

“What the GC Missed on Bid Day”

by Christopher Grawburg

Congratulations! The weeks of hard work have paid off and your company is the low bidder.

Now it's time to go back through the estimate to make sure you've got everything covered before buyout begins. You know the sitework is good because you did the takeoff yourself. Drywall? Check! Concrete? No problem. But what about the trades you don't know that much about? The HVAC bid, for example. You got what you think is the lowest responsible HVAC bid, but is a bid submitted “per plans and specs” really enough? Does the low guy really have the complete scope? Most general contractors select their HVAC sub on price alone because they don't know what to look for when comparing bids.

When you're getting bids from the HVAC sub, be sure to look for:

1. **Electrical disconnects.** This is especially an issue in the design/build world, but you'll see it on hard bids as well. Almost every piece of HVAC equipment is going to require a disconnect. The electrical disconnect is a device that allows maintenance personnel to shut power off to the HVAC equipment for replacement or service. A *fused* disconnect also prevents power surges from damaging the equipment. Disconnects are required by code, plain and simple, so somebody better buy them.

It's not uncommon for the electrical drawings and the mechanical drawings to have conflicting information on



what trades provides them. As a result of this confusion, many subs will simply list disconnects as an exclusion.

If you miss disconnects, you've got a problem. You can try and strong arm the low bidder to provide them, but you start the project off with an angry sub – and trust me, they'll make up the money on the first change order!

2. **Motor Starters.** If you have a piece of HVAC equipment that uses 3 phase power, that motor will need a motor starter to turn it on. Often times, motor starters are factory installed with the equipment, but pumps and fans usually require a separate starter – and they can get expensive! Don't miss these. Be proactive and don't assume your subs will let you know if they've got them. Ask them on every project if any equipment requires motor starters and price your project accordingly.

3. **Wall cutting and patching.** You'll see this item come up on renovations of existing buildings where piping or duct must penetrate block walls and poured floors. When I bid work, I always excluded wall and floor cutting. I wanted the General Contractor to do the cutting for the same reason he wanted me to do it - whoever messes it up, pays for it. You must get this resolved prior to the bid. Wall and floor cutting is expensive and can get **very** expensive the thicker and bigger the cut! If you don't figure out who has to do the cutting before bid time, you're not covering your scope and your Project Manager and super are going to have to stop their work to figure it out.



4. **Structural supports.** Setting a new HVAC unit on an existing roof? Can you get by with mounting the unit next to a column or straddling a beam? Maybe you have to weld steel under the roof to provide additional support? Who makes this decision? If you're expecting the HVAC sub to know or figure it out as part of his scope you're making a huge error. The only way to really know if a new unit will require structural support is to ask a structural engineer. The reinforcement has to be designed and priced and that shouldn't be left to your HVAC sub.

5. **Duct/smoke detectors.** A duct detector turns the HVAC unit off if smoke is detected in the ductwork. Often it can be factory installed in rooftop units or installed in the return duct below the roof. Be certain to review the plans because it's not uncommon to have a duct detector provided by the *electrician*, installed by the *mechanical*, and wired by the *fire alarm sub*. Miss one or two and your subs might throw them in to keep the job. Miss a hundred of these and you've got a big hole in your estimate. Your subs know what the drawings say, but you probably don't. If the plans are confusing, you can bet most people will leave them out to try and get a change order later.

6. **Expedited schedule / shipping.** Ordering equipment, fabricating duct, and mobilizing a project are not fast processes. Unless told otherwise, HVAC subs are going to bid everything on "standard lead times." That means air registers, fans, and small equipment show up on the project about 8 weeks after the sub gets an approved submittal returned. Large equipment can be over 10 weeks and I've seen specialized units take 20 weeks! If



you have a project with a compressed schedule, you absolutely must let your subs know so the appropriate quick ship can be included in the bid. Quick ship can add up to 25% to the price of the project - if it's even available. The last thing you want is to get a contract with an owner for a 16 week project when the HVAC units are 20 weeks out! Communicate the schedule with your sub as early as possible and put lead times and schedule in writing!

Proper bidding means more than taking the low guy at the last minute and beating him down to fix your mistakes. Your role as an estimator is to win projects at the required profit and to turn over accurate and complete estimates to the operations side. Bid responsibly; ask your subs questions; always do a thorough scope review; and your operations team will look forward to building the projects you win.

