

Category: **11 - Best Building Project – General Contractor (\$10 - 40 Million)**

Contractor: **GTC**

Project: **Swallows Charter Academy**

Swallows Charter Academy opened in 1996, part of Pueblo School District 70. By 2019 the K-12, located in tight-knit, fast-growing Pueblo West, Colorado, had become a hub of the community. In addition to hosting town meetings, the school served over 600 students and struggled to keep up with enrollment demand. A multipurpose building/gymnasium was built in 2016, but K-8 students shuffled between a repurposed grocery store and several modular buildings for classes. High school students learned out of a former strip mall across the street.

Due to their urgent need, SCA was awarded \$20M—one of the largest BEST Grants ever given to a charter school. With these funds the school built a sleek, new 43,491 sf, two-story classroom and administration building. The structure incorporates timeless design, high-end security, and green features such as a state-of-the-art rooftop solar photovoltaic system. New corridor additions connect the building to the existing gym/cafeteria and grocery store. A second cafeteria was added to the multipurpose building, and a new playground and soccer field were added outdoors.

The entire project is pending LEED Silver certification.

Solutions of Special Projects

Before construction, SCA secured funding through Colorado’s BEST Grant program. However, the school is situated on two separate, adjacent lots, and the money was designated for only one lot. Concern developed about SCA’s ability to meet Grant requirements.

Dr. Cindy Compton, Swallows’s Executive Director, and Kathryn Meyer, Director of School Services, appealed to the State.

“Kathryn and I had to go to Denver to make pitches to facilitate the lot line issue. It was a lot of legal work,” Dr. Compton said.

The money also had environmental certification tied to its use.

“It is uncommon for Charter schools to pursue LEED, let alone incorporating a photovoltaic system into their project,” GTC Vice President Ric Ruedin said. “During the first few months the team spent a lot of time identifying potential LEED points available to this construction type. It

was determined we would be able to gain additional points for the ‘Energy and Atmosphere’ category if we could include a rooftop solar photovoltaic system.”

The system would cost an additional \$100,000. The team worked diligently to find cost savings measures. Then, since it was BEST-funded, they had to get the State’s permission.

“In the end, the CDPHE had a vested interest in achieving LEED certification and approved the added expense,” Ruedin said.

Another challenge was that the new building attached to the existing gym-building at a diagonal.

“The design wasn’t orthogonal,” Lisa Gardner, Senior Associate at architectural firm Hord Coplan Macht’s Denver office, said. “Steel was a challenge. Bolts capped into concrete. We had to come up with a lot of creative field modifications to get it done right. There was a lot of collaboration with the structural engineer.”

The tight site was also occupied during construction.

“We backed up to the existing building by less than ten feet,” Gardner said. The team had to work to maintain student access while providing site access for safety. “Flint had to shift the boundaries a lot,” she said, referencing GTC Superintendent Flint Swindle. “He kept the site as tight as possible.”

Excellence in Project Execution and Management/Team Approach

The team monitored quality as work was being put in place and in constant dialogue with subcontractors.

“We had some areas where things had to be exact,” Swindle said. “We had big wall graphics, like the mountains in the entry. There were lots of details that came out *really* well. All of our subcontractors did a really nice job.”

“The craft tradesmen on this project were superior in their crafts,” Ruedin said. “A lot of the subcontractors had worked together for years. Their respect for each other’s work was evident. In the end, the punch list consisted of less than 100 items spread out over 62 rooms and 49,000 sf of finished space. That’s a win for the entire team.”

“Having a voice in the design process made a big difference,” Dr. Compton said. “So did being involved in the bidding process with the subcontractors. If there was one with whom we’d

previously had a negative experience, we didn't have to use them. Our opinion didn't fall on deaf ears. We were listened to."

The team's early value management and careful budgeting also paid off: in the end the project returned over \$500,000 back to the BEST Grant program.

Construction Innovations/State-of-the-Art Advancement

From the beginning, the project was different from other education builds. It required out-of-the-box thinking from the team.

