

## NATURE OF WORK

Civil drafters work mostly with civil engineers. They provide the drawings as well as the topographical and relief maps used in major construction or civil engineering projects. Their work is mainly focused on highways, bridges, pipelines, flood control projects, water systems and sewage systems. Most civil drafters use computer-aided design (CAD) and other drafting systems to prepare their drawings. The speed in which a drafter can prepare multiple variations of a design has greatly increased due to the use of computer systems. Drawings are stored electronically and revisions and duplications can be easily accomplished.

## WORKING CONDITIONS

A 40-hour work week is normal for a civil drafter. Civil drafters usually work in comfortable offices furnished to accommodate their tasks. Computer terminals are used most often by drafters but, there are times when they may sit at adjustable drawing boards or drafting tables to do manual drawings. Due to the number of hours drafters spend sitting in front of a computer, they need to be aware of the physical strain placed on their bodies and make efforts of counteract them.

## TRAINING & QUALIFICATIONS

Employers want civil drafters who have formal training from a two- or four-year college. They feel that the best employees are those who are well rounded in mathematics, science, and engineering technology; in addition to being highly skilled in CAD and have the ability to do pencil and paper drafting. Since drafters need to work with many people as they develop detailed drawings it is important to have good communication skills, be a team player and have the ability to problem-solve. Many employers are willing to pay for continuing education to keep their drafters up to date in the latest computer advances.

## JOB OUTLOOK

Drafters are starting to do work that used to be performed only by engineers, thus the demand for drafters with this ability is increasing. With better CAD systems and foreign competition the demand for lesser-skilled drafters is on the decline. The majority of job openings are expected to arise from the need to replace drafters who are transferring to other occupations, leaving the labor market, or retiring.

## CAREER OPTIONS

Civil drafter, Civil CAD operator

## ESTIMATED SALARY RANGE

New Mexico— \$34,940—\$56,100

Nationally — \$40,340—\$60,880

(depending on skill, experience and responsibility)

## RELATED OCCUPATIONS

Aeronautical drafter, architectural drafter, mechanical drafter, electrical drafter, electronic drafter

## SJC Basic Program Information

The Civil Drafting and Design program provides students with a firm technical foundation in drafting and the option to gain skills in civil, map, and topographical drafting. Related technical courses provide the background, concepts, and skills needed to succeed and advance on the job.

Students must receive a "C" or better in all drafting courses to count toward a degree.

## For further information go to:

[www.sanjuancollege.edu/pages/158.asp](http://www.sanjuancollege.edu/pages/158.asp)

Click on AAS link under Career Programs

[www.bls.gov/oco/ocos111.htm](http://www.bls.gov/oco/ocos111.htm)

<http://www.adda.org/>



\*Most of this information is from the Occupational Outlook Handbook, 2008-2009

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