

A CAREER IN CONSTRUCTION MANAGEMENT



CMAA

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BUILD OUR FUTURE AS YOU BUILD YOUR OWN

A beach house for children with special needs. A 46-project, \$1.4 billion program which included military facilities and universities for the Afghani people. A highly secure super-computing facility at an undisclosed location. A \$700 million, 6.4-kilometer subway line and station. A 12-year, \$3+ billion project to improve wastewater treatment in a historic harbor area.

These projects have been completed recently. All were finished successfully—on time, on budget, and with excellent quality and safety records—largely because their owners relied on professional Construction Managers (CM).

Airports, highways, schools, bridges, hospitals, top secret government facilities, sports arenas: these projects are being built all over the world, all the time.

As a professional Construction Manager, you can play a vital role in helping your community and your nation to meet future needs for critical infrastructure of all types.

You can lead diverse teams of professionals and see the results of your efforts in the form of structures that will stand and perform for many years or decades to come.

Construction management is one of the most exciting, challenging, and rewarding professions. It's also growing quickly, as construction projects become more complex and needs become more pressing.

According to the Bureau of Labor Statistics, the median pay for CMs is \$87,400 with a bachelor's degree.





As a Construction Manager, you'll earn good pay, enjoy highly varied and interesting work, and pursue clear paths of advancement throughout your career.

Why not start today to explore a career as a professional Construction Manager?

At its core, a capital project is made up of three parties (excluding the Construction Manager):

- The Owner, who commissions and subsequently funds the project.
- The Architect/Engineer, who designs the project.
- The General Contractor, who oversees day-to-day operations and manages specialized subcontractors.

These parties perform vastly different functions from one another, and in most cases, come from different organizations. The Construction Manager's job is to provide oversight over the entire project directly for the owner, working with the architect and general contractor to deliver the project on time, at or under budget, and to the owner's expected standard of quality. They are responsible for monitoring construction sites to ensure that government regulations and Occupational Safety and Health Administration (OSHA) laws are followed. Regardless of the delivery system used (design-build, at-risk, etc.), professional Construction Managers act as an advisor to or agent of the owner, charged with assuring projects progress smoothly and achieve the owner's business objectives. Professional Construction Managers can also manage projects for design-build firms and general contractors.

CMs are employed by public and private sector owners to include government, consulting firms, general contracting, architects/engineers, healthcare, commercial, industrial, and power industries.

Construction Managers can:

- Define and translate project needs for the project to be built.
- Develop a project budget and schedule.
- Select a project architect, other design professionals (if needed), and the contractor.
- Oversee the development of project documents that potential contractors and others will need in order to bid on the work.
- Review bids and bidder qualifications.
- Control disbursements of funds as construction progresses.
- Coordinate and supervise the work of all contractors and subcontractors to be sure the job's specifications are being followed.
- Facilitate communication among all team members.
- Respond to changing owner needs by implementing change orders to the project scope of work.
- Avoid delays, disputes, accidents and cost overruns.
- Coordinate the commissioning process, the final delivery of a completed project with every element accomplished and in alignment with project specifications.



Before construction begins, you will work with the owner, architect, engineers, general contractor, and other stakeholders to determine the best possible sequence of construction operations and develop a detailed schedule and budget. This often requires sophisticated computer software and planning techniques, as well as knowledge of all critical construction methods.

During construction, the CM often works full-time on the job site with key project participants, monitoring ongoing work, and any issues requiring immediate action. However, advances in communications technology make it possible for a CM on site to be continuously linked to his or her home office, or to stay in the office and be in touch with the job site. Many projects today use web-based collaboration tools and rely on wireless connections to transmit project documents, daily reports, change orders, photographs, emails, and other information as needed between the job site and office locations.

