
PROJECT: WEST QUAY IMPROVEMENTS PHASES 1 AND 2

VALUE: **£3M**
ROLE: **MAIN CONTRACTOR**
START DATE: **JANUARY 2010**
COMPLETION: **SEPTEMBER 2010**

CLIENT: **A&P TYNE LTD**
WAGONWAY ROAD
HEBBURN
NE31 1SP

- 3,700m of tubular piles
- 2,500m³ of in situ concrete
- 1000m³ of earthworks
- 350t of reinforcement
- 950m³ of precast concrete
- 262no precast units constructed on site

Construction of a new heavy-duty quay 100m long, incorporating a piled concrete deck with an area 2200m² of which 1500m² is suspended and a ground bearing slab at the rear of 2760m². Extensive use was made of precast units, cast on site, with an in situ concrete topping to form the suspended deck.

The quay has been designed for a uniform load of 10t/m² and also heavy mobile cranes. The modern berth enables the port to load out ships units either with self-propelled trailers or with heavy lift cranes. The quay is complete with fenders, bollards, ladders and services.

The 106 no. steel tubular piles 916mm dia and length of 35m were driven into the underlying rock. In order to provide horizontal stability several piles were driven at a rake of 1 in 3.



916mm dia steel tubular piles driven into the underlying rock



Construction of the ground bearing slab

CHALLENGES

Strict environmental conditions were imposed by the Environment Agency and full compliance with these were achieved.

PROGRAMME

A challenging programme was set by the client to achieve completion by September 2010. The works were complete on programme and to budget.

The first use of the quay will be the load out of units totalling 5000t that form sections of the new aircraft carrier.