CONSTRUCTION FUTURES CTF

Career Profile

Civil engineer

The core infrastructure we use every day is the result of the work of **civil engineers**.

Civil engineers plan, design, construct, operate and maintain roads, bridges, dams, water supply schemes, sewerage systems, transportation, harbours, dockyard facilities, airports, railways, factories and large buildings. They may specialise as: structural engineers, materials and testing engineers, highway engineers, airport engineers, geotechnical/soil engineers or harbour engineers.

What might a civil engineer's working day look like?

Your work will vary according to the area you specialise in but may include:
+ Investigating sites to determine the one most suitable for a proposed project
+ Researching and advising clients on the best method of engineering for a project

As a civil engineer you must be able to:

+ Produce detailed designs and documentation for the planning and construction of civil engineering projects
+ Prepare calculations required to the design of a project
+ Work with other engineers, architects and local government authorities as required
+ Test and determine the foundations of a site and decide if it is suitable for construction
+ Work with a client to provide advice on civil engineering projects
+ Use computer software to produce plans and other documentation for a project
+ Organise materials, machinery, equipment and labour for a project
+ Conduct feasibility studies
+ Plan and conduct maintenance work on civil engineering projects

To be a successful civil engineer you should:

+ Be a problem solver
+ Have excellent communication skills
+ Be careful, methodical and accurate in your approach to work
+ Be creative
+ Be able to work as part of a team
+ Enjoy working outdoors
+ Have excellent maths skills

SKILLS FROM SCHOOLS

Where are civil engineers workers employed?

With a growing population in Western Australia, there is a need for more and more civil infrastructure. There will be a need for qualified civil engineers to work on the design, planning and management of large construction projects such as airports.

Civil engineers are employed by large or boutique engineering firms, Government agencies, contractors and consultants. Consulting and contracting engineers often travel for their work – both interstate and overseas.

What can the future hold?

After completing a degree, graduates work for 3 to 4 years to gain professional experience. After passing the profession examination they can work as fully qualified civil engineers in almost any country in the world without needing any extra qualifications.

You can end up working with some of the countries largest civil construction companies or set up your own consulting firm.

Fantastic! How do I get started?

If you're at school, you can enrol in a Certificate II Civil Construction qualification as part of your WACE.

For further information about Certificate II and III **traineeships** in the civil construction sector, find your nearest Apprenticeship Network Provider at www.australianapprenticeships.gov.au or call 13 38 73. Once you complete secondary education you can enrol in an engineering degree at university.

For additional information on careers in the civil sector, contact the Civil Contractors Federation on (08) 9414 1486 or visit their website at civilcontractors.com

GOVERNMENT OF WESTERN AUSTRALIA