CASE STUDY

# USHER INSTITUTE, EDINBURGH


# PILING

## CLIENT

**Edinburgh University**

## MAIN CONTRACTOR

**McLaughlin & Harvey**

## SCOPE OF WORKS

**Driven Tubular Steel Piles**

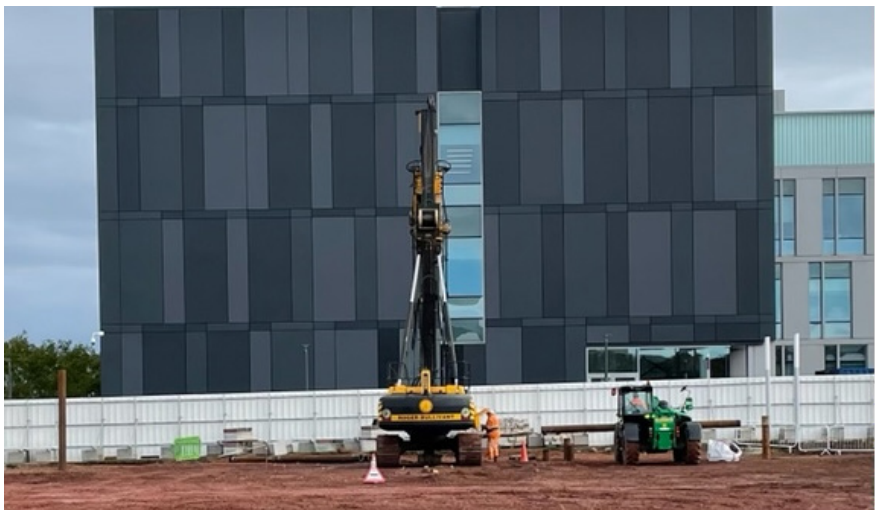
## ACHIEVEMENTS

**Completed on time**
**Completed on budget**

## Project Brief

A truly visionary Institute within the Edinburgh Medical School at the University of Edinburgh, the Usher Institute site is located within Edinburgh BioQuarter. The state-of-the-art new building will be a world-leading innovation hub where the public, private, and third sectors collaborate on data-driven advances in the delivery of health and social care.

Roger Bullivant Limited (RBL) was appointed to install 244mm dia Driven Tubular Steel Piles.



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# PILING

## Key Issues/Requirements

- RBL was required to provide a design methodology to suit the underlying ground conditions using both information provided by the Client, along with our local knowledge and extensive experience working in the area. The ground conditions comprised an upper covering of made ground, overlying clay, underlain by mudstone bedrock.
- Maximum SLS loads of up to 900kN

## Solution

- Early engagement with our client McLaughlin & Harvey and Consultant Engineer, Woolgar Hunter.
- In accordance with an EC design approach, verification of SLS was delivered in advance of the main works by undertaking 2 No preliminary load tests.
- 4 No proof load tests were successfully completed during main piling operations.
- All piling and pile testing operations and subsequent pile testing were completed within the 5 week agreed programme for the works.

## Environmental

- Environmentally friendly; repurposing redundant drill casings from the North Sea Oil and Gas Industry.
- The adjacent building within the BioQuarter was the Centre for Regenerative Medicine. To ensure noise and vibrations were kept to a minimum RBL utilised their 5000 series Quiet Hammer piling rig and set up vibration monitoring.
- Utilised HVO fuel for piling rig and all associated plant on site.

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