

Sheet Metal Firm Leads Job Coordination Thanks To Decade Of CAD Experience

"I was ecstatic with their performance."

Bob Thomsen, senior vice president with Bovis, must mean it. His company first worked as construction manager with Bonland Industries, Inc. (Wayne, N.J.) as a result of a low bid on sheet-metal work at a major pharmaceutical company in New Jersey.

Recently, for another building at the same location, Bovis choose to work with Bonland again—this time, forsaking the bid process.

That's a far piece from where Bonland and Bovis started. Initially, Bovis had the concept that the sheet metal work was so extensive—and so important to fast-tracking the particular job—that it planned on four sheet metal contractors.

"They were concerned because of the size of the job and the speed at which they wanted to move that one contractor wouldn't be able to handle it," remembers Andrew Boniface, P.E., the executive vice president of Bonland.

"We convinced them that we could handle the whole project, thanks to our ability with CAD/CAM. We told them we had really good people who routinely do this kind of work, and I brought those people with me to one of the meetings—the estimating manager, the drafting manager, the sales manager, and the project manager for the job."

Bonland advocates "sheet metal direct," with the contractor working directly for the owner or owner's agent (instead of as a sub to the mechanical contractor). All subcontractors want to work direct, but not many sheet metal contractors have the resources that Bonland boasts. That includes more than 10 years of experience working with CAD/CAM, and more than a dozen CAD seats.

"My father, Ernie, founded this company, and 29 years ago, in 1970, he bought a computer-controlled shear machine. We've had great experience with computers here ever since."

"On this job, with e-mail, we took even greater advantage of our CAD capabilities," says Boniface. "On a fast-track project like this one, you can't



afford to wait around. As soon as we finished a drawing, we would e-mail it to all of the other disciplines. It was a 'heads up' to them on where we are going."

Note that Bonland goes beyond just CAD. The company uses CAD/CAM to dictate metal work. "On a complicated job like this one, you don't have time for mistakes. With CAD/CAM, we minimize mistakes in fabricating the metal needed."

This project, Boniface says, had perhaps three times as much material installed in ceiling spaces as on most other jobs. This put the sheet metal effort at more than 10% of the Merck job's contract costs, according to Bovis's Thomsen—and put a premium on coordination and leadership.

"These projects are very complex, including the requirements for HVAC," Thomsen notes. "Bonland was the lead contractor. I can't say enough about their effort on this job. They had the lead in what as a very extensive coordination process. They came up with good ways of handling logistics, including doing materials handling on Saturdays."

Bonland had to pay overtime to move material on Saturdays, but Boniface claims this investment was well worth it: "It paid off for us, and for the progress of the job. We got to move our duct more efficiently. And it avoided bottlenecks—we stayed out of the way of other contractors."

Bonland owns six 48-foot trucks; each holds four containers' worth of

sheet metal duct. On site, a crane picks up each container and ports it right over to the correct floor, where sheet metal workers unload it.

Perhaps more remarkable than the Saturday work and CAD/CAM use is the fact there were no serious injuries. "Our goal is to be accident-free, and our motto is 'No Excuses,'" explains Boniface. "And it's working: In our production department, we've gone as many as 12 months at a time without anyone getting hurt. That's pretty rare for a sheet metal shop." Obviously, it's harder to control conditions on job sites. Bonland performs safety audits on a regular basis with unannounced visits to sites by company personnel and an outside safety consultant.

Where the rubber meets the road, Bonland relied upon its workforce (from Sheet Metal Workers Local 25).

"We have a philosophy that we are a team and take care of our people," explains Boniface. "The safety program is part of that. No one should come to work and get hurt. We also share our success with our employees. This year, the day after Thanksgiving, and the day before Christmas Eve will be Bonland paid holidays. We recognize that, without these great people, we couldn't do anything. It is truly a team effort."

"The result is that, on this job, we had a very experienced crew. I can say that all of the time—with confidence—because, in our company, with 263 people, the average employee has been with us for 15 years!"