



BUILDING SERVICES ENGINEERING

Buildings are equipped with a range of services essential to our comfort and well-being, such as lighting, heating, ventilation, electrics, clean water, and sewage. Building Services Engineering focuses on ensuring that buildings meet the needs of the people who live and work in them.

Mechanical services include escalators, lifts, heating, ventilation, and air conditioning.

Electrical services include energy supply, lighting, low voltage (LV) systems, communication lines, telephones and IT networks, fire detection and protection, as well as security and alarm systems.

Services supporting public health include plumbing for water supply and domestic hot water, as well as the drainage of wastewater (sewage) and stormwater.

PROFESSIONAL AND MANAGERIAL ROLES AND RESPONSIBILITIES

DESIGNER/ARCHITECT

- Creates new buildings and renovates or changes existing buildings.
- Produces designs that meet client requirements, regulations, legislation, and environmental requirements.
- Prepares detailed drawings for the contractor.
- Manages the post-design stages of a project on behalf of the client.
- Holds responsibility for the project from its inception to its completion.

CIVIL ENGINEER

- Designs, plans, and manages construction projects.
- Solves design and development problems.
- Produces structural solutions that comply with Building Regulations or British Standards.
- Assesses potential risks within a project.
- Constructs and maintains infrastructure projects and systems.

STRUCTURAL ENGINEER

- Focuses on the design, assessment, and inspection of structures to ensure stability and safety.
- Works primarily with architects as consultants, developing solutions to ensure buildings and bridges are strong and stable enough to withstand structural loads.

CONTRACTS/SITE MANAGER

- Acts as the senior company representative on site, responsible for coordinating all construction site activities.

- Manages site progress of the site and conducts site meetings and induction sessions for new employees.
- Organises day-to-day activities on site, including allocation of labour, plant, and materials.
- Responsible for health and safety on site and for the welfare of workers.
- Coordinates with sub-contractors to ensure the project is delivered on time.

SURVEYOR

- Surveys land, measuring existing features of both the natural and built environment.
- Sets out construction works in accordance with the drawings and specification.
- Produces build data and drawings for architects and structural engineers.
- Verifies boundary lines and prepares the site for construction to prevent legal disputes.
- Reports on the environmental impact of a development.

QUANTITY SURVEYOR

- Manages the financial management and budget control of a project.
- Calculates the expected cost of the project for the client or contractor.
- Calculates costs of labour, plant and equipment, materials, and sub-contracting.
- Makes payments to subcontractors and suppliers.
- Prepares a final account at the end of a project.
- Works with the architect to create the specification and produce tender documentation.