



Managing the Construction Phase

The seeds of a successful construction phase must be sewn at the earliest stages of a project. It starts with an owner bringing the right professional team to the table. An experienced architect/engineer team can help an owner establish a basic framework while a project is still in the embryonic stage.

The owner's program must be test-fit into its intended space. That same space must be thoroughly surveyed and evaluated by the professionals to determine if there are major physical and/or code obstacles which may make it logistically and/or financially difficult to develop. The key by-products of this process are the project budget and phasing plan. Any given project will fail long before its construction phase if its program is forced into an unsuitable location or if it has an unrealistic budget. With the right professional team in place, along with a tested program, budget and phasing plan, a good foundation has been laid for the development of the most important project element: the construction drawings and specifications. A detailed, well thought out and coordinated set of bid documents is the key to a successful construction phase and will usually result in "real" construction numbers being quoted by bidders.

As the construction drawings are nearing completion, the owner and the professional team must identify who will bid the project. In past newsletters I stressed the importance of bidding to a "short-list" of pre-qualified, experienced contractors. Without the "right" contractor, the construction phase may be subject to cost overruns and time delays. Now, as an owner, you have laid a strong foundation for your project; you have selected an experienced architect who tested your program and space, helped establish your budget, produced a tight set of bid documents and helped identify qualified bidders. Once the bids are in, the architect should also breakdown and evaluate those quotes, helping the owner identify the lowest qualified bid.

As the construction phase begins, the contractor is required to send shop drawings and samples of materials, systems and equipment to the professional team for review. These quality assurance "submittals" allow for one last detailed examination of major construction elements before anything is purchased or installed. At this stage the architect is also making sure that all agency approvals/permits are in place and that the contractor is aware of all required inspections that must be done by the local building department and/or code mandated independent special inspectors hired by the owner. Good, clean lines of communication and timely responses to field inquiries are essential to keep the construction phase on schedule and on budget. An experienced architect knows how to "think on their feet" and works well with the contractor to resolve issues on-the-spot to keep the job moving. As part of the construction phase responsibilities, the architect is also reviewing and certifying contractor payment requisitions to facilitate monthly draw-downs.

As the project nears substantial completion, the architect is verifying that all required inspections have been done and that agency sign-offs have been obtained. The professional team is also checking that the contractor has forwarded all required guarantees, warranties, equipment operating and maintenance manuals, material attic stock, etc. to the owner. As a final step, the professional team will complete a punch list of incomplete or unsatisfactory work. The contractor must then complete all punch list items before any remaining contract sums are paid.

