

Project Management Tools

by Denise David Baer

Some of a successful contractor's best tools have no handles, triggers, electrical cords, or batteries. In fact, these business "tools" are the ones you should grab first, long before work begins on site.

The set of business tools I use most have to do with project management. I call them "job controls," and I put them to use the moment our company

Stupid. Those that failed were either too complex or too cumbersome for field personnel (who I quickly learned will tolerate only so much paperwork). If the field crew have to choose between banging nails and filling out a complex set of management forms, the nails win every time. One key is to move slowly, building one job control at a time until you have an entire system. If you add every-

body on board, we hold quarterly staff meetings. Attendance is mandatory, but we make it easy by always scheduling the meeting for a Friday afternoon, buying lunch, and by paying employees for their time. We discuss upcoming projects, any recent problems — and solutions — including the rationale behind any new procedures. (We also provide other employee education — Dale Carnegie courses, management classes, and so on — but that's a story for another column.)

Over the years we've learned which controls we needed and why through a tortuous process of trial and error. Here's a look at the problems we discovered and the controls we established to solve them.

Document Control
A good contract is the basis for all other job controls, so that's the first place we turned our attention (see *Strictly Business*, 4/97). Next came document controls, especially as applied to architectural drawings and specs. For example, we've occasionally found ourselves bidding from drawings that don't have completed

	1/20	1/27	2/3	2/10	2/17	2/24	3/3	3/10	3/17	3/24	3/31
RNM	demo footers framing	framing insulate	mill trim prep for masons	mill doors & siding	← install doors & siding →	install cabinets	porches & arbors	porches arbors window	cobble-stone edging	punch-list rest fireplace	
Z & H Masonry			slabs	← rebuild brick walls →							
Weaver Stone Mason				← stone fireplace →							
Red Maple Elect.	disconnect	← rewire old section →		← wire new section →			interior fixtures		exterior fixtures		
Groff's Plumbig & HVAC	disconnect			rough-in			finish				
Brubaker	deliver framing mat'ls		deliver mill mat's to shop				deliver porch arbor mat'l				
Marvin								deliver special-order window			

Figure 1. A simple scheduling chart is one of the author's crucial job controls. The chart ensures that material suppliers and subcontractors are notified early of critical dates in the project calendar.

begins negotiating with a prospective client. Once we start using the job controls, we never stop — not even after a project is completed — because they create a management history that becomes the basis to estimate and manage future projects.

All of our successful job controls have passed the KISS test: Keep It Simple,

thing all at once, you'll have a mutiny on your hands.

Also remember that you can't succeed at project management by yourself: You need the help of your frontline employees. Unless your entire work force is educated as to the whys and hows of your project management tools, the system has no chance of survival. To get every-

product selections — not a good idea, unless you're willing to fill out a ream of change-order forms. We've also worked on time-and-material projects that had little or no drawings and specifications — the job was literally designed and specified on a day-to-day or week-by-week basis.

To combat these kinds of problems,

we include in our contract a complete list of the drawings and specs that have been provided at the time of signing. We even date-stamp the documents to indicate when we received them. (In fact, we date-stamp everything, and so should you.) Sometimes the list is very short on the day we sign the contract. If problems occur later, we have a paper trail that shows what documents we received and when we received them.

We create a similar history for all of the up-front requirements dictated by our contract by simply checking off and dating directly on the contract each item as it is completed. When we get the down payment, for example, we put a check mark and the date received right on the contract; the same goes for the client's financial statements, insurance certificates, receipt of the architectural documents, and all the rest. We date-stamp the actual documents and place them or copies of them in the job file as they are received. See, no extraneous paper work yet.

Scheduling

We're one of those contractors who stays on the job site every day from the day the project starts until the day it's completed. That's what our clients expect, and we've built an enviable clientele base that way. For us, aggressive scheduling is the name of the game, so we don't allow for any downtime. Before the job starts, the supervisor prepares a simple handwritten flow chart showing the dates of major material deliveries and subcontract work, as well as the schedule for the work our crews will be doing (see Figure 1).

The list of selected subs is then relayed to Karen, our bookkeeper, who compares that list with the current data she has. If we have no W-9 on file or if a particular sub's insurance certificate is about to expire, or if we're working with a sub whom we've never used before, she calls their office to get

a new certificate sent to us before the project starts. She also obtains a current Independent Contractor's statement, which our insurance company requires for "single operators" — subs who have no employees and therefore cannot get workers comp insurance. If we don't have that form in our files at audit time, we get charged a comp premium to cover that sub. In addition, if the contract calls for the subs and suppliers to sign lien waivers, we can get that attended to before the project starts.

As all of these certificates come in, Karen makes copies for the job super's files. We keep the originals of the insurance certificates, W-9, and Independent Contractor's statement in the office.

particular day. Our solution was to have each sub sign in each day he or she is on site (Figure 2).

All of these forms are stored at the site in a "job box" — we use hanging file folders and one of those file carriers that looks like a plastic milk crate. The job box holds copies (or originals where needed) of the building permit, the contract, the estimate, the architectural documents, and all of the certificates mentioned earlier. We also keep a supply of time cards, job-cost phase sheets, change-order forms, and a spiral-bound notebook for recording daily notes, as well as a checklist to remind the super to replenish PPDs, fire extinguishers, and first-aid kits, and to update federal and state notices. This file box provides our job supervisors

SUBCONTRACTOR SIGN-IN SHEET			Job #		
Date	Company	Worker Name	In	Out	PPD's
2/12	Z & H	Tom, Bob	7:30	4:30	
2/12	Weaver	Bill, John, Peter	7:45	5:00	hard hat
2/12	Red Maple Electric	Carl	8:15	1:30	
2/12	Groff's	John, Rick	8:30	5:00	goggles

Figure 2. Subcontractors are required to sign in and out each day they are on site. The job supervisor indicates in the "PPD" column any safety equipment that was loaned to the subs.

Site Rules

We also mail a copy of our job rules to each subcontractor. This notice, which we created in-house, contains a dozen or so "rules of the game" for anyone working on our job sites. For example, we do not allow smoking, profanity, unprofessional behavior, unkempt appearance, or unsafe work habits. We require all subs to use personal protection devices (PPDs) and to remove their own debris daily.

Not long ago we discovered that the charges for calls made from job phones were unusually high, but we had no way of knowing who made what calls. Now each individual on site, whether a sub or our employee, must fill out a phone log whenever he or she uses the job phone. We had a similar problem keeping track of exactly when our subs had been working at a given job site. This occasionally caused confusion for us when we needed to know what work had been done on a

with everything they need in one container that can easily travel from place to place on the site, from job to job, or from a job to the office.

People Are the Key

Of course, none of these project management tools would have worked without frontline employees trained in their use. Fortunately, we have employees who truly understand why the system exists, and who have bought into the idea that well-managed projects are profitable projects. They know through experience that a continuous string of profitable projects leads to a profitable business, which eventually translates into fatter paychecks and better job security.

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