"The school's goal was that they didn't want it to look like a traditional school," Gardner said. "We extended the educational experience outdoors and utilized materials appropriate to the climate, such as masonry, to fit into Southwestern Colorado."

"This project includes a lot of ground-polished concrete floors in the common areas," Ruedin said. "Of greatest concern was the possibility of the concrete cracking. We added some belt and suspenders to the already reinforced concrete slab-on-grade and slab-on-deck. In addition to the specified rebar and wire mesh reinforcing, we added Marco fibers to the concrete mix design. The result is a beautifully polished concrete floor with almost no visible shrinkage cracking."

Charter schools often don't have full-time maintenance teams, so the team made sure to install systems the school could easily upkeep.

"The mechanical system we selected wasn't the fanciest one we could've afforded," Gardner said. "We wanted one that was easier for the school to maintain. The less expensive option was the right thing for SCA. It's super energy efficient, but also simpler to operate and won't require an outside service company to keep up."

In addition to the LEED elements, the team installed state-of-the-art school security with cameras and alarms throughout, key-fob exterior entries, and classroom doors that can be locked from the inside. The elevator is on the security system. A voice system enables staff to communicate with everyone at once, in case of emergency.

Innovations also extended outdoors.

"Pueblo West is hot, dry, and windy," Gardner said. "We used the wing of the classroom addition to create a U-shaped courtyard for the playground. It blocks wind, creates shade, and

acts as a park for the community year-round. It's probably the coolest playground I've ever put at a school."

Environmental/Safety

Not many Colorado charter schools pursue LEED, let alone LEED Silver. At SCA, the team monitored their carbon footprint during construction by recycling wood, metal, concrete, and all trash onsite. Much of the structure includes recycled materials. Besides the photovoltaic system, other green elements include electric car charging stations, solar panels, solar tubes, smart lights, smart thermostats, and lots of natural sunlight.

The project had zero safety incidents and successfully navigated coronavirus.

"It was an occupied site during a global pandemic," Swindle said. "School shut down at certain times, but the project never did. Some crew members contracted COVID, but our protocol protected us from spread. We had no outbreak."

The site was also occupied by teachers, staff, and hundreds of students, including Kindergarteners, during construction.

"The biggest safety issue was the travel pass between seven buildings," Dr. Compton said. "We rerouted walkways around campus several times. We had to keep handicap access at all times—one of our owners reps is in a wheelchair."

"On any occupied site, especially an elementary school, co-mingling of students, staff, and construction workers is a very serious concern," Ruedin said. "The work involved not only new construction, but also required access into the existing, occupied school."

GTC implemented a plan to identify all onsite tradesmen and requested background checks and certified, sworn statements from all subcontractors onsite. They tracked workers against employer-provided personnel lists and implemented ZERO tolerance for any tradesmen-student interaction. The school was advised to report any negative incidents.

"Happily, there were none," Ruedin said.

"There were no incidents," Dr. Compton reported. "GTC did such a great job. I was in contact with Flint every day; the workers kept to themselves. It was one less thing to worry about. GTC was on top of all the safety."

"The students were very well-mannered," Swindle noted. "Also, we told the kids if any of them got too close we were going to put them to work."

Excellence in Client Service and/or Contribution to Community

In addition to benefitting the school, the project also benefits the community.

“When we pursued the BEST Grant, we went into it with the community in mind,” Dr. Compton said.

The school has already hosted community forums with law enforcement in their new, larger cafeteria. The new fields have enabled practice for a Pueblo West soccer team, and everyone uses the new playground.

“From the beginning, it was noticeable that the charter school plays a significant role in the community,” Ruedin said. “Residents of Pueblo West are very interested in the success of the school. It was extremely evident the new building is a huge source of pride for them.”

“When anybody comes here for the first time there is a wow factor,” Dr. Compton said. “They’re calling it the crown jewel in all of District 70.”











