**matthewstructures@gmail.com**

Application to Structural Design Engineer



**Qualifications**

The University of Liverpool: Civil and Structural Engineering MEng (1st Hons) – 2012; ICE Student Prize

Chartered Member of the Institution of Structural Engineers CEng MIStructE - 2019

 **Work Experience**

**Sweco UK** July 2016 – Present (Engineer) Seeking move to continue to work in Buildings.

**Ramboll UK** Jan 2013 – June 2016 (Structural Design Engineer) Moved to work in an established team.

**WS Atkins PLC** Aug 2012 – Jan 2013 (Graduate Engineer) Left company to work in Structures.

**United Utilities** July – Aug 2012 (Graduate Engineer) Left to work at Atkins with view to move into Structures.

**Relevant Project Experience**

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| Building Structures Experience [Ramboll] |
| Project | **Materials** | **Role** | **Responsibilities** |
| Abell and Cleland Houses,Westminster [2014] | Precast Concrete to Eurocode 2 | Graduate  | All design aspects from Stage 3 in adaption of in-situ design for pre-cast with Laing O’Rourke. |
| Todmorden High School[2016] | Steel to Eurocode 3 | Design Engineer. Main point of contact with client. | Scheme design. Production of Report detailing feasibility of a Moment or Sway Steel Frame. |
| Cambridge Biomedical Campus [2016] | Reinforced Concrete to Eurocode 2. Steel to Eurocode 3.  | Design Engineer.  | Concrete Frame Design for vibration sensitive Laboratories and Office. Steel Plant Room. |
| Wakefield District Housing High Rise Block Cores [2016] | Concrete Design to CP 114 1969 and check to Eurocode 2.  | Main Point of Contact with Client. Production of Calculations Package for Building Control.  | Analysis of Concrete cores in 9 residential tower blocks. Check structural integrity for adding voids in cores to accommodate additional lift door openings. |
| Cambridge Assessment Head Quarters [2014] | Reinforced Concrete to Eurocode 2.  | Graduate | Production of Movement and Tolerance report and design of Cores. I analysed the structure for horizontal loading and verified software output. |
| Custom House Crossrail Station [2013] | Precast Concrete to Eurocode 2 | Design Engineer | Design of Platform Level Precast concrete slabs and beams. |

*Key Software Learnt: SCIA Engineer, Tedds, Fastrak, RAMConcept, S-Frame, Excel*

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| Energy Structures Experience |
| Project | **Materials** | **Role** | **Responsibilities** |
| Public Realm in Bridlington[Gypsey Race Park and Avenue] | Glulam, Steel, and Reinforced Concrete to the Eurocodes. | Structural Engineer | Assisting the landscape architect in design of installations. I designed elements ranging from a cantilever deck, retaining walls and foundations.  |
| Biomethane Plants for Future Biogas | Concrete, Steel, Masonry and Timber. | Owner’s Civil Engineer | Inspecting sites across the UK during construction and reporting to the client. |
| Various Yorkshire Water Sites for AMP 6 investment cycle | Reinforced Concrete, Steel to the Eurocodes and British Standards.  | Structural Engineer seconded to the Joint Venture with Morgan Sindall.  | Structural inspections of existing assets for feasibility of re-use. Civils works such as tanks, Portal Frames and drainage. I use Staad Pro and Tedds for analysis.  |

*Key Software currently using: Tekla Tedds, Structural Designer, Revit and Excel*

**Relevant Key Skills**

*Undertake detailed engineering design working on a variety of commissions in the North of England*

My role at Ramboll involved completing calculation packages and being responsible for the production of drawings in line with the organisation’s Checking and Approval process. I developed my ability in detailed design whilst at Sweco into sitting the IStructE exam, for which I learnt how to design various structural systems to add to my knowledge.

*Preparing technical schedules, reports, designs and sketches at a variety of project workstages*

I use to-do lists in One Note to manage tasks, draw Gantt charts for each project and keep it up to date, and use the company finance software to monitor hours worked and budget remaining to obtain the required multiplier. My role in current projects is to produce the resource schedule and calculate my team’s fee. My strength is sketching.

*Developing relationships with clients and other professionals with the aim of identifying and securing opportunities.*

At Ramboll I was a part of a new team in Leeds where we built a working relationship with Laing O’Rourke. As part of the regional IStructE Young Members Group I have organised construction industry networking events.

*Represent Civic Engineers at meetings with the client, other professionals and suppliers.*

As a Design Engineer at Ramboll I have visited Cambridge, Manchester, sites in Leeds and Wakefield. Here I am the main point of contact with the client or contractors on site. I report back to my director and reply to the site.

*Ability to communicate in a clear and concise way with colleagues and clients.*

I am the designated buddy for the other graduate in my team and have helped new staff to learn software. I am an industrial mentor this year at both Leeds and Sheffield Universities. I have been the main point of contact for clients.

*Ensuring service and project work are carried out within agreed deadlines and within budget, developing a commercial awareness and beginning to manage financial aspects of projects.*

I am responsible for submitting fee proposals and managing change orders. My role requires me to monitor my team’s hours and allocate tasks as I am responsible for delivering drawings and calculation packages.

*Ensure that appropriate service/design decisions are met, consulting with internal and external mentors and stakeholders where appropriate.*

In a current project I am working with the Architect to produce a scheme design. I often work with Geotechnical, Environment and Services teams in my office. I am currently working closely with Morgan Sindall on Water projects.

*Produce reports, letters and general correspondence.*

My role as Owner’s Civil Engineer for the Energy from Waste developer Future Biogas has given me experience in producing inspection reports. Whilst in Gibraltar I was responsible for producing the calculations for Building Control.

*Experience using common analysis software (including or similar to CSC Fastrak, TEDDS, ROBOT, ETABS and SAFE and willingness to quickly learn to use new analysis packages as required.*

I am proficient in Tekla Fastrak, Staad and have used RAMConcept for post-tensioned design (Southmead Hospital).

*Keen interpersonal skills with the ability to propose multiple solutions to Clients and objectively summarise the benefits and shortfalls of each.*

In scheme designs, for projects I was the project manager whilst on secondment in Gibraltar, I have applied judgment in which material to specify, and adapt techniques to propose concrete in-situ or precast options.

**Institution of Structural Engineers**

**Hobbies**

House Renovation, Cycling, Spanish Language, Hockey.

Yorkshire Region Council Member – Since Jan 2019

Young Members Panel Member – Since Nov 2016