
**DUNDEE V&A MUSEUM
SCOTLAND**



The V&A Museum of Dundee will be an international centre for design, housed in a world-class building created by Japanese architect Kengo Kuma at the heart of Dundee’s revitalised waterfront. It will host major exhibitions, celebrate design heritage, inspire and promote contemporary talent, and encourage future design innovation.

V&A Dundee is being delivered by Design Dundee Ltd, a partnership between the Victoria and Albert Museum – the world’s greatest museum of art and design – Dundee City Council, the University of Dundee, Abertay University and Scottish Enterprise.

Key funders of the project to develop V&A Dundee include the Scottish Government, the Heritage Lottery Fund and Creative Scotland.

The piles installed form a permanent site extension out into the River Tay, such that its visitors will then be able to view the RRS Discovery which is positioned on the adjacent site. This 3 masted wooden ship was used for the 1901 expedition to the South Pole.

To allow the installation of the piles the designated area was first sheet piled by the Main Contractor. Following this the site was backfilled to provide a working platform for the piling rig.

CLIENT

Dundee City Council

CONSULTING ENGINEERS

Arup Scotland

MAIN CONTRACTOR

Bam Nuttall

ROLE

P J Edwards & Co (UK) Ltd acted as Piling Contractor

SPECIFICATION

Specification for Piling & Embedded Retaining Walls 2007

EQUIPMENT

Mait 260 Heavy Duty Piling Rig

CONTRACT PERIOD

July - Aug 2015

CONTRACT VALUE

£408k

CASE STUDY

The piles were installed to form a permanent contiguous retaining wall just inside the line of the sheet piling.

A total of 52 no piles were installed using rotary techniques. 880mm diameter segmental casings were installed to suit the varying depths to the founding bedrock. Drilling was carried in medium strong Andesite, Breccia & Mudstones of the Ochil Volcanic Formation to depths of up to 14.7m below piling platform level.

Several piles were constructed with Inclinator tubes to allow monitoring of the pile head movements during subsequent excavation of the site. The readings obtained showed minimal deflection of the pile heads and therefore validated the design of the piles which had been carried out by ourselves.

Some of the piles were also constructed with Sonic Coring tubes to allow cross-hole integrity testing to take place down the concreted pile shafts.



Piling adjacent to the RRS Discovery



The excellent line of the wall demonstrated our ability to drill accurately in strong materials.



Artist's impressions of the finished structure