University of Edinburgh Job Description

1. Job Details

Job title: Mechanical Design Engineer C/E&B/026
School/Support Department: Estates & Buildings Department
Unit (if applicable): Works Division
Line manager: Senior Mechanical Engineer

2. Job Purpose

Provide in-house electrical engineering consultancy services covering a wide range of small capital and major maintenance projects. Liaising with the Premises Managers and the design section to provide technical and cost planning advice covering a wide range of construction services.

3. Main Responsibilities

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<th>Approx. % of time</th>
<th>1. Production of feasibility reports and cost planning advice</th>
<th>5%</th>
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<td>2. Surveys of existing mechanical installations</td>
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<td>3. Production of working drawings and descriptions of works/tender documents</td>
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<td>4. Preparation and submission of drawings/documentation for all necessary statutory approvals</td>
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<td>5. Financial control and project supervision of project mechanical works</td>
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<td>6. Act as design team leader on major replacement projects including on-site project management of externally contracted projects.</td>
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<td>7. Liaise with premises team, building users, in-house design section and external consultants as required.</td>
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<td>8. Collation of contract information</td>
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<td>9. Discharge the responsibilities of client and designer under the CDM regulations.</td>
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4. Planning and Organising

Direction of Work
Project work is normally allocated by the Senior Mechanical Design Engineer.

Planning of Work
The mechanical design engineer is expected to work autonomously within the budget and time constraints of each project. Any significant variations in cost/programme or technical issues will be discussed with the Senior Mechanical Design Engineer.

5. Problem Solving

With limited decant space a major problem is arranging access to carry out planned work. Detailed discussions with departmental staff and careful planning is required to ensure that works can proceed with the minimum of disruption to building users.

Interpret brief to meet users requirements and provide acceptable design solution including meeting Local Authority requirements and codes of practice.

6. Decision Making

On receipt of client brief and/or architectural design concept a degree of flexibility is allowed within the confines of the standard university engineering specification. Any designs out-with this would have to be referred to the senior mechanical design engineer.
7. Key Contacts/Relationships

- All Estates and Building staff
- A wide range of Support Group staff
- A wide range of College/School, Academic and Administrative staff
- Accommodation services
- Professional consultants
- Contractors
- Service organisations

Due to the nature of work undertaken, which can often be disruptive to the core business of the University, communication with a wide range of personnel is required. Much of the contact with external bodies is initially by telephone with the details further discussed at meetings arranged by the Electrical Design Engineer. The liaison with University staff is usually face-to-face e.g. with premises teams and departmental representatives to organise the work to minimise disruption. Depending on the particular department and external company this discussion can take place with directors, heads of departments or their delegated representative.

8. Knowledge, Skills and Experience Needed for the Job

- Extensive experience of building services engineering (10 years minimum) with minimum HND qualification or equivalent (degree preferred)
- Good verbal and written skills
- High level numeracy skills and must be computer literate. A sound knowledge of standard spreadsheet packages and computerised estates and project management systems would be beneficial. Auto-cad or similar CAD experience essential.
- Self-motivating, able to work on own initiative and liaise effectively with managers and other staff operating in a multi-disciplinary environment.
- A sound knowledge of building contract administration is required.
- A thorough working knowledge of the C.I.B.S.E. codes and building regulations is required.
- A working knowledge of the Health and Safety at Work and the CDM Regulations is required.
- A current clean driving licence is preferable.
- Ability to work in a team environment with a minimum of supervision.

9. Dimensions

The Mechanical Design Engineer will normally be responsible for monitoring an annual project budget of between £250K and £500K with projects ranging in size from £5K to £300K.
Act as project leader for major replacement projects as required.
Customers include a wide range of staff and students involved in teaching, research and support functions and critical project deadlines are common.

10. Job Context and any other relevant information

Provide mechanical design consultancy across the University, in an estate comprising of 200 buildings amounting to 550,000 sq m in the core estate split into four zones, Meds and Vets, Science and Engineering, Central Area and Accommodation Services