

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

Contractor: **GTC**

Project: **Adams County Fire Station No. 11**

Adams County Fire Station No. 11 is not just a fire station. The building marries the newest safety innovations in first responder construction with the latest in advanced technology. Its sleek, modern design has brought energy to a neighborhood on the cusp of revitalization. It provides important group-space for the emerging community, as well as an educational nod to history. And, most importantly, it's a station that, in the words of Chief Pat Laurienti, "has bettered [the firefighters'] response time exponentially" for the homes and businesses they serve.

The station is 31,000 square feet on 4.66 acres. It has five 85-foot-long, pull-through apparatus bays, twelve bunkrooms, and multiple offices, living spaces, and classroom areas. It features City Hall-type rooms, such as a large community center to host events and board meetings, as well as offices for personnel. It houses a historical museum, celebrating the old fire districts. It incorporates a "zones" design, which helps protect the lives of the first responders, themselves, by preventing cancer-causing toxins from entering the station. On top of that, the entire facility is wired so the MEP systems are ninety percent automated, and everything can be controlled remotely, via computer tablet. The media has aptly dubbed this building a "superstation."

Solutions of Special Projects

Prior to construction the Owner and Architect met with Westminster Public Schools to accomplish purchase of the property. The Fire District was buying unused softball fields adjacent to an intersection. However, the elementary school, on whose grounds the fields were located, was still in-use.

"We needed enough space for the station, but we didn't want to buy *too* much of the school's land," Brad Bonnet, of Allred & Associates Architects, said. Bonnet solved fitting the large structure on the narrow site by "knuckling" the station against the corner of the intersection, like finger knuckles. This approach provided street access for the apparatus bay, and it sectioned-off the more public space, the living quarters, and training areas.

During construction, the team realized there was insufficient above-ceiling space to fit the HVAC's ERV unit on the first floor, per the original design. GTC's Superintendent, Joe Turecek, came up with the idea to reroute the ductwork and move the ERV to the ceiling of the second floor. This not only solved the space-issue, but it allowed unsightly exhaust louvers to be moved from the sides of the building to the roof, where they became "invisible." Then, Turecek created a doorframe out of drop-ceiling grid and installed a door in the ceiling so maintenance could easily access the filters.

Another issue came up during selection of flooring finishes. The owner was concerned about minimizing long-term maintenance. So, the whole team visited multiple past projects to review how various floors had held up after years of use. Ultimately, decisions were made to change some flooring types to better suit the owner's long-term needs.

Excellence in Project Execution and Management/Team Approach

"GTC understands that after construction is completed, stations will be in use 24/7 for at least the next 50 years, and that a very high level of quality is required," Lance Swanson, GTC Vice President and Principal-in-Charge, said. To ensure that high level, GTC implemented a quality control program and worked to develop buy-in from the subcontractors involved. The payoff was incredible, down to the smallest details.

The glossy, modern station required exquisite technical expertise. Many of the station's living quarters incorporate rounded walls, curved drop ceilings, and arced cabinetry and countertops in a variety of finishes. The radial surfaces in the dayroom include concrete, marble, tile, carpet, and high-end hardwood, out of which overhead media storage was constructed using concealed fasteners. "There are 13 different radiuses in just the upstairs dayroom alone, and they all came out perfectly," Superintendent Turecek said.

Most importantly, the owner was happy.

"There was very, very good attention to detail on this site," Laurienti said.

"The GTC team had an excellent understanding of what the end result of the design was supposed to be," architect Bonnet said. "The super on this project was one of the best supers our office has ever worked with. When GTC constructed Station 11, they made sure the final result met the Chief's greatest expectations."

Construction Innovations/State-of-the-Art Advancement

Chief Laurienti is passionate about protecting the health and well-being of his team. He knew firefighters face a significant increase in cancer and cancer-related deaths, versus the general population, and insisted the design include the latest innovation in cancer-prevention: “zones.” Returning crews enter the Hot Zone, via the bays, and remove their bunker gear. Then they move to the Warm Zone to shower and change into scrubs. Finally, they enter the Cold (Clean) Zone, in the main station. Sensors keep air pressure highest in the Clean Zone and lowest in the Hot Zone, as an added way to keep contaminants out. The system also has a phone app, which sends alerts for problems with the air handling system. The biggest cost of creating the zones was the floor-to-ceiling partitions, but “it was well worth it, for the lives it will save,” Laurienti said. Station 11 was only the second station in Colorado with this special zoning design feature.

Another unique element is the geothermal system. The station features 24 wells – an atypically large number – each dug 563 feet down, with several miles of piping to assist with cooling and heating the building. The system will pay for itself within 13 years. Additionally, all the station’s lighting is LED and is ninety percent automated, with daylight-self-dimming and occupancy-sensing features. All of the station’s tech can be controlled via computer tablet.

Environmental/Safety

At 31,000 sf, Station 11 is more than double the size of an average Colorado fire station (14,300 sf). So, on top of GTC’s normally stringent safety program, the firm held additional meetings.

“We conducted Job Hazard Analyses daily to assess and pre-plan for potential safety hazards,” GTC Principal Swanson said. The team also held separate meetings between subcontractor foremen, crew supervisors, and the GTC Superintendent.

“Everybody was watching out for everyone else’s guys,” Turecek said. “If a guy on one team was using a ladder wrong, a guy from another team would let him know, and then show him the correct way to use it. This made the project much more collaborative and produced a ‘whole team effect’ for the entire project.”

“The Super was extremely knowledgeable,” architect Bonnet said. “He informed us weekly on site issues and was concerned about everyone’s safety, not just his crew onsite. GTC was excellent at taking care of safety.”

Chief Laurienti agreed. “Joe kept that job tip-top,” he said. And, the Chief noted: “There were no safety incidents for the whole year’s worth of construction.”

Excellence in Client Service and/or Contribution to Community

Station 11 serves its firefighters.

“Chief Laurienti was a palpable force of nature, making sure the design met the needs of his staff,” Bonnet said. “He was adamant about implementing the zones for safety, but he was also involved in details – everything down to furniture selection.”

In addition to comfort, Laurienti wanted to avoid common hazards inherent in the design of most stations. For instance, when firefighters wake for calls at night, they risk stumbling down dark stairs or being blinded by too-bright lights. Station 11’s sleeping quarters are on the first floor, and when a night-alarm sounds, the automated LEDs only power to thirty percent, “so they’re not blinded,” Turecek said. “They can go easily from their beds to their gear to the trucks in five minutes.”

But the station’s primary function is to serve the community. Its location fills a hole from the 2014 merger of the North Washington Fire District and South West Adams County Fire District, which combined to become Adams County Fire Rescue. It includes an engine unit, a medic unit, and a truck company.

“This station was built to serve all. It gives us better coverage for that side of the community,” Laurienti said.

The station houses a large training room, which doubles as community meeting space, and which has already been used for various public meetings, including a town hall. Station 11 also includes a historical firefighting museum.

“One of the promises I made as chief was to preserve the history of both departments, and the museum does that,” Laurienti said. “We even have an antique fire truck.”

Community members are pleased. “The design of this station helped to renew the neighborhood,” the Chief said. “It’s located in an area with demographics that needed the station. But there’s also a new development south of the station called Midtown – a very artsy community – and the design of the station is in line with the look of Midtown. Many people have commented that they really like the look of the station.”

In short, this station is a building that serves *all* of its people. It truly is a superstation.









