

BUILDING SERVICES ENGINEERING

Stansted Airport Satellite 1 © Pascall + Watson

Ruth Best, Graduate Engineer, talks about her experience working in building services.

"A person will spend approximately 90% of their life indoors, so making sure that buildings are healthy and pleasant places to be is crucial. We have all had the experience of being in a badly designed building – from rooms that are too hot and stuffy, to spaces that are cold and dark, being in a badly designed space affects us. It can have a detrimental effect not only on our short term concentration and comfort, but also on our long-term health and wellbeing."

"Building services is the design of the systems that go towards making sure buildings work for us. It is one of the most crucial, yet least well known, areas of building design. One of the reasons for this is that when building services are designed correctly, you will never notice they are there."

To give a brief overview, building services covers all the systems that make a building operate – from lighting and power to heating and ventilation and more. Within Cundall, building services is split into two teams: mechanical and electrical. The areas covered by mechanical building services are numerous, with the main systems requiring to be designed being heating and cooling, ventilation, water services and drainage. We work on projects from very early initial feasibility and concept design, right through to construction. The main responsibilities involve:

- Initial concept design
- Calculations, modelling and preparation of design drawings
- Writing of reports and specifications
- Site visits and surveys
- Coordination with other disciplines

The types of projects we undertake cover a range of sectors, from healthcare to residential to commercial and more. Recent projects we have worked on are One Hyde Park, Eden Court Theatre and Cinema and the Facebook Luleå Data Centre. Often we will be involved with projects in different countries, and will work with the local Cundall office to deliver these. This can present lots of opportunities for working abroad, as building services engineers are constantly in demand across the company.

The discipline we work most closely with is electrical, with sustainability also being a key team we collaborate with. However, we often have to work with our colleagues in all other disciplines depending on the project.

With such a range of duties and responsibilities, the day to day work is hugely varied. Our time is often split between office working, meetings and site visits. Because of this variety, building services engineers need to have good time management and organisational skills, in order to deliver multiple projects at a time. Communication is also key, as we are required to work closely with clients, external design team members and contractors, as well as other disciplines within the company. In terms of the technical side, a building services engineer needs to have a passion and enthusiasm for sustainability, problem solving and design.



RUTH BEST

Joined 2014

Building Services Graduate Engineer