UNIVERSITY OF LEEDS

CANDIDATE BRIEF

Construction Technician (Brickwork Specialist),

Faculty of Engineering & Physical Sciences

Salary: Grade 6 (£27,025 – £32,236 p.a.)

Reference: EPSCV1000

Closing Date: 29 September 2019

Interview Date: Tuesday 22 October 2019

Fixed term for 3 years

We will consider flexible working arrangements

Construction Technician (Brickwork Specialist)
School of Civil Engineering

Do you have extensive experience of brickwork construction and bricklaying skills with a capability to construct very high quality multi-ring square and skew span brick arches and brick bridges? Do you also have experience of general civil engineering construction (concrete placing and pouring, steel reinforcement fixing, formwork construction, placing and compaction of stone and clay fill) gained either in industry or academia?

We are looking for a professional and proactive individual with extensive experience of brickwork construction and some experience of general civil engineering construction to join our brickwork arch bridge research team.

The team will be carrying out a series of cyclic load tests on six complete brick arch bridges constructed on the strong floor of the large-scale testing laboratory at the University of Leeds. Each test will simulate a heavy vehicle (such as a railway locomotive) crossing the bridge. Each bridge will have a span of 3m, will be 3m wide and will have an overall length (including wingwalls and spandrels) of up to 8m. Some of the arches will be skewed, others will be square spans; one of the bridges will have internal spandrels. Each arch will be backfilled with either compacted crushed limestone or clay fill. Further tests will be carried out on a number of other smaller brickwork specimens including smaller arches and walls. Some of these specimens will also be tested under cyclic loading. The cyclic loading will be applied to the bridges through a structural steelwork reaction frame which will be set up over each bridge and will be anchored to the strong floor of the laboratory. The limestone and clay backfill materials will initially be delivered to and stored in concrete blockwork storage bins located outside the laboratory.

What does the role entail?

As a Construction Technician for this specific project, your main duties will include:

- Construction of the six clay brick arch bridges, the smaller test brickwork specimens and the fill storage structures (blockwork);
- Construct the removable and re-usable timber centering for the arches and also assist with the construction of the reinforced concrete test rig slab and end retaining walls;


- Installation and compaction of the backfill around the arch barrel, spandrels and wingwalls and upon completion of each test removal and storage of the backfill material;
- Installation of the testing/loading frame and to participate in setting up each bridge for testing including rendering help to others (technicians and the research assistant) for installation of the test monitoring equipment and instrumentation;
- Contributing to the day-to-day management of the arch bridge test area, ensuring it is maintained in a safe and tidy condition;
- Making recommendations to budget holders regarding material supplies' purchasing decisions;
- Working very proactively with the research team (academic staff, research staff and supervising technicians) to determine their requirements;
- Playing a proactive role in the Civil Engineering technicians' network, for example to share best practice and to assist with the training of less experienced staff;
- Assisting in other Civil Engineering Materials and Structures Laboratory work as required.

These duties provide a framework for the role and should not be regarded as a definitive list. Other reasonable duties may be required consistent with the grade of the post.

What will you bring to the role?

As a Construction Technician, you will have:

- A brickwork apprenticeship qualification;
- Extensive experience gained in either academia or industry, in brickwork construction and in the field of handling and compacting soil or earth; concreting; steel reinforcement fixing, timber centering and formwork construction;
- Experience in the use of equipment for testing construction materials;
- Experience of the interpretation of technical drawings of structures, reinforcement details and formwork;
- The proven ability to work effectively as part of a wider technical team;
- Developed organisational skills with the proven ability to prioritise work and deliver the project against demanding deadlines;

- Excellent interpersonal and communication skills, with the proven ability to liaise effectively with academic and research staff and students at all levels;
- Ability to perform manual handling duties, which include moving bulky bagged materials, loose fill materials, bricks, steel reinforcing bars, concrete blocks and structural steelwork items using safe manual handling practices, on a regular basis;
- Evidence of a proactive approach to career-specific personal development;
- Willingness to learn new techniques and the ability to work in a changing environment.

You may also have:

- Good IT skills, including MS Office, in particular Excel spreadsheets, and the proven ability to learn new IT systems, software and hardware;
- Experience of constructing steel reinforcing cages, including cutting and bending rebars;
- Qualification or equivalent experience in preparation of formwork;
- Knowledge of instrumentation related to the testing of structures, including data logging and storing of results for later analysis;
- Experience of developing experimental methods, standard operating procedures, risk and COSHH assessments;
- Experience in operating forklift and other lifting aids;
- A health and safety qualification.

How to apply

You can apply for this role online; more guidance can be found on our How to Apply information page. Applications should be submitted by **23.59** (UK time) on the advertised closing date.

Contact information

To explore the post further or for any queries you may have, please contact:

Peter Thompson, Technical Officer
Tel: +44 (0) 113 343 2471
Email: P.R.Thompson@leeds.ac.uk

Additional information

Faculty and School Information

Further information is available on the research and teaching activities of the School of Civil Engineering.

A diverse workforce

The Schools in the Faculty of Engineering & Physical Sciences are proud to have been awarded the Athena SWAN Bronze or Silver Award from the Equality Challenge Unit, the national body that promotes equality in the higher education sector. Our equality and inclusion webpage provides more information.

Working at Leeds

Find out more about the benefits of working at the University and what it is like to live and work in the Leeds area on our Working at Leeds information page.

Candidates with disabilities

Information for candidates with disabilities, impairments or health conditions, including requesting alternative formats, can be found on our Accessibility information page or by getting in touch with us at disclosure@leeds.ac.uk.

Criminal record information

Rehabilitation of Offenders Act 1974

A criminal record check is not required for this position. However, all applicants will be required to declare if they have any 'unspent' criminal offences, including those pending.

Any offer of appointment will be in accordance with our Criminal Records policy. You can find out more about required checks and declarations in our Criminal Records information page.