



JOB DESCRIPTION

Job Details	
Job Title:	Structural Technician
Reports To:	Geoff Morrow
Appointment Period:	Permanent
Contract Type	Full Time (maybe part time for the right candidate)
Salary	Competitive - dependent on experience
Current Location:	8a Peacock Yard, Iliffe Street, London SE17 3LH

Job Purpose – not an exhaustive list

The key purpose of his role is to produce accurate and presentable structural engineering drawings and details appropriate to the stage and type of project, under the supervision of structural engineers. Some office administration, software update management and IT liaison will also be required, to help maintain the office and company I.T. systems.

Main Duties and Responsibilities – not an exhaustive list

Technician duties

- Work with engineers and other technicians to produce efficient, practical, innovative and coordinated structural designs.
- CAD refers to all electronic drawings, including but not limited to Revit Building Information Modelling (BIM), AutoCAD 2D and 3D, Rhino and Sketchup.
- Produce and maintain CAD drawings for all structural materials, including reinforced concrete detailing and bar scheduling, to a high standard following all agreed procedures and standards.
- Undertake multi-discipline design & coordination activities with other members of the project team.
- Work with the engineers to identify and foresee and avoid practical challenges within a proposed design.
- Develop solutions to problems to resolve design and detailing challenges.
- Ensure that all drawing mark-ups given to you by the engineer are carefully and thoroughly executed in the CAD drawings, and double checked by you, ensuring none are missed and you have interpreted their instructions correctly.
- When asked to amend something on CAD, think about what you are doing thoroughly and ensure that all drawings that feature that element are also updated - plans over/under, sections and details etc.
- If you have thoughts, ideas or concerns about a technical detail, or any aspect of a project in which you are involved, discuss the issue with the responsible engineer.
- If you are ever unsure about what was intended by a drawing, mark-up, or any other instructions, ask for clarification from the relevant responsible person. If you are still unsure, or concerned there may be a problem, raise the matter with a more senior engineer or a Director.
- When preparing a set of CAD drawings, perhaps at the beginning of a project, based on the architect or other designer's CAD drawings, ensure the drawings are cleaned as follows:
 - Remove all duplicate lines.



- Place all lines in appropriate layers for easy manipulation.
 - Move all irrelevant detail onto an architectural layer which will be turned off.
 - Set out drawings in model space and paper space following the agreed structure.
 - Manipulate all drawings so they match our CAD standards and procedures.
 - Ensure 'demolition' and 'walls under' are clearly and correctly annotated, on the correct layers, so it will not be missed by the responsible engineer.
- Prepare any letters and other correspondence as requested by the responsible engineer and ensure they are approved prior to issue.
 - Work to improve the efficiency of our CAD and design procedures, taking extra time when appropriate to set-up and improved systems, templates and standard detail sheets, so that work in future is more efficient.
 - Help develop, agree and maintain a logical, consistent and helpful layer structure in all CAD drawings.
 - Ensure all lines are on the appropriate layer, which is clearly named according to the agreed system, so that future amendments can be carried out more easily by you or others, and the engineers can more easily manipulate the drawings.
 - Follow all instructions given by the responsible engineer to assist them in developing their design.
 - Keep track of the tasks you need to carry out using Trello, collaborating with others and following all agreed procedures.
 - Maintain a high standard of presentation in all documents produced.
 - Actively participate in developing and improving CAD standards and working practices.
 - Produce accurate high quality physical scaled models, when requested by the engineer.
 - Arrange and coordinate the necessary paper and PDF printing, collation and issue of drawing packages as appropriate, and issue them to all relevant members of the design team, following each project's agreed procedures and the responsible engineer's instructions.
 - Follow all document issue procedures, ensuring that revision clouds are placed around all amendments, revision/title boxes are updated, document issue sheets are completed, and all documents are saved and stored in the appropriate locations (both paper and electronic).
 - Instigate, organise and maintain archiving of completed projects, following agreed procedures – proactively suggesting lists to the relevant engineers and execute the archiving once agreed.
 - Actively develop technical knowledge to accelerate personal development through work experiences within the practice and through independent learning.
 - Maintain a high level of communication with all StructureMode colleagues, and relevant members of the design team, to ensure they are aware of our progress and realistic dates of issue.
 - Work as required to complete work in advance of project deadlines and programmes, as set by the engineer and as agreed with design team.
 - Manage your time to help the team meet each month's invoicing target as agreed with a Director.
 - Ensure a written appointment has been received from the client prior to significant work being undertaken or issued.



- Maintain a good working relationship with all clients, architects and other members of the design team to secure repeat work.
- To deputise for more senior employees in their absence.
- Inform a Director of any shortcomings or procedural improvements you believe could be made.

