

Careers Education



Aspire | Challenge | Achieve



Our Job of the week this week is a... Civil Engineer



JOB OF THE WEEK—CIVIL ENGINEER



WHAT YOU DO

Your day-to-day tasks may include:

- planning with the client
- analysing surveys, testing and mapping data using computer modelling software
- creating blueprints using computer aided design (CAD)
- judging if projects are worth doing by looking at costs, time and labour
- checking risks and the effects on the environment
- preparing bids for tenders, and reporting to clients and government agencies
- managing and checking progress at each stage.

WHAT YOU WEAR



Civil Engineers will usually be based in an office or visiting construction sites and businesses, so they will wear smart office clothes but there may be a need for protective clothing when working outside.

WORKING CONDITIONS

You could work in an office, at a construction site or outdoors in all weathers.

WORKING HOURS

You work normal 9-5pm day, some jobs could include weekends and evenings.

40-42 hours a week.

ANNUAL INCOME



Starter £24,00

Experienced £80,000

ANNUAL LEAVE





EDUCATION & EXPERIENCE

You can get into this job through doing a degree, an apprenticeship or through training with a professional body

University Route

You could do a foundation degree or a degree in Civil Engineering. You would need at least 2 or 3 A level/Level 3 BTEC qualifications including Maths and Science.

Apprenticeship

Some estate agents offer an intermediate apprenticeship as a junior estate agent or an advanced apprenticeship in property services.

5 GCSEs at grades 9 to 4 (A* to C) and A levels, or equivalent qualifications, for a higher or a
degree apprenticeship

College

You can take a higher national certificate (HNC) or diploma (HND) at college, which may help you to find work as a trainee engineer. You'll do further training on the job to qualify.

SKILLS REQUIRED

- knowledge of engineering science and technology
- maths knowledge
- knowledge of building and construction
- design skills and knowledge
- excellent verbal communication skills
- knowledge of English language
- thinking and reasoning skills
- the ability to read English
- to be able to use a computer and the main software packages competently.

Labour Market Information

In the Careers section of the school website you can find the useful comparison tool the 'Labour Market Information widget'

Use the widget to compare different job roles in any employment sector or relating specifically to the 'Job of the Week'.

Civil engineers

Weekly Pay £850 Hours/Week

39h

£44,200

Hourly Pay

Workforce Change (projected)

Growth 5.9%

Replacement 40.3%

The workforce is projected to grow by 5.9% over the period to 2027, creating 5,100 jobs.

In the same period, 40.3% of the workforce is projected to retire, creating 34,700 job openings.

You might find this job in Architectural & related Civil engineering Construction Specialised construction Head offices, etc

Building and civil engineering technicians

Weekly Pay £560 Hours/Week

35h

£29,120 Hourly Pay £16

Workforce Change (projected)

Growth 1%

Replacement 43.2%

The workforce is projected to grow by 1% over the period to 2027, creating 200 jobs. In the same period, 43.2% of the workforce is projected to retire, creating 9.900 job openings.

You might find this job in Civil engineering Construction Specialised construction Architectural & related

Production managers and directors in construction

Weekly Pay £1,010 Hours/Week 42h £52,520 Hourly Pay

Workforce Change (projected)

Growth **9.1%**

Replacement 49.8%

The workforce is projected to grow by 9.1% over the period to 2027, creating 19,300 jobs. In the same period, 49.8% of the workforce is projected to retire, creating 105.800 job openings.

You might find this job in Specialised construction Construction Civil engineering Architectural & related Real estate

www.spaldingacademy.org.uk/careers-test/skillsometer-quiz-labour-market-information/

Education

Civil engineers

Civil engineers undertake research and design, direct construction and manage the operation and maintenance of civil and mining engineering structures.

Common tasks in this job:

- undertakes research and advises on soil mechanics, concrete technology, hydraulics, water and waste water treatment processes and other civil engineering matters;
- determines and specifies construction methods, materials, quality and safety standards and ensures that equipment operation and maintenance comply with design specifications;
- designs foundations and earthworks;
- designs structures such as roads, dams, bridges, railways, hydraulic systems, sewerage systems, industrial and other buildings and plans the layout of tunnels, wells and construction shafts;

Building and civil engineering technicians

Building and civil engineering technicians perform a variety of technical support functions to assist civil and building engineers.

Common tasks in this job:

- sets up apparatus and equipment and undertakes field and laboratory tests of soil and work materials:
- performs calculations and collects, records and interprets data;
- sets out construction site, supervises excavations and marks out position of building work to be undertaken;
- inspects construction materials and supervises work of contractors to ensure compliance with specifications and arranges remedial work as necessary.

Production managers and directors in construction

Production managers and directors in construction direct and co-ordinate resources for the construction and maintenance of civil and structural engineering works including houses, flats, factories, roads and runways, bridges, tunnels and railway works, harbour, dock and marine works and water supply, drainage and sewage works.

Common tasks in this job:

- liaises with other managers to plan overall production activity and construction activities, sets quality standards and estimates timescales and costs;
- receives invitations to tender, arranges for estimates and liaises with client, architect and engineers for the preparation of contracts;
- plans, directs and co-ordinates the construction and maintenance of civil and structural engineering works, including demolition, open-cast mining works and pipeline and piling;
- receives reports upon work in progress to ensure that materials and construction methods meet with specifications and statutory requirements and that there are no deviations from agreed plans.

To compare the Labour Market Information of different job roles that you might be interested in please visit the Careers section on the school website.

Click here:

www.spaldingacademy.org.uk/careers-test/skillsometer-quiz-labour-market-information/



Click on the website links to research the job role further.

https://nationalcareers.service.gov.uk/job-profiles/civil-engineer

https://www.prospects.ac.uk/careers-advice/what-can-i-do-with-my-degree/civil-engineering

https://www.ucas.com/explore/subjects/civil-engineering

https://targetjobs.co.uk/careers-advice/job-descriptions/278929-civilengineer-job-description

https://www.learnhowtobecome.org/engineering-careers/civil/