## conference preview EFFECTIVE PROJECT MANAGEMENT

BY LYN BUSBY

**THERE ARE MANY TASKS** and responsibilities associated with managing a steel project. And dividing the job into smaller, more manageable phases will help you better manage each portion and the project as a whole.

## Making a Plan

The first phase is the start-up or planning phase. Generally the shortest and arguably the most important phase, it begins when the project gets turned over to the project manager. Establishing a thorough preplan (or not) will affect the rest of

the job. The planning should include a review of the contract, contract drawings and specifications as well as the project schedule and your company's proposal. The results of these reviews need to be communicated to the rest of the team: the detailer, the shop, QA/QC and the purchasing department. These communications are very important and should happen even if the project manager has already issued a copy of these documents to all involved parties. Even though some of

these documents, such as specifications, may appear to be generic, provisions that are specific to the project should always be identified and noted. The communication of these reviews is even more effective when special written instructions are issued.

During this start-up phase, the project manager should be introducing themselves to the customer in an effort to establish clear lines of communication. The customer needs to know who is responsible for the project, and the project manager



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needs to know to whom the commercial and technical issues or questions are sent. This is also a good opportunity to arrange an in-person kick-off meeting with the customer. Include the key members of your team in these discussions. If a project is going to succeed, it will depend on the entire team. Along these same lines, it is sometimes beneficial, depending on the size and/or complexity of the project, to also arrange an in-person kick-off meeting with the detailer. The benefits of these faceto-face meetings always result in better communications and help establish a better working relationship.

There is an art and a science to effective project management. The project manager needs to be fluent in both aspects. In the early phase of the project, the project manager should start setting up all the project-specific documents such as the job schedule, the status report, RFI log, changeorder log, cash-flow projection, schedule of values, invoice log, etc. These are typically standard forms used on every job and, if kept in a generic format, can be relatively quickly and easily adapted to project specific requirements.

## **Following Through**

After the planning has been completed, the project moves into the next phase. This phase consists of following the plan that has been established. The detailer should be working and RFIs are starting to flow. A detailed RFI log should be kept that references the detailer's RFI number, the project manager's RFI number and at times even the customer's RFI number. Also included should be a brief description of the RFI, when it was submitted and how long it has been out. In addition to the log, the outstanding RFIs should be documented in a detailed status report, which should be shared with the customer on at least a weekly basis.

The project status report is an important tool used to track pertinent project specific items and in addition to addressing outstanding RFIs should address the detailer's status, including estimated number of drawings by area, the number of drawings that have been submitted for approval, how long they have been out and how many have been issued for fabrication. The report can also include material and fabrication status; this status is particularly helpful to both the customer and the project manager on projects with tight schedules. In addition, the status report can address action items and change-order requests and how long they have been outstanding. It is important to push to set up a weekly call with the customer in order to review this status report. If it is not reviewed and discussed on a regular basis, the report tends to get filed and forgotten about. This problem becomes more prevalent on projects with longer lead times, where your company is not necessarily the focus of attention at the moment.

Sometimes customer changes start appearing very soon after the start of a project; other times they start after detailing is well underway. Either way, a clear, detailed system for identifying these changes, reviewing the changes for cost and/or schedule impacts as well as submittal and tracking of these impacts should be developed. Do not let changes linger; nothing good will come of that. Address changes early and make sure the customer is kept aware of the issues. This system should include a clear and simple process for presenting changes as well. More than likely, the project manager will be sitting across the table from the customer at some point explaining how these cost and/or schedule impacts were developed. The more complicated the presentation, the longer this will take and the less likely the outcome will be in the project manager's favor.

Invoicing is another very important step in this phase. Try to get a small invoice out as quickly as possible after the start-up. There are a couple of reasons for this: A small invoice is easier to get paid than a large one, and the project manager will also learn what pitfalls await when the larger invoice is submitted. Very likely there are levels of documentation needed to process the invoice, multiple levels of customer approvals required or cut-off dates to get the invoice in. Learn this process early and you will increase the likelihood of the invoice getting paid on time.

There are many other tasks being performed by the project manager during this second phase including review of shop drawings, vendor coordination, subcontractor communications, materials, fabrication and delivery scheduling and answering shop and field questions. At times, these tasks may seem to become overwhelming, but the key to being effective is establishing a clear plan early, following this plan and addressing the issues that will inevitably come up, quickly and decisively.

## **Closing Out**

The last phase of the project is the close-out. There are submittals of documents needed such as warranties, as-builts, etc. The final invoice has to be submitted and more than likely, the retainage will need to be addressed. This phase can be short and sweet or may last for months. The project manager should stay in regular communication with the customer to make sure this process stays on track. After the scope is complete, the customer will be heavily involved in the next trades and you will no longer be the priority. But do not go silent.

There is an art and a science to effective project management. Some project managers are very good at one or the other, but to be effective requires the project manager to be fluent in both aspects. The science portion centers around the mechanics of every project. This consists of the checklist items such as RFIs, drawing submittals, vendor and subcontractor purchase orders, documenting and tracking changes, status reports, invoicing, scheduling and shipping. With a clear plan and a little experience, these tasks become repetitive and efficient.

The art portion is a little tougher to define but consists mostly of the ability to establish a productive relationship with the customer, vendors and subcontractors; presenting and selling extras; effectively communicating priorities; recognizing potential issues; and staying in front of those issues.

No project is too large or complex to manage if a clear plan is developed and then followed. However, an effective project manager needs to recognize there are a large number of tasks that have to be performed, and being able to effectively delegate some of these tasks, when possible, is sometimes necessary. The project manager should also realize that no matter how well a project is planned and set up, plans can change abruptly and intelligent, logical decisions must be made quickly in order to keep the project moving in the right direction.

This article is a preview of Session N16 "Effective Project Management" at NASCC: The Steel Conference, taking place April 13-15 in Orlando. Learn more about the conference at www.aisc.org/nascc.

