

(i.e., 75 percent completion to 100 percent). Designers should always review in great detail, and as a separate task, the construction drawings that are used for purposes of pricing. This pricing review must take into account the expectations of the other parties involved, namely the general contractors and their subcontractors, building or property owners, and managers. To generate the best results from the bidding process, designers must understand that they will need more than a comprehensive set of construction documents—they will need to provide more detailed information about various components. At first glance, the drawings will always illustrate the level of detail and information that the contractor needs to construct the project, but often the designer should include basic information that may not affect the architectural essence of the project but will provide for a more complete interpretation by the contractor of the designer's submission. The key is to leave as little as possible for interpretation. With this in mind, there are a few simple methods, that have proved to be ideal for projects of any size or type.

Projects involving a construction management process will require special consideration for bidding. In these projects, trades may be split apart from the overall job and one another. Without information from the design professionals, individual contractors will not have information about how the work they are bidding on may be affected by others' work. This type of bidding process requires unusually tight coordination since bids may be solicited at different time intervals.

Contractors find it useful when, in addition to the actual contract documents, they receive an itemized list of key items to be considered in their take off and costing exercises. Typically, this detailed list should be organized in accordance with the room or area numbers for interior finishes and requirements and general notations, which should reference the plan. An example of such would be:

ROOM 100
RECEPTION AREA

- Building standard carpet (Upgraded from Building standard/cost: \$20.00 uninstalled) with marble surround
- 3-way switch for general lighting
- 2 core drills for power/data
- Electronic strike and release to reception desk. Programmable keypad for door release at public corridor side.

- Class E tie-in
- Fire strobe
- 4 outlets
- Emergency lighting with battery backup
- Paint all walls and door frames
- Drywall ceiling
- 12 down lights
- Millwork reception desk
- Herculite doors with accessible hardware and concealed closers
- Building standard hollow metal door to adjacent interior corridor

Your list can be as detailed or as simple as you like, but it should be synchronized with the level of detailed information in your construction documents. Other things to consider are fire extinguisher enclosures, egress signage, blinds or special treatments for windows, and ADA-compliant hardware and appliances. Remember that the more details you provide, the less room there is for oversight by the contractor. Similarly, know what contractors look for on drawings for cost and, even more important, where they look for certain information within a set of construction documents.

The next rule of thumb is quite simple: place notations or special requirements on the documents where they are most obvious—that is, a note about a special requirement should appear on the sheet to which it pertains. This is a good habit, especially for bid documents, and can help to eliminate the problems that arise when design professionals write catch-all general notes at the beginning of the set. These general notes can be overlooked, confusing, redundant, or irrelevant to the actual project. In contrast, page-specific notes allow contractors to bid realistically.

Professional trade organizations such as the AIA, ASID, and AGCA have published detailed methodologies on the bidding process in their respective handbooks of professional practice and by-laws.

Contractor Pre-Qualification

Before bids are taken, the design team should compile a long list of possible contractors for consideration. It may identify firms through advertisement, past experience, lists maintained by the building owner, or other means. In