



# 5 SECRETS OF SMARTER, FASTER, & CHEAPER CONSTRUCTION IN NYC





Construction in New York City doesn't have to be a long, drawn-out process. With the proper planning and first steps at the beginning of the project, you can eliminate the top culprits that delay construction projects.

**Follow these five tips for a smooth and on-time project.**





# 1

## Team Organization and Team Communication



There are many different ways to organize design and construction teams. Directly hiring all of the consultants and contractors for a project gives the developer unparalleled control, but requires an experienced developer with a project management team. However, the opposite method, Indirect Control, delegates the majority of responsibility away from the developer. With Indirect Control, the developer only has two direct hires, the architect and the general contractor (“GC”). This method enables the developer to be less involved in the day-to-day operations of the project.

As the control is given up, the success of the project becomes more dependent on the architect and GC, rather than the developer. Design decisions have the largest impact on construction cost and time and therefore, are the most valuable and important decisions of the project. It’s advantageous to have the developer’s input and control in the design phase, and have less off their input and control in the construction phase. New York Engineers recommends a Semi-Direct Control team organization.



This means the developer hires all design consultants directly: architect, MEP engineer, civil engineer, structural engineer, expeditor, interior designer, and the GC for construction. Semi-Direct Control is the optimal blend of team organization.

The developer must set a weekly face-to-face meeting with the design and construction team to ensure everything is progressing properly. Communication channels should be set up from the beginning with all the team members and the developer. Communication must be transparent to the developer, and all project files should be located in a single location that is accessible to everyone.







Getting away from email as much as possible is recommended. Email creates multiple copies of the same project file, which causes confusion. At the same time, the communication system should save time -- not add more time to the project. [Dropbox.com](https://www.dropbox.com), which New York Engineers recommends, centralizes all project files and communication with minimal setup time. Everyone has access to the current drawings, filing documents, meeting minutes, master schedule, etc. For larger projects over 200,000 square feet, [newforma.com](https://www.newforma.com) is a good solution. Everyone on the design and construction team must be able to share their screen to go over items in detail. New York Engineers recommends [hangouts.google.com](https://www.hangouts.google.com) for screen sharing. A strong face-to-face kickoff meeting -- going over a whole master schedule, budget, team organization, responsibilities, goals, interface points, and IT tools -- is critical to the success of the project. The developer is the best person to run this kickoff meeting.



## 2

# Make the Budget and Timeline Known



Project cost and time are the biggest pains of any project and are also a common disconnect between the developer and the team. Too many developers think that if they don't mention a budget, the design team will design a building under their budget. Or if they do mention a budget, the design team will “fluff up” the building to reach the budget. This thought process couldn't be further from the truth. If the construction cost budget is not stated by the developer from the beginning, then the design team unknowingly adds nice features the developer cannot afford, the bids come back out of budget, and a large value engineering redesign begins taking months of time.

With the budget known, it's the design team's responsibility to alert the developer that cuts in the design need to be made to hit the budget. Everyone must be focused on hitting the budget the first time.



Time is just as important; tracking major dates is critical. Design has the tendency of becoming never ending iterations where a small change explodes over multiple trades and companies. For instance, a new structural beam changes the architectural ceiling, which changes the HVAC ductwork, which changes the sprinkler, which changes the light. The developer should make the submission deadline very clear from the beginning. Time must also be tracked for bidding, filing, and construction with weather contingency. Three costs and schedules should be prepared for slow, average, and fast timelines. As the project progresses, the team's performance can be tracked.

