Project Engineer / Construction Engineer

The terms construction engineer and project engineer normally relate to the same person or job function. Construction engineering is the application of engineering, management, and business sciences to the processes of construction, through which designers’ plans and specifications are converted into physical structures and facilities. The construction or project engineer engages in the design of temporary structures, site planning and layout, cost estimating, planning and scheduling, management, materials procurement, equipment selection, cost control, and quality management. These processes involve the organization, administration, and coordination of all the elements involved in construction labor, temporary and permanent materials, equipment, supplies and utilities, money, technology and methods, and time in order to complete construction projects on schedule, within the budget, and according to specified standards of quality and performance. Depending upon the size and complexity of a project, the construction engineer may be responsible for one to several jobs. This means that travel to many different work sites is part of this occupation. Many project engineers work on-site in temporary offices and spend a good deal of time out of doors, planning and checking work.

Education and Training

Construction engineers must have a strong fundamental knowledge of engineering and management principles, and knowledge of business procedures, economics, and human behavior. Students who wish to pursue a career as a construction or project engineer should concentrate on math and science courses, and must earn above average grades in high school. A bachelor’s degree is virtually required for this career, and students must be very careful in selecting an accredited academic engineering degree program with a major emphasis or concentration in construction. Those who do not concentrate in construction engineering at the undergraduate level may return to school for a master’s degree in engineering management or business administration.

Advancement Potential

Construction engineers typically begin their careers in a training capacity as engineers-in-training. They may begin as assistants to project superintendents, project managers, estimators, or field engineers. Advancement and responsibility are quickly earned for those who excel. It is not unusual for construction engineers to be in total charge of small projects within five years of employment. Construction/project engineers frequently become the chief operating officer of companies.

Wage Averages for Ohio (Bureau of Labor Statistics, 2013)

Hourly: $28.16
Annual: $58,589
YEARS WORKING IN THE INDUSTRY?
9.5 years as a fully time employee of Great Lakes, plus one year of co-op and 3 years as a laborer for a masonry company.

HOW DID YOU BEGIN YOUR CAREER?
During college, I got involved in the OCA Contractor For A Day and OCA Estimating Competition. I then got a co-op with The Great Lakes Construction Company and decided that I wanted to continue working in the construction industry after college graduation.

WHAT ATTRACTED YOU TO THE CONSTRUCTION INDUSTRY?
I knew I enjoyed construction from my time as a laborer for a masonry company. I enjoyed working as part of a team and seeing actual progress at the end of the day.

WHAT DO YOU ENJOY MOST ABOUT YOUR JOB?
I enjoy working with a good team of people and accomplishing a set goal. Also, at the end of the day or period of time you can look back and see something tangible that you and your team have built.

BEST ADVICE
Don’t be afraid to ask plenty of questions

BEST EXPERIENCE
The day that we blew up the old Cleveland Inner-belt Bridge as part the CCG2 George V. Voinovich Bridge Project.