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When the decision was made in 2005 to redevelop the original Alberta Children's Hospital in Calgary into an outpatient health centre, the plan called for renovations to take place in a vacant building. That was just one of the assumptions that changed during the re-development of the former hospital to create the Richmond Road Diagnostic and Treatment Centre (RRDTC). Over the course of almost three years, the \$58.3-million project underwent several major revisions, challenging everyone involved to bring flexibility and patience to their assignments.

Even before the hospital ceased operations, Joanne Smith of SAHURI + Partners Architecture Inc., the project architect for RRDTC, began meeting with representatives of the 19 programs and services that were originally approved to occupy the Centre to examine all aspects of functional programming. They reviewed staffing, hours of operation, different patient types, patient flows, projected growth, space requirements and the need to be close to other programs or services.

"This exhaustive process extended from January 2006 well into the summer with the more complex groups,"

LOCATION

1820 Richmond Road S.W.
Calgary, Alberta

OWNER/DEVELOPER

Alberta Health Services

FACILITY OPERATOR

Calgary Health Region

GENERAL CONTRACTOR

EllisDon Construction Services

ARCHITECT

SAHURI + Partners Architecture Inc.

STRUCTURAL CONSULTANT

HMS Engineering Ltd.

MECHANICAL CONSULTANT

Reinbold Engineering Group

ELECTRICAL CONSULTANT

Stebnicki + Partners

TOTAL AREA

189,000 square feet

TOTAL CONSTRUCTION COST

\$58.3 million



Richmond Road Diagnostic and Treatment Centre

by Bill Armstrong

says Smith. "For example, Endocrinology had five components that had been working out of five different locations. These people had to sit around the table and imagine what they would need to be able to work together as one group. A lot of give and take was required, but with that information we had the basis for the design development and a documented resource that was critical to the rest of the project."

The last patients moved out of the hospital in September 2006, 54 years after the building opened. Because it had been a health care facility, one of the premises of the original plan was to retain existing spaces where possible. A good idea, but one that soon had to be revisited, says Stuart Borthwick, the RRDTC project manager for Alberta Health Services. "As the functional programming and design development work proceeded we identified that architectural, mechanical and electrical systems had to be upgraded in most of the renovated areas to meet various building codes."

This was certainly the case for Stebnicki + Partners, the electrical consultant, which was charged with ensuring the safety of the building and its occupants while the entire fire alarm system was replaced with a new system. "Implementing this system change-over was one of the successes of the project," says Richard West, who managed Stebnicki + Partners' role in the project from 2006 to completion.

Smith notes that there were areas where the programming required minimal architectural renovations, "but as soon as we touched mechanical or electrical components to bring all the systems up to the new codes, the amount of patching and repairing required was similar to starting from scratch. We did locate programs requiring medical gases in areas where lines were already located, minimizing the need to run new ones. Existing infrastructure was left in place even if it wasn't necessary, providing future flexibility."

Flexibility was a recurring theme since various departments, clinics and support services occupied the building while the renovations were underway. Delays in completing other buildings meant that some departments had to be accommodated within the RRDTC. The originally planned five phases were compressed into two, and funding availability changed as well. These moving targets emphasized the need for good communication with everyone involved, which meant plenty of meetings.

"The phased approach has its advantages in that you can focus on one floor with five programs instead of 19 different programs and services on more than one floor," says Smith. "The disadvantage is that with every change to the plan we had to examine how staff and patients would be affected."

Polina Pankiw managed the project for the general contractor, EllisDon Construction Services. She used a construction management strategy to provide the flexibility necessary to meet the client's shifting priorities. Since each phase involved several areas within the facility, Pankiw and her colleagues created separate schedules for each as a means of coordinating tasks assigned to the sub-trades. "We were able to keep tight control over manpower so it would be available for each area as required," she explains. "Working in phases requires diligence to ensure all materials are ordered and arrive for the correct phase at the correct time."

The project had been scheduled for completion in mid-2008. Once the final amount of financial support was known, EllisDon adjusted the budget and the schedule. "The flexibility of the construction management strategy saved the client a considerable amount of money," observes Pankiw.

By bringing several outpatient services under one roof in one location, the RRDTC frees up space in Calgary's acute-care hospitals. Looking back on "this very difficult project," Borthwick says the positive feedback he's received from people who work in the departments and units now housed within the Centre tell him it was a success. "I think the entire team has done a terrific job in meeting the challenges on the RRDTC site, and made it a very successful project." ■



PHOTOS: CHRIS BOLIN