

**CONSTRUCTION MANAGER  
(Time-Based)**

**APPENDIX A**

O\*NET CODE 11-9021.00

This Training outline is a minimum standard Work Processes and Related Instruction. Changes in technology and regulations may result in the need for additional on-the-job or classroom training.

**WORK PROCESSES**

	<b>Approximate Hours</b>
<b>A. Construction Fundamentals</b>	<b>750</b>
1. Learn project-dependent construction processes and sequences;	
2. Read and understand blueprints and specifications, including but not limited to general building documents, shop drawings, etc.;	
3. Develop familiarity with construction software, mobile applications (tablets, apps), and Building Information Modeling (BIM).	
4. Develop Site Plans: site safety, site access, on-site access, site drainage, and water control.	
5. Attend and conduct safety meetings; know and communicate importance of personal Protective Equipment (PPE); conduct Toolbox Talks”;	
6. Learn and follow regulatory requirements regarding jobsite safety: human and environmental.	
<b>B. Estimating and Construction Documents</b>	<b>2000</b>
1. Perform basic materials takeoffs to quantify project components using conventional methods and software;	
2. Attend project site inspections to facilitate understanding site conditions and restrictions;	
3. Become familiar with all manner of construction documents, Including but not limited to:	
a. Invitation(s) to bid	
b. Requests for Proposals (RFPs)	
c. Instructions to bidders and bid forms;	

- d. general and supplementary contract conditions
  - e. technical specifications
  - f. construction drawings.
4. Utilize contract documents and specifications to interpret and determine scope(s) of work;
  5. Use determined scope of work to establish estimates of various kinds, including but not limited to: production, procurement, materials,
  6. and subcontracting possibilities;
  7. Create, organize, and maintain vendor/subcontractor lists to facilitate quotes for projects.

**C. Superintendence**

**2000**

1. Develop a thorough understanding of construction processes and sequences;
2. Assist in implementation of Site Plan: set-up, temporary utilities, security, communication, permits, signage, job posting requirements, safety protocols, and work schedule(s);
3. Assist and prepare daily logs, reports, and coordination meetings;
4. Attend and conduct daily work plan reviews, and discuss potential risks with subcontractors;
5. Conduct field inspections to ensure work performed conforms to contract documents and specifications;
6. Assist/develop Requests for Information (RFIs) to design team and issue nonconformance reports to contractors;
7. Coordinate required inspections with appropriate agencies, departments, etc.;
8. Perform job progress inspections and completion list inspections;
9. Ensure project cleanliness and organization.

**D. Project Management**

**2250**

1. Learn to analyze contract documents and specifications, with emphasis on relevance to effective project coordination;
2. Learn to create and update schedules, including but not limited to:
  - a. project activities

- b. duration of activities
  - c. sequencing of activities
  - d. construction schedule
  - e. cost controls;
3. Assist in forecasting and managing project budget(s);
  4. Assist in preparing daily, weekly, and monthly reports describing project
  5. status;
  6. Learn and employ project management software for project schedules;
  7. Practice document control, including but not limited to: submittals, transmittals, changes and change orders, by using appropriate software, such as Procore, Plangrid, and Autodesk.
  8. Become familiar with and utilize BIM to facilitate project management, especially to see real-time progress and perform clash detection;
  9. Learn to effectively communicate with architects, owners, prime contractors, subcontractors, municipalities, and labor organizations (where present);
  10. Practice conflict resolution between all pertinent parties and for all manner of conflict, e.g., labor, congestion, materials delays, and construction administration;
  11. Assist with safety management: general construction workplace safety and emergencies which may require proximity tracing and strict mitigation protocols, such as enforcing PPE use.

**Approximate Total Hours                      7000**

*Apprenticeship work processes are applicable only to training curricula for apprentices in approved programs. Apprenticeship work processes have no impact on classification determinations under Article 8 or 9 of the Labor Law. For guidance regarding classification for purposes of Article 8 or 9 of the Labor Law, please refer to <https://dol.ny.gov/public-work-and-prevailing-wage>*

# CONSTRUCTION MANAGER

## APPENDIX B

### RELATED INSTRUCTION

#### **Safety, Health, and the Workplace**

1. First Aid & CPR
2. Sexual Harassment Prevention Training – must comply with Section 201-g of the Labor Law
3. Occupational Safety & Health Administration (OSHA) 30-hour Construction Safety Course
4. OSHA 40-hour Hazardous Waste Operations and Emergency Response Standard (HAZWOPER) Training
5. New York City Department of Buildings (NYCDOB)-approved 8-hour Superintendents Site Safety Coordinator Course (and/or Refresher) (if applicable)
6. NYCDOB-approved 40-hour Site Safety Manager Course (if applicable)
7. Right-to-Know/Safety Data Sheets (SDS)
8. Fall Protection
9. Scaffold User/Suspended Scaffolding/Ladder Safety
10. Local Building Codes
11. Industry Code Standards (such as NFPA 70, National Electrical Code (NEC); International Plumbing Code (IPC)
12. Safety Culture Training (such as Incident and Injury-Free (IIF)<sup>TM</sup>)

#### **Blueprints, Specifications, Documents, Programs**

1. Plan and Specification Reading
2. Shop Drawings
3. Project Documents (e.g., submittals, transmittals, change orders, RFIs)
4. Site Safety Plans
5. Logistics Plans
6. Plans and Permits
7. Scheduling
8. Project Management Software and Computer Applications: tablet, cloud-based, BIM, document control software

## **Trade Theory and Science**

1. Project Delivery Methods
2. Construction Processes, Methods, and Materials
3. Workforce Management
4. Business Ethics
5. Conflict Resolution
6. Workplace Stress Reduction and Anger Management

A minimum of 144 hours of Related Instruction are required for each Apprentice for each year.

Appendix B topics are approved by New York State Education Department.