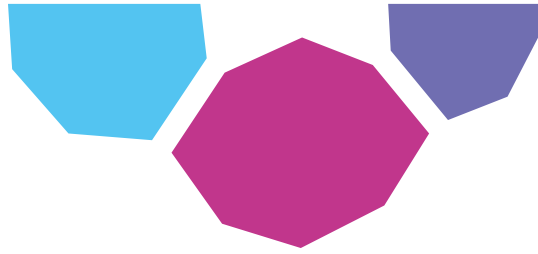




Ever thought of a Civil Engineering Career in Wales?

There are
awesome
opportunities
for everyone





Who are we?

The Civil Engineering Contractors Association (CECA) Wales represents 60 of Wales' largest and smallest civil engineering contracting businesses with a cumulative annual turnover in excess of £1bn and employing over 6,000 people.

These businesses play a huge part in supporting communities across Wales and make a significant contribution to the economic prosperity of our nation. Our members are also major providers of training and apprenticeship opportunities.

The CECA Wales Foundation Group is formed of six young Welsh professionals from civil engineering & construction companies operating across Wales and who are committed to attracting more people to work in the civil engineering sector.

What is Civil Engineering all about?

Civil Engineering isn't just about hard hats and muddy boots. It's about problem solving, teamwork, innovation, and creativity.

Whether you're working on a laptop designing future cities, managing big projects, or building with your hands, there's something in construction for everyone.

New to Civil Engineering?

Here's a simple guide to some of the terms you might hear in the industry.

Apprentice A learner who gains hands-on experience and training while earning a wage.

Civil Engineering Planning, designing and building essential infrastructure from tunnels to train lines and reservoirs to flood defences.

Client An organisation or person that needs and funds infrastructure.

Construction Building, repairing, or maintaining structures like homes, roads, bridges and more.

Contractor A company or person hired to do construction work on a project on behalf of the client.

Gang Trades are divided into gangs on site to perform their individual tasks, each gang is lead by a ganger.

Infrastructure The systems a country needs to function: transport, water, energy and communications.

Operative A site operative uses machinery and tools to lay drainage, build foundations and structures.

Plant Excavators, dumpers, cranes are all types of plant. They are heavy machinery that requires specialist training to operate.

Project Manager The person responsible for planning and delivering a construction project.

Quantity Surveyor Someone who calculates costs, measurements, and materials for construction work.

Site The place where construction work physically happens.

Sustainability Building in an eco-friendly way, reducing waste and protecting the environment.

Tradesperson A skilled worker, like a plumber, electrician, bricklayer or joiner.

Key Sectors within the industry



Roads



Rail



Comms



Water



Environment



Highways



Houses



Energy

Nailed It!

Civil Engineering Fun Facts



The average wind turbine blade can be over 80 metres long, and transporting it often requires police escorts and overnight road closures across Welsh valleys and rural roads.



The largest crane used in Wales, nicknamed "Goliath," has lifted loads weighing over 600 tonnes, equivalent to about 100 elephants!



A busy construction site can host hundreds of workers, dozens of machines, and thousands of cups of tea - all crucial to getting the job done!



Hard hats, hi-vis jackets, and steel-toe boots. (The superhero outfit of construction!)



Before we start digging we scan the ground for old roads, pipes or even buried treasure!

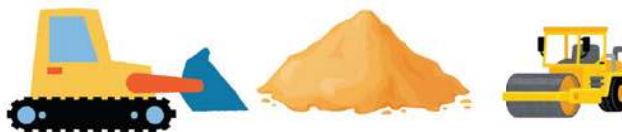


In construction, "working together" starts at the drawing board. That's where strong projects and stronger teams are built.



A standard excavator bucket can scoop up enough soil to fill a small paddling pool

The Welsh coastline isn't just beautiful, it's becoming a powerhouse for green energy, harnessing wind, wave, and tide to fuel a sustainable future.



What do we deliver? Infrastructure Case Studies in Wales

MORLAIS TIDAL ENERGY SCHEME



Key features of the project:

- A substation with nine bays, transformers, and support buildings
- Sustainable drainage systems with a pond and flow control system
- A 6.4km underground cable route with high-voltage cables and 11 joint pits
- Horizontal Directional Drilling through rock and under rivers
- Connections to the National Grid

LLYNCELYN WIND FARM



Key features of the project:

- **Access Roads:** 2.5 kilometres of new access tracks were built to reach the remote hillside site.
- **Turbine Installation:** Two Vensys V115 turbines were delivered and installed. These have hub height of 67m.
- **Heavy Deliveries:** Special planning was needed to move the huge turbine parts, including 57.5m-long blades.
- **Community Involvement:** The project included an educational outreach programme that involved over 100 local primary school pupils.