Information Technology & CAD systems

- Help our external I.T. support company and the Director to manage computer software, network and general office I.T. systems.

Marketing

- Assist with editing and updating of the Company InDesign brochures, PowerPoint presentations and WordPress website - under direction by a Director and responsible engineers.

General Office

- Use Excel to prepare and issue sales invoices on each project at the end of each month, as directed by the project engineers.
- Manage Petty Cash tin - enter transactions into Excel spreadsheet, email receipts to bookkeeper and inform a Director when cash top-ups are required.
- Manage staff expenses - reimburse from Petty Cash tin and enter the transactions into Excel spreadsheet.
- Scan and email all sales and expenses invoices to the bookkeeper.
- Update and maintain the Print Audit database, adding new projects and archiving completed ones, so all printing can be tracked for expenses calculation purposes.
- Ensure that all project printing and travel expenses are charged to the relevant jobs and added to monthly invoices, along with all other expenses and disbursements.
- Liaise with and organise the office cleaner, including arranging payment and cover during absence.
- Follow Director's instructions to help with general administration, filing and office organisation etc.
- Maintain stock levels of consumables in the office and order new supplies as required.
- Help with answering the phone and take detailed messages – emailing them if required.
- Record all paper post received each day into the post book.
- Follow all office procedures and systems as instructed by a Director.
- Help maintain a healthy, tidy and pleasant office environment for everyone in the office.

Communication

- Always communicate clearly and sensitively with everyone, to help engender a supportive and helpful working environment.
- Keep on top of your emails and file them in the appropriate locations using Outlook and Mail Manager software – saving drawings/attachments separately into the project's 'Incoming Documents' folder.
- Work across traditional boundaries as part of a fully integrated multidisciplinary team.
- Attend occasional design team and site meetings, as required by and in support of the responsible engineer, keeping detailed and accurate notes in the project folder.



Training

- Actively develop existing skills as well as new skills and knowledge as part of your continuing professional development, through both work-based project experience, in-office training (including online training) and through self-motivated independent learning.
- Help train and guide other technicians in all aspects of the role for which they are responsible.



Requirements		Essential/ Desirable	Assess:
Qualifications	NVQ or higher qualification in Civil or Structural Engineering that meets the Institution of Structural Engineers' or Institution of Civil Engineers' educational requirements for Engineering Technician (Eng Tech) status.	E	A
	Qualifications in AutoCAD and Revit	E	A
	Technician membership of ICE or IStructE	D	A
Knowledge, Skills and Experience	Work with engineers and others to produce efficient, practical, innovative and coordinated structural designs.	E	A
	Intuitive approach to design and problem solving.	E	A/I/OM
	2 years relevant experience working within a similar UK practice producing 2D and 3D AutoCAD drawings	E	A
	2 years relevant experience of producing accurate 3D virtual structural models using Revit Structure	E	A
	Experience producing RC detailing and scheduling	D	A/OM
	Competent in using Rhino, Grasshopper and Sketchup	D	A
	Experience of thoroughly executing mark ups, coordination and necessary liaison as required by the engineers.	E	A/I/OM
	Experience of multi-discipline design & coordination activities with other members of the project team, using the 3D model and 2D drawings.	E	A/I/OM
	Ability to understand and foresee practical challenges within a proposed design and propose solutions.	D	A/I/OM
	Attention to detail and thoroughness in producing simple, clear and accurate drawings, that are appropriate for the type of project and avoid delays and problems whilst on site.	E	A/I/OM
	Strong written and verbal English communication skills	E	A/I/OM
	Strong analytical skills – able to interpret and understand design requirements and analyse complex structures	E	A/I/OM
	Co-operation and flexibility suited to working as part of an effective team.	E	A/I
	Communicate professionally, clearly and helpfully when presenting ideas, opinions and solutions to engineers.	E	A/I/OM
	Monitor compliance with AutoCAD and Revit frameworks as agreed on each project.	E	A/I
Must be able to demonstrate relevant up to date CPD records	D	A/I	
Personal Qualities and social skills	Contribute to ensuring good working relationships within the team.	E	A/I
	Self motivated with the ability to enthuse and motivate others.	E	A/I
	Demonstrate ability and commitment to customer care	E	A/I
	Adaptable to the various demands of the post	E	A/I
	Must be committed to diversity and equality of opportunity	E	A/I

Essential/Desirable

E – Essential – requirements without which the job could not be done

D– Desirable – requirements that would enable the candidate to perform the job well.

How Assessed:

A – Application

I – Interview

OM – Other Means (presentation/test etc)

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