

CONSTRUCTION MANAGEMENT AS A CAREER CHOICE: BUILDING OUR NATION'S FUTURE

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The Washington Monument, the U.S. Capitol Dome, the World Trade Center, a 46-facility military project, a highly secure super-computing facility, a 6.4-kilometer subway line and station, a federal courthouse, and an NFL Team's Training Camp Facility. These are just some of the projects that 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 to lead their teams to project completion.

As a student, when we think about construction, we know there are multiple parties involved: the architects/engineers who design it, and the contractors who build it. But who pulls it all together, working with all teams to ensure project success? It's the Construction Manager (or Project Manager), a construction consultant skilled in leading teams, with expertise to include managing budgets, schedules, safety, risk, and quality control efforts.

Airports, highways, schools, bridges, hospitals, top secret government facilities, sports arenas: these projects are being built all over the world, all the time. And the demand for qualified professional Construction Managers is growing quickly, as construction projects become more complex and needs become more pressing.

Professional Construction Managers play a vital role in helping the community and our nation meet future needs for critical infrastructure of all types. They lead diverse teams of professionals and see the results of team 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.

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, 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 ensure compliance with specifications.
- 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.

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





PROJECT EXAMPLE:

Project: World Trade Center, New York, NY

Construction Manager/Program

Manager: STV, New York, NY

Client: Port Authority of New York and New Jersey

Photo Credit: Port Authority of New York and New Jersey

One World Trade Center includes nearly 3.6 million sf of space on 104 floors. A 408-foot broadcast antenna brings its height to a symbolic 1,776 feet, making it the tallest skyscraper in the Western Hemisphere. Its safety systems exceed code requirements and it is also the most environmentally sustainable project of its size in the world.

Construction Managers need 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 Construction Manager, 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 Construction Manager must possess as well.

Many ABET accredited 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 assistant 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 a degree in a related program. 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.

Pulling it all together

If you are fascinated with seeing how infrastructure is built, have the mindset of a leader, and want to contribute to our nation's infrastructure, professional construction management might be the career choice for you. Consider building our future as you build your own. For additional information on construction management as a career choice, visit www.cmaanet.org or www.acementor.org.



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Construction and Program
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