GREENER GRANGETOWN



Key features of the project:

- **Eco-Friendly Drainage:** New sustainable drainage systems were installed to collect and treat rainwater naturally.
- **Rain Gardens:** Specially designed gardens were built to soak up rainwater and add green space to the area.
- **Road Improvements:** Roads were resurfaced and rebuilt as part of the works, improving the look and safety of the streets.

AMMANFORD FLOOD RISK MANAGEMENT SCHEME



Key features of the project:

- Specialist Flood Gates
- Reinforced concrete flood walls at 9 locations
- Earth flood bunds
- Improved fish passage
- Upgrade and rehabilitation to gauging stations and stanchions.
- Landscape planting
- Installation of 2 new otter passes
- Community benefits with Coleg Sir Gar



Some great projects that our members do



More films of the great work carried out by our members



Discover the Role That Fits You Best!

These are just some of the many roles available in the construction industry within Wales. From surveying and project management to trades and design, each role plays an important part in bringing projects to life. Every role offers opportunities to build skills, work with a team, and develop a rewarding career.



Scan the QR code to take a short quiz!



Career Pathways

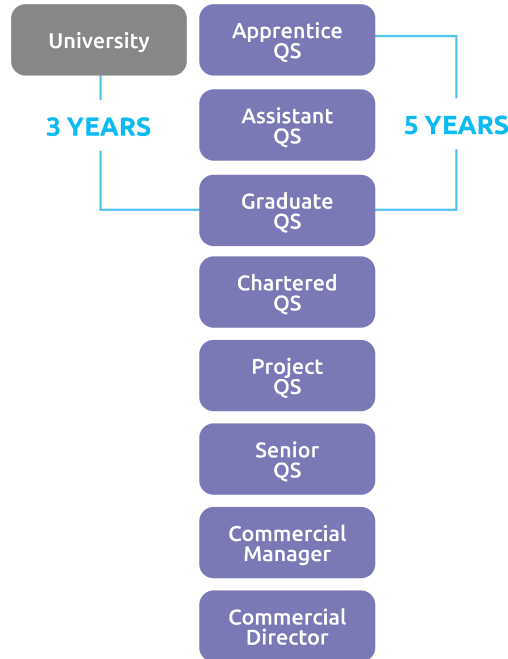
Site Engineer

- Site Engineer
- Project Engineer
- Sub Agent
- Site Manager
- Project Manager
- Contracts Manager
- Construction Director
- Operations Director

Senior Foreman

- General Operative
- Plant Operative
- Ganger
- Foreman
- Senior Foreman
- Works Manager
- Senior Works Manager

Quantity Surveyor (QS)



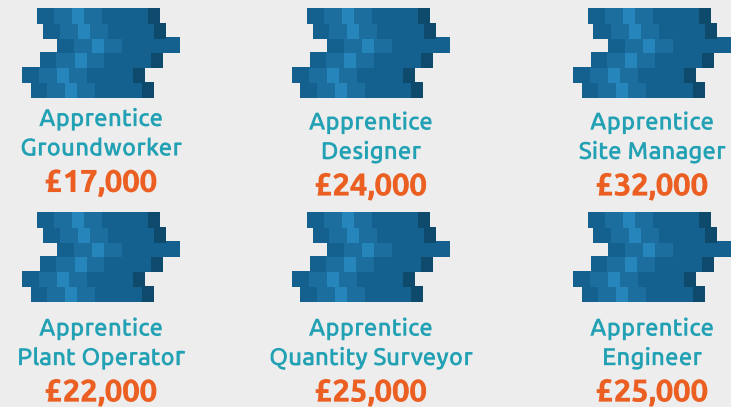
How much could you earn?

Salary figures are based on around four years' experience with a relevant degree (Glassdoor, October 2025). While city roles like Cardiff often pay more, there are plenty of great earning opportunities across Wales thanks to ongoing developments.

Average Salaries



Average Apprentice/Graduate Salaries





Site Engineer

Name Callum Maddocks
Location South Wales

As a site engineer, I am responsible for ensuring that what is built on site closely follows the design and is delivered to the highest standard. Managing the quality of the work we deliver is an incredibly important role in construction.

Before rejoining Knights Brown as a graduate, I spent a Year in Industry working on the Rock Street Flood Alleviation Scheme in Glynneath which made me want to pursue a career in construction!



Site Engineer

Name Dylan Rigby
Location South Wales

When I left school I never thought I would be involved in such a crucial role, on such significant projects, at such a young age!

Taking advantage of opportunities like careers fair's and employment events has paved the way for me to work on large and exciting projects like the brand-new waste management recycling facility for Pembrokeshire Council.



Interview with a Site Engineer

What do you do?

"I make sure that work on site is delivered safely, accurately and to a high standard of quality."

What do you like most about your role as a site engineer?

"Working in a fast-paced environment with plenty of exciting problems to solve. I also love that my role allows me to spend time outdoors which is a great benefit through the summer.

Construction sites are always full of incredibly knowledgeable people who I always get to work with and learn from which is also an amazing benefit of my role."