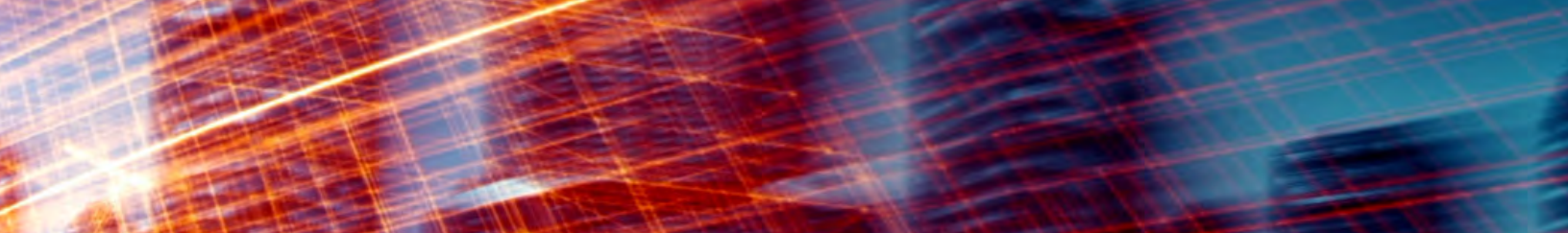
You will be responsible for reviewing all project requirements regularly and monitoring the ongoing construction to assure that those requirements are being met. A key part of your job will be to keep everyone involved in a project fully informed of requirements, resources, progress, safety concerns, and possible risks.

The CM is “on call” during construction. Some construction projects can proceed seven days a week and around-the-clock. You will spend your day dedicated to one or more projects.

Some people become professional CMs after years of gaining experience in one of the building trades. However, the job today increasingly requires specific academic preparation, as well as construction knowledge.

A well-qualified construction management professional will have strong mathematics, physical science, construction technology, engineering, business management, and leadership training on his or her college transcript. He or she will also be an adept computer user, with hands-on experience and knowledge in a variety of applications from basic spreadsheets to complete project management information systems.





To become a CM, a person must understand contracts and business practices as well as construction materials and methods. You'll need good oral and written communication skills, and you must be able to handle several things at once in a fast-paced environment. Leadership skills, which include the ability to delegate and manage conflict are all valuable traits a CM must possess as well.

Many colleges and universities across the country currently offer four-year degree programs in construction management, civil engineering, construction technology, or architecture. Graduates of these programs may be hired as assistants to project managers, field engineers, schedulers, or cost estimators. Often, they opt for a career in professional construction management after gaining substantial project experience or obtaining an advanced degree in construction management. Other undergraduate programs that could lead to a career in professional construction management include mechanical engineering, electrical engineering, and building sciences and technology.

Numerous colleges and universities offer a master's degree program in construction management or construction technology. Master's degree recipients, especially those with work experience in construction, typically become Construction Managers for government entities, consulting firms, construction companies, or private developers.

A number of two-year colleges offer construction management or construction technology programs, and many individuals also attend training and educational programs sponsored by industry associations.

Scholarships are available to help you pursue your education. The CMAA Foundation and the ACE Mentor Program, for example, offer financial support to students enrolled in four-year college and university programs. Many local and regional chapters of CMAA offer their own scholarships to students in their local areas. Information on these programs can be obtained from www.cmaanet.org.



Continuing to grow

Your early experience as a Construction Manager in training will qualify you for increasingly responsible roles. You'll have a variety of opportunities to gain new skills to help you manage more important positions.

Like many other technical professions, a qualified practitioner can achieve certification. Professional certification of Construction Managers identifies individuals with specific knowledge, abilities, and experience.

The Construction Manager Certification Institute, a subsidiary of CMAA, oversees and administers a voluntary program that bestows the Certified Construction Manager or CCM designation. To qualify, you must meet stringent requirements of actual project experience responsibility. You must also successfully complete an examination that covers a broad range of topics from program, project, risk, contract administration, quality, cost and time management, sustainability, Building Information Modeling (BIM), and safety management.

Although certification is not required to work in the construction industry, voluntary certification is valuable because it provides evidence of competence and experience. Many firms today strongly encourage their employees to obtain CCM certification, and may make this certification a requirement for promotion to upper-level positions.



Your future in construction management

Our infrastructure today is more complex than ever. It takes solid professional management to bring even a relatively modest project to successful completion.

Despite this challenge, America needs to undertake vast amounts of rebuilding and replacing current infrastructure, and new construction to meet ever-growing needs for schools, highways, rail transportation, and water/wastewater in the coming decades.

As a professional Construction Manager, you can not only be part of meeting this challenge, you can drive the process. You can work with and learn from many diverse disciplines. Your talent and energy can help realize the talents and efforts of others. You can see the results of your work, experience the before and after, and witness the benefits to society that you've helped deliver.

Construction management is an exciting, growing profession, full of challenge and opportunities to learn. Give professional construction management a long look when considering your career options...and don't hesitate to reach out to us with any questions as you progress through your educational and professional path to success.



