



Construction Technology

Over the last generation, the management of construction has taken a decidedly “white collar” turn. Construction managers now are most often college graduates with the role of job site superintendent also beginning to lean toward a higher level of education. The previous method of advancement based on years of experience in the trades is being replaced with an educational emphasis out of necessity: people entering the construction trades are not keeping pace with the number of people retiring.

Construction Logistics

The sophistication level of contractors has grown leaps and bounds over the last decade. Virtually constructing the building has made projects safer, limited rework, and aided in the coordination of the different trades. This collaboration and visualization begins at the earliest stages with a well thought-out site logistics plan.

A site logistics plan represents all requirements and activities anticipated on a construction job site.

This may include the following:

- Job site office location
- Allowable parking
- Places for material deliveries and storage
- Trash and recyclables dumpster locations
- Vehicular circulation
- Crane placement
- Site security measures (fencing, gates, etc.)
- Off-site traffic concerns and plans to mitigate
- Erosion control measures



Well planned site logistics contribute greatly to the efficiency and safety of a construction project. No longer is this a hand sketch on a site plan. The overall layout is now often represented 3D with the same computer software programs utilized by the design team.

Safety

Pay attention to different strategies for safety on the job site. Take photos of your observations and be prepared to share next week.



Site Issues

Identify what you might perceive to be difficulties relating to the property and the performance of construction on the site. Take photos of your observations and be prepared to share next week.

Trades Coordination

On-site coordination used to be “who can yell the loudest” during a meeting. Currently, active participation by all building trades is accomplished through digital coordination meetings utilizing BIM software and electronic fabrication files provided by key subcontractors. This information is compiled into a single electronic file to identify “clashes”. A clash constitutes work from multiple trades occupying the same space.

Previously, clashes were only detected after work was installed or if two foremen happened to be talking about planning the day’s work. Now, the clashes are identified months in advance and corrections are made before material ever arrives on the job site. This has led to faster installations, less rework, more prefabrication, and greater overall efficiency of labor.

After a brief review of the construction documents for the project, see if you can spot how the sequence of different construction activities are represented in reality.