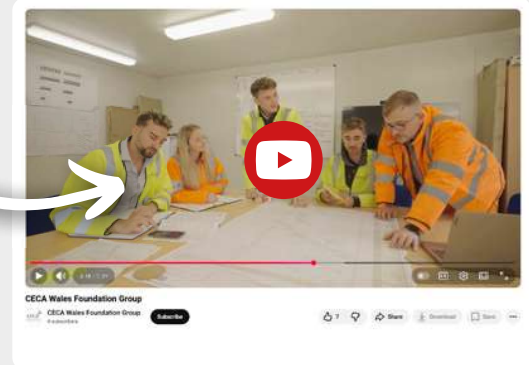
What does your career path looklike?

"My goal is to work my way into site and project management. I enjoy managing teams and working under pressure and feel this suits my skill set. It is important to understand that there is always more than one route to follow!"

What advice would you give to someone who is thinking about a career in Civil Engineering?

"Go for it! - there are so many avenues and paths that you can take in the industry and contracting in Wales offers to many opportunities."

Check out our video on youtube!





Quantity Surveyor

Name Gruff Roberts
Location South Wales



I manage the financial side of a construction project, ensuring that each scheme is delivered efficiently, cost-effectively, and most importantly, within budget!

One of the biggest advantages of working as a Quantity Surveyor is the **variety**, each day brings new situations to navigate and problems to solve. You invest a lot of time and effort into a project, and when everything finally comes together, that sense of accomplishment is really satisfying.



Can I study at University to become a Quantity Surveyor?

Name Rebeca Jones
Location North Wales

After completing my GCSEs, I went on to study A Levels in History, Geography, and Biology at sixth form. At the time, I wasn't certain about my **future career path** and felt a great deal of pressure to make a decision.

Work experience at Jones Bros allowed me to **explore** a variety of roles within the company, sparking my **interest** in the construction industry and leading me to pursue a degree in **Quantity Surveying**.



Interview with a Quantity Surveyor

Are there alternative routes to becoming a qualified Quantity Surveyor?

Name Jac Beynon
Location West Wales



When I was at school, I knew that full-time university wasn't the right path for me. I wanted a route that **combined learning, earning, and real world experience**.

That's when I discovered Quantity Surveying. It stood out as a rewarding career that blends **problem solving, teamwork, and responsibility**.

With a QS apprenticeship, you can:

- Earn a university degree while you work.
- Avoid student debt - as your employer covers the costs.
- Gain years of on-site experience, building skills you can't learn in a classroom.

Day in the life

Name Rhys Jones
Location South Wales

As an Apprentice Quantity Surveyor, I assist with managing costs and contracts on projects. Every day is different, and the image below highlights the range of tasks I get involved with.



Check emails
→ Visit site to measure work completed

→ Prepare applications to the client based on site measure

→ Review subcontractor applications
→ Attend weekly catch-up meetings

Interview with a Senior Foreman

Foreman - Manages the site, uses their specialist knowledge and experience to bridge the gap between management and the on-site team.

What do you do?

" I lead construction teams on site, managing daily briefings and task allocation. I support the Site Agent in supervising operations, ensure health and safety standards are met, monitor work quality and progress, and coordinate equipment use and maintenance.

I also liaise with different trades, mentor the team, carry out safety checks, promote a safety-first culture, help with planning and communication, and keep site records to support project delivery."

What do you like most about your role as a Senior Foreman?

" My Favourite part of the job is leading the team on site and seeing the progress we make each day. I enjoy solving problems, supporting the operatives development, and making sure everything runs safely and smoothly.

After putting in so much time and effort, seeing a project finally come together is incredibly rewarding."

What type of projects have you worked on?

" Over the past 20 years, I've been fortunate to contribute to a variety of civil engineering projects across Wales, each offering unique challenges and opportunities to make a positive impact on local communities.

Some examples of projects I've been involved in includes:

- Wind farms
- Flood defence schemes
- Active travel routes
- BESS (Battery Energy Storage Schemes)
- Construction of new roads & infrastructure
- Bridges
- Tunnels
- Demolition



My career progression to a Senior Foreman



Everyone has different aspirations, if you don't feel as if University or an Apprenticeship is the right path for you.

If you're interested in a hands on, practical working environment, as early as you finish school (most companies will require you to be 18+), this job role might suit you perfectly.

As highlighted previously, employees have strong prospects for career growth.

" I didn't have a clue what my aspirations were when I began in construction. I just started work as a crane operator because working up in the clouds really excited me. Wanting a more hands on role, I then changed to tunnelling and groundworks where I could get proper stuck in.

Once I had this on site experience, I was able to change between projects and sites as I liked. The experience and skills I gained doing a variety roles was incredibly beneficial for my senior career. I am very grateful to have had such a varied and illustrious career."

Team CECA





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Follow us on Socials

to stay updated on opportunities and events!

