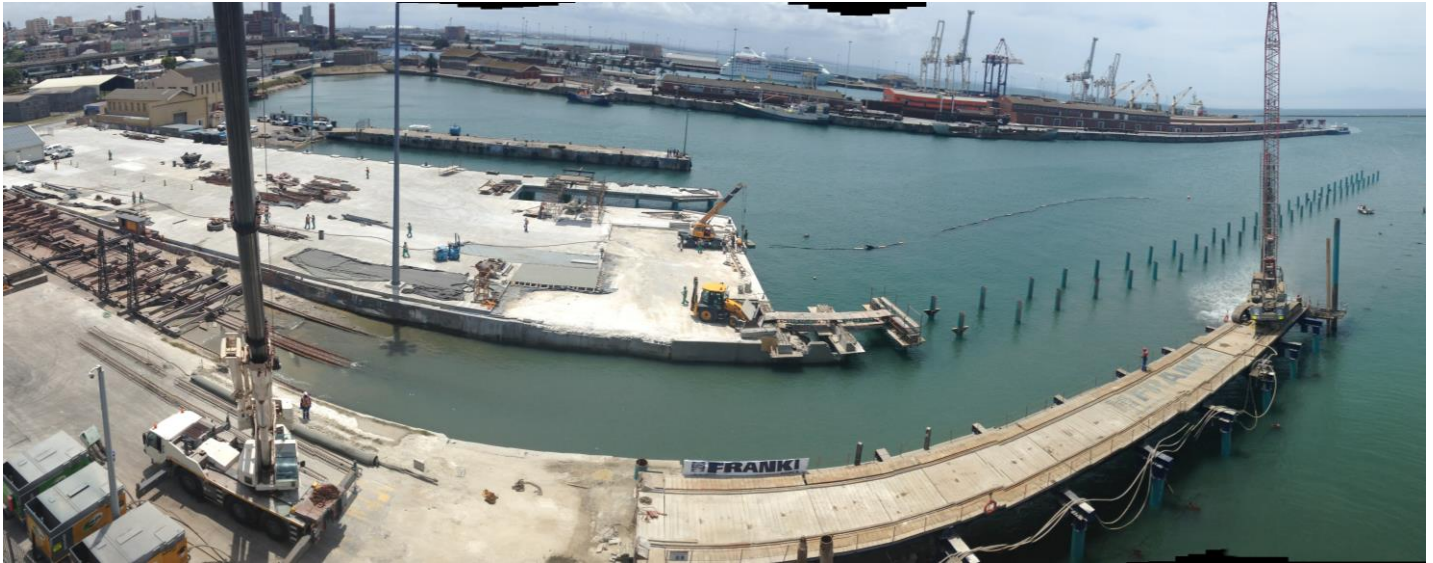




## PE JETTIES

Port Elizabeth, Eastern Cape, South Africa



### Project Facts

#### Product

Odex Piles

#### Market

Marine Works

#### Owner

Transnet National Ports Authority

#### Client

Haw & Inglis

#### Achievements

Even though Franki was faced with various challenges, it was still able to successfully complete the project ahead of schedule.

- **About the project**

Franki's Cape branch was appointed, on an alternative design, as sub-contractor to Haw & Inglis on the PE Lead-in Jetties Contract, which comprised two components:

- A 40-ton slip converted into a 90-ton boat hoist jetty, consisting of two sets of connecting jetties of 16 bays each.
- Two lead-in jetties for the 1 200-ton slipway, consisting of the Northern Jetty (with 30 bays) and the Southern Jetty (with 39 bays).

Franki was responsible for the entire pile installation operation while Haw & Inglis undertook the concrete deck structure in accordance with Franki's design.

- **Challenges**

The cross-bracing between the piles from the original jetty constructed at the end of the 1800s obstructing the position of the piles that had to be installed. Franki was also concerned with the effects of vibrating through the 4.0m seabed, drilling a 1.5m rock socket and having a crane walking out onto the jetty before the concrete had gained sufficient strength.

- **The Solution**

Installation of 202 no. 610mm Ø piles using the Rotapile or ODEX method, as this would be the least risky and would allow quicker access. A GI investigation resulted in totally unexpected results. The seabed was found to be 3.5m to 6.0m thick, with a boulder layer of 12m to 18m thick before bedrock was encountered. With the soils information available, Franki installed the first row of piles 19m deep with a 1.5m socket, just below the high-tide mark, and a 12m test pile with a 6m socket into the boulder layer. Following results of the test pile, Franki proceeded with the pile installation, now only required to be 9m deep below the seabed, with a minimum 3m socket into the boulder layer.

