

ACE Entry Project Information:

Project Team:

Construction Manager/General Contractor: Saunders Construction, Inc.

Design Architect: FKP Architects

MEP Engineer: BCER Engineering

Civil Engineer: Lund Partnership

Structural Engineer: Martin and Martin

Landscape Design: Studio Insite

Technology Drawings: RimRock Group

Date of Groundbreaking: May 23, 2012

Completion Date: November 6, 2013

Project Construction Cost: \$74,000,000

Overview

Constructing the best building doesn't mean it's the biggest, the most expensive or the prettiest. The best building is the result of innovation and dedication, and is backed by its contribution to the community. Children's Hospital of Colorado South Campus is just that — a state-of-the-art facility that nourishes, protects and cares for the future of Colorado.

Saunders Construction, Inc. is submitting the Children's Hospital Colorado South Campus project in Category 11: Best Building Project (over \$70 million – General Contractor).

Big Effort to Help Little Lives

As one of the nation's fastest growing metropolitan areas, the city of Denver and its surrounding suburbs have become subject to the increased demand of every day necessities — necessities such as children's healthcare.

To meet the need, Children's Hospital Colorado (CHCO) knew they needed a new facility, but just how it was going to be built had yet to be determined.

Armed with high expectations and a tight schedule, CHCO selected Saunders Construction, Inc. as its Construction Manager/General Contractor responsible for building and delivering the new hospital.

Building a Gentle Giant

Built from the ground up, the 182,000-square-foot South Campus facility located in Highlands Ranch, Colo., includes inpatient care, outpatient clinics, 24/7 urgent care with 22 exam rooms, sports medicine program, pharmacy, surgery center with four operating rooms, infusion center, laboratory services, imaging services and diagnostic services. The building also has a one-story underground space with a walkout for the loading dock.

In addition, the facility features a family hospitality area, play areas for patients and siblings, a cafeteria/coffee shop and conference rooms.

While the facility itself is impressive, it's the teamwork and dedication to designing, building and delivering the hospital that truly leaves an impression.

Saunders was selected as the CM/GC before design was developed for the project, thus maximizing the need for constant communication and coordination. The challenge became developing a solution to work efficiently and effectively with the design team, ensuring documentation and construction deliverables were developed not only on schedule, but concurrently. Therefore Saunders worked hand-in-hand, on a daily basis, with the design team to build the work as soon as documentation was approved. The dynamic, ever-changing process allowed Saunders, along with the client and design team, to construct as design was being created, and design as construction was occurring. An integrated process was born from the challenge, as it required an immense amount of attention to detail from every team. Saunders utilized tablets in the field to ensure constant sharing of models and information to field employees from the client, management and the design team.

The project, which was of substantial size, also had a substantial start to finish completion goal of 23.5 months from the day the Architect was selected. As a fast-track project, a lot emphasis

was paid to schedule, quality and delivery. Saunders' relationship with local entities in the Highlands Ranch area proved to be vital in the expedited construction process, providing base knowledge of jurisdictional and entitlement challenges, as well as permit requirements in the area.

Saunders also worked to involve key subcontractors early on in the process so they could procure long-lead items while the design was being developed. For example, weekly mill orders for steel were made during structural design, and the full curtain wall package was developed in collaboration with the architect prior to design completion. The team maintained a positive and collaborative attitude throughout the entire project, thus resulting in an on-time delivery.

Working Together for a Common Goal

In order to properly manage the many moving parts of this project, Saunders implemented an integrated team approach. To facilitate this process, all team members worked from a single, integrated Building Information Model (BIM) using cloud-based technology. This process enabled the early procurement and fabrication of critical items including structural steel, curtain wall, mechanical and electrical systems, and fire detection and protection systems.

BIM was also used for Saunders' Quality Control Program. By using BIM, the team was able to streamline the QC process by tracking issues through the software – enabling the client to view the information in real-time, while also allowing Saunders to address the issue sooner and more effectively.

In addition, CHCO was focused on receiving a fully integrated Facilities Management model at project turnover. While a premium, CHCO was proactive in this approach — which ensures the appropriate measures are in place for any future changes. In the end, Saunders was able to provide a Facilities Management model that includes warranty and service manuals, scheduled maintenance, occupancy information, asset tracking and monitoring.

Safety is an integral part of every project we participate in — whether \$500,000 or \$70 million. As such, we created a very active and results-oriented Safety Committee comprised of field,

office and management staff. The committee's main focus is to enhance the knowledge and training of Saunders' carpenters and laborers, resulting in a well-informed and responsible group. Our commitment to safety is reflected in our in-house training program that exceeds OSHA requirements. Our ongoing safety program offers employees at least five hours of safety training and eight hours of technical training per year through both field and classroom experiences.

At CHCO South Campus, site and safety awareness continued to be enhanced during daily pre-task meetings. These mandatory meetings, directed by the superintendent or foreman, identified daily tasks and any associated hazards that may be encountered during work performance.

Peak labor on the project was approximately 350 workers; so tight subcontractor coordination was crucial for safety project-wide. No project can be successful if safety is compromised. With more than 500,000 total manhours on the CHCO South Campus project, employees' true commitment to safety resulted in a 0% OSHA Recordable Incident Rate and zero lost time accidents.

Care for Children at the Heart

Patients and visitors will find rooms dedicated to play, with interactive toys and colorful artwork, located throughout the hospital. However, CHCO's strong desire for children to have a welcoming, enjoyable experience at the hospital extended far beyond playrooms. While installing MRI equipment is not new to Saunders, this particular MRI was quite unique. As part of CHCO's effort to ensure every child receives the best care, this MRI provides patients with an "ambient experience." This experience allows children to select a child-friendly theme (e.g., safari, underwater world, etc.), which is then displayed on the walls, ceiling and floor of the room. This feature not only projects vivid displays and the sounds of the theme — it gives the once daunting idea of an MRI a much more appealing, child-friendly approach.

Efficiency was at the top of the list for facility functionality. With five floors and several services, CHCO needed practical, well-utilized space. A unique, but functional feature of each Operating Room is the addition of an induction room. The induction room is a single-file line of

sorts — as the OR room is occupied, it allows for surgery preparation on the following patient. This design saves time, and allows for additional operations to be performed on a daily basis.

Storybook Ending

There's always something a little special about working with children — whether it's caring for them, or constructing the building in which the care is provided, but Saunders wanted to do a little more for the patients. So after it was discovered the classic Radio Flyer Red Wagon was used as a gurney to transport children around the hospital, Saunders employees volunteered time and monetary donations to provide dozens of the wagons filled with toys to the new facility.

In the end, the CHCO South Campus facility was delivered on time and within budget, but more importantly it opened the doors for sick children to receive the best possible care by nationally recognized pediatric specialists — and there's nothing more satisfying than that.