### Some critical dates to track are:

- ✓ Kickoff
- ✓ Schematic Design (SD);  
also used as Department of  
Buildings Filing Set
- ✓ Design Development (DD)
- ✓ Utility Approvals
- ✓ Construction Documents (CD);  
also used as Bid Set
- ✓ Department of Buildings and  
FDNY Approvals
- ✓ Construction Bids Due
- ✓ Contractor Awarded
- ✓ Construction Begins
- ✓ Foundation Complete
- ✓ Structure Complete
- ✓ MEP Complete
- ✓ Finishes Complete
- ✓ Signoff
- ✓ Temporary Certificate of  
Occupancy (TCO)
- ✓ Occupancy
- ✓ Certificate of Occupancy (CO)






# 3

## Perform Code Research First



NYC has the strictest, most complex building code in the world, compounded by aging infrastructure that has been “grandfathered” in under older codes at different dates. The simple answer given by most architects and engineers is: “everything must be brought to current code.” This isn’t the case, and a savvy architect and engineer can save the owner enormous construction cost by performing code research first. For a renovation,  $\frac{3}{4}$ ” sprinkler piping is no longer allowed; you must use 1”, but you don’t have to replace all the  $\frac{3}{4}$ ” piping on the whole renovated floor. If you aren’t touching it, you can leave it. If the new condo building is 124 feet tall, it doesn’t require an emergency generator. If it’s 125 feet tall, it does.

*[Source: Special Detailed Requirements Based On Use And Occupancy]*



New York Engineers recommends listing out all code questions at the beginning of a project, finding code references, and designing with these answers in mind. If the code is vague, it is up to the Engineer of Record on the project to make a determination. The Department of Buildings and FDNY has the ultimate say. [\*If the question is large enough, you can file a CCD1 to get the Construction Code Determination from the DOB before the design begins.\*](#)

Make sure you have enough time; the DOB runs about 2 months before returning an answer to you. Code research has the largest impact on the project cost and design; effort should be put in up front to get solid answers before the design begins.

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# 4

## Strong Kickoff With the Team | Use Templates at Kickoff




The kickoff meeting should set the tone of the entire project. For an under 20,000 square feet project, the kickoff meeting should be half a day. For an over 20,000 square feet project, the kickoff meeting should be a full day. All team members should meet face-to-face. The developers should start by going over the high level goals of the project, mainly construction budget, timeline, and communication paths. Does the developer want to be copied on all emails? Is all communication sent to the Owner's Representative and distributed by the Owner's Representative? A typical 20,000 square feet project will create around 2,000 emails, 500 phone calls, and 150 meetings to complete. The developer or owners rep will quickly become overwhelmed. At the same time, the developer should have real-time, self-serve access to all of this information when needed. Having all information in one place like [dropbox.com](https://www.dropbox.com) is a best practice.



All team members should arrive prepared to the kickoff meeting with their project kickoff template to fill in information from the other team members and owner. As MEP engineers, New York Engineers has a project kickoff template to capture the design intent from the architect and developer. It takes about 2 hours to complete, and it is amazing what discussions come up from utilizing this template.

A kickoff template is the best way to guide the discussion. Each question can be discussed with options, guidance given, and an option chosen by the developer with the help of the whole team being present. Avoiding “I’ll get back to you on that” is key. Having the whole team present always leads to the smartest decision-making. All questions on the team’s templates must be answered to give the team clear direction to ensure you are getting the project you want. With large complex teams, a clear vision from the developer is key to ensure the team doesn’t stray from your vision. The Architect, MEP Engineer, Structural Engineer, Interior Designer, and Expeditor should all arrive with their kickoff template and spend one to two hours going over their template.





The specific information each team member needs to give the other to complete their work and each handoff point between the team members should be specifically listed and clear to everyone. These are the high priority items to begin immediately, so no team members are waiting on other team members. After this meeting, the team should all be well-informed, have all their templates filled out and questions answered, budgets and deadlines known, and handoff points clarified. It's time for the whole team to go back to the office and begin work immediately!





# 5

## Quick Decisions By Owner



Many times, the developer or owner is the only person who can answer the questions, “What’s the split of studio, 1 bed, and 2 bed you want to have?” “Do you want to separately meter the commercial tenant’s gas and electric?” These are always tough questions to answer. But taking more than two days to answer these types of question will severely delay the project. Many times, the owner ends up delaying his own project, which is the last thing anyone wants. If you don’t know the best decision, ask the design team, “What do you recommend?” “What was decided on other similar projects, and how did it turn out?” That’s what your team is here for – to help you through these decisions. But sometimes the ultimate decision must come from the owner.





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