



Northern Piling Ltd

# M Shed, Forth Ports

## Grangemouth

Commercial Development

Case Study

### Project Overview

Client: Luddon  
 Engineer: Ramage Young  
 Value: £250k  
 Description of works: Design, supply & install precast concrete piles to form foundations.



### TECHNICAL DETAILS

Pile Type: Precast Concrete  
 Pile Length: 24m - 29m  
 Pile Testing: 12no. Dynamic Tests  
 No. of piles: 290no.  
 Pile Size: 250mm sq  
 Working Load: 120 - 270kN Compressive  
 + 40kN Shear

NPL were contracted to design, supply and install 290No precast concrete piles for a new Transit Facility at Forth Ports, Grangemouth. The piles had to be designed to sustain compressive loads of between 120 and 270kN, as well as a shear load of 40kN throughout all piles in the project.

Despite the relatively low loads, a 250mm sq. precast concrete pile was required due to the depth of the underlying soil strata, as these piles are more robust and less likely to break during installation into deep ground.

The pile design was based on the similar work done for the same client in the immediate vicinity, which meant we were able to refer back to existing records in order to streamline the design process.

The project took a total 2 weeks to complete, 2 weeks ahead of program.. All 12no. dynamic tests were carried out during this time.

