

Healthcare market focus

A team approach

Renovating the Lorain Community Health Partners' medical imaging unit takes special skills and experience in keeping care units operational, controlling the environment and dealing with high-tech equipment issues

BY TODD WILLIAMS

A restricted working environment, fast turnaround time, and uninterrupted patient care all became critical factors when D-A-S Construction Co. tackled a major renovation of Lorain's Community Health Partners imaging department.

The most recent renovation, and the third in a series of projects at the hospital, occurred in the CT lab. The two previous jobs were completed in the nearby MRI and catheterization labs, according to Gerald Doyle, director of Maintenance/Plant Operations at the facility. Outdated CT equipment and the need for improved work flows prompted the hospital to again engage the services of D-A-S's medical construction experts, Doyle explained.

"D-A-S had the track record with our hospital and in the health care business in general. They had done work for all the major hospital equipment providers and were very well qualified to handle this complex job," Doyle notes.

Spearheading the construction effort was D-A-S's director of medical business development, Dennis Bridwell. With six years at the con-

struction firm under his belt and 25 years prior experience as a site designer for Picker International (now Philips Medical), Bridwell was familiar with the challenges facing his team during the renovation of a critical area in the hospital.

"The big picture in this project was not only the physical construction of the two CT rooms and the control area, but also a desired improvement in patient flow and staffing considerations. We had to plan how the design and construction

would affect the entire hospital," Bridwell explains.

The challenge

D-A-S, working in conjunction with Community Health Partners planners, faced a daunting task. They had to design the new 1,400-square foot space; remove all the old equipment; replace the floor, wall covering, ceiling, cabinetry, wiring and HVAC; and install the new Siemens CT equipment. And all of this had to be done in six weeks while



keeping the department open for patient use.

"There was no room for error on this project. D-A-S spelled out everything in black

and white from the get-go. There was no interruption in the construction schedule and we remained right on budget," Doyle says.



Working with imaging equipment such as this CT scanner is a specialized task.



HP Hutchins Photography

Installing the MRI equipment meant making two wall openings to install the magnet in addition to magnetic shields to protect other equipment. Creating the right homes for medical imaging equipment can create complexities on construction jobs.

In addition to gutting and replacing the walls, ceiling and floor in the three rooms, D-A-S removed and re-designed the control booth partition and replaced all the cabinets in the CT unit.

Bridwell praises Community Health Partners' project input to the team effort.

"The hospital worked closely with us in designing the new space. It used its CAD system to initially design the rooms. We then reviewed those drawings and made our changes," Bridwell says.

The team approach taken by the hospital and D-A-S, Doyle says, made the project go off without a hitch. The only potential glitch was a delayed delivery of the new drywall. But this, Doyle notes, was nipped in the bud by the construction company.

"I feel D-A-S's experience in the medical field, and particularly with our hospital, was a major factor in getting the job done on time and within budget. Their experience in ren-

ovating our MRI unit with General Electric equipment and our cath lab with Toshiba equipment gave them a leg up on this project," Doyle points out.

Proven experience

Bridwell recalls the complexity of the MRI project three years ago. "In that job we had to make two major wall openings to install the MRI magnet as well as magnetic shields to reduce fringe field shape that would affect other medical imaging equipment. Complex construction problems such as this gives us experience to handle other projects such as this recent CT job," he explains.

Doyle cites the successful cath lab project a year and a half ago as a precursor to the recent CT job. "The cath lab is a special procedure room that was upgraded from floor to ceiling including new walls and all new equipment. It gave us more experience in completing these jobs on time, with minimal impact to the patient environment, and within budget,"

Bridwell's battle plan started with demolition of the old facility. This was done in stages, allowing one CT room to remain open while construction went on in the other room. In addition to keeping the remaining CT machine working, the hospital brought in a mobile CT unit to its loading dock to assist in keeping the department functional during construction.

The biggest issues facing the hospital, besides keeping the unit open, were noise, patient control and infection control, according to Doyle. "The construction work had to be done without anyone knowing it was happening. The construction work had to be invisible to the patient," he notes.

Environmental hazards

Doyle says that one of the biggest challenges to this plan was the removal of all the old lead-lined drywall in the rooms. The old material was not up to

the latest hospital and government standards and had to be ripped out and replaced. This was driven by the fact that the new CT machines required improved radiation protection for the hospital staff.

Bridwell explains that removing the old, hazardous lead components in the drywall required that most of the demolition work occur offhours. He also notes the construction team controlled dust and dirt with HEPA filters, tack mats and temporary partitions. Also, construction experts were tested for exposure to hazardous materials on site, providing a safe working environment for all.

"Our team has been certified and trained on the procedures for evaluating the effectiveness of existing lead lined drywall. We also are trained in the safety procedures for removing the existing drywall and installing the new lead lined drywall," Bridwell says.

Project specs:

Community Health Partners Medical Imaging

Timeline: six weeks

Size: 16,000-sf

Vendors:

- Acme Glass
- Frank Novak & Sons
- General Electric
- Higgins Electric

■ Imperial Heating & Cooling

■ Lakeland Electric

■ Siemens

■ Shielding Dynamics

■ Toshiba

■ Tri-County Painting

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the operations manager says.

Although there are no new projects slated for Community Health Partners, the hospital and D-A-S Construction Co. are continually evaluating patient treatment and diagnostic needs as well as medical and government requirements.

"Our long term goal is to continue to provide superior patient care. To this end, we will upgrade our facilities and equipment to remain on the cutting edge of health care," Doyle emphasizes.



D-A-S CONSTRUCTION

Hospital work demands infection control, noise control and working around the stringent needs of staff and patients.

For D-A-S Construction's Bridwell, who counts 15%

of his firm's projects as medical related, the Community Health

Partners' job was another in a long string of highly complex jobs in which he's been involved. "We've earned our Associate Contractor label with General Electric, Toshiba, Phillips and Siemens in the Great Lakes Region. We've done this by addressing our client's needs in detail from actual construction to patient flow. How everything affects the entire hospital is foremost in our design criteria," Bridwell concludes. **BXM**

Todd's photographic and writing skills are appreciated throughout the commercial construction community.

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