

AGC Colorado ACE Awards 2019

Category 8 Best Building Project – General Contractor (Under \$10 million)

General Contractor – GH Phipps Construction Company

Project Name – Rio Grande Hospital and Clinic Expansion and Renovation

Healthcare Construction Elevated

An elderly patient in Creede Colorado, a remote mountain community at 8,700 feet in elevation, needs an operation with a specialized surgeon. The 5 hour trip to the nearest specialist in Denver is burdensome. In 2019, however, this patient simply makes an appointment with the same surgeon in a neighboring town only 37 miles away thanks to the Critical Access Hospital (CAH) Act for rural hospitals. The Rio Grande Hospital (RGH) in Del Norte Colorado is designated a CAH and equipped for the special surgery thanks to its just completed facility overhaul. Rural hospitals are both a vital link to their neighbor's health and an important community asset, but building the complex hospital facilities to support specialized operations in remote communities is challenging. RGH understood this challenge when embarking on their large scale addition / renovation project and selected GH Phipps Construction Company as their CM/GC to deliver regardless of the challenges.

Hospital Construction *is challenging.*

Remodeling over a third of an operating hospital *is challenging.*

Adding on to a hospital with four separate additions on 3 sides *is challenging.*

Building adjacent to **the 3 public access points** of a hospital *is challenging.*

Adding to and remodeling an existing **Emergency Department** while keeping it 100% functioning *is challenging.*

Construction in a **remote** rural settings *is challenging.*

Bringing the right team, the right plan and the right passion to these challenges resulting in complete owner satisfaction, *is an ACE Award worthy project!*

Rio Grande Hospital is situated at 8,000 feet in altitude in the middle of a third of Colorado's 14,000 foot peaks next to the San Luis Valley, the largest alpine valley in the United States, and not far from the Great Sand Dunes National Park. The jobsite had rattlesnakes frequently found in buckets and under plywood, a bison ranch next to the hospital, cold periods dropping to -25 degrees, and the closest "major" town with a population of fewer than 10,000.

RGH has an Emergency Department (ED) and an adjacent Clinic. The facility required many improvements and the Hospital Board took the aggressive approach to complete them "all at once." This included more than doubling the Clinic size, adding 50% more ED, renovation of the single operating room suite, AND remodeling 40% of these departments while keeping it fully operational and safe! *Oh yes then there's this...* in 3 major phases, 6 minor phases and only 12 months total.

Project Execution and Teamwork

GH Phipps was brought on the project early as a CM/GC partner. Our team immediately met with the Design Team, the Owners Representative and the hospital CEO to collaborate and assess the scope of work, project goals, level of finishes and understand the hospital operations. The first estimate reconciliation/review set an accurate target value for the project budget while the project schedule focused on developing phasing plans balancing the shortest duration possible within a fully occupied facility.

Subcontractor solicitation at this remote site required a focused effort. Our team developed a trade-oriented schedule, bid forms and packaged the drawings. A successful open house at the hospital was advertised for any business within 75 miles to learn about *their* hospital's expansion. A number of these firms worked on the project.

Inspections. The Colorado Department of Public Health and Environment is the primary hospital inspection authority. The department gives a high degree of autonomy to its project inspectors and pre-planning is vital to determine the number of "area permits" so phased occupancy is allowed. Our first meeting with our assigned inspector determined 6 area permits would be necessary due to the project complexity and hospital operations. The actual project inspector, however, changed 4 times throughout the project and each had a different perspective. The entire

team had to remain flexible and work to satisfy *this* changing condition. Additionally, due to the remote locations, no less than 1 weeks advance notice would be required for all inspections.

Clinic. The existing Clinic is the busiest department by far and the planned renovations required the phased demolition of 40% of the department. The Clinic's 4 HVAC units were located within the demolition zone, requiring extensive detailed planning / phasing and above ceiling work to keep the entire facility cooled as one-area-after-another were transitioned to the new HVAC units installed in a separate small addition. Many already crowded routes above the ceiling had to carry a duplicate duct system for the new areas until a future phase allowed the removal of the old system. Constant air balance adjustment was needed as modified room registers were opened and others closed phase by phase. The Clinic addition was sandwiched between the hospital and existing Clinic. Access for patients and staff was continuously evaluated and maintained. At one point a new temporary entrance was provided so renovations could be completed. This entrance is still in place and become a useful alternative entrance.

Emergency Department. The 4 phase ED was the most complex part of the project. The ambulance entrance is 3 inches from the addition. This proximity required a temporary timber bridge to keep the entrance open while foundations were constructed. The ED Addition was completed with two new Trauma Rooms and led to the next 3 phases of renovations all while keeping the department 100% functioning and safe. The use of temporary partitions and tunnels kept construction separated from the occupied hospital and would be moved at times when the facility activity would allow. Negative air containments and infection prevention were carefully monitored and maintained with each phased move.

Innovations:

OR Renovation. One of the keys to a Critical Access Hospital is the network of highly specialized doctors that have a prearranged number of days per month to visit these remote hospitals. The hospitals must provide an Operating Room that meets the requirements for these specialties. RGH has a single room OR for this purpose but it needed extensive renovations. The project team kept the final scheduling of this space flexible to accommodate all the patients' schedules that are linked to the multiple doctor schedules. This innovative approach allowed the hospital to be sensitive to both patients and doctors and *their* need before the project needs. A window of 18 days unexpectedly opened but the construction team had only 14 days to react,

plan and acquire all the necessary materials. To complete this space in the allotted time several solutions were implemented included stacking trades (ie...concrete slab patching at the same time as drywall finish), working 2 and 3 shifts 7 days a week and scheduling inspections with no room for error. The team's exceptional efforts were rewarded as the final inspector, while leaving the hospital, virtually passed that patient from Creede scheduled for the first operation in the new OR. The surgery was also successful!

Environmental/Safety:

There are few construction types with more life safety risks than working in an operating hospital **and, within hospitals**, working within OR and ED suites is a top risk. Our planning and implementation of the work in Rio Grande Hospital and the busy Clinic had to take into account the unpredictability of scheduling and the possibility of a fully occupied Emergency Department at any given time. We created phasing plans and reconfigured our temporary partitions over 20 times as our crews worked in 2 or 3 areas at one time always separating the project work from occupied areas. GH Phipps also implemented all aspects of the infection control protocols from establishing negative air filtration and monitoring for airborne particulates, to controls for people and tools through training and cleaning. There were no infection control incidents throughout the project duration. The job site also conducted standard safety meetings with subcontractors and staff to continue our message of keeping a safe and clean jobsite. There were zero lost time incidents on the project.

Excellence in Client Service:

Rio Grande Hospital understands their mission as the regions Critical Access Hospital. They knew just how big a task they engaged when addressing all their needs at once. Surrounding the building with additions and requiring major remodels to the hospital's most important departments was an enormous challenge. Selecting an experienced and agile healthcare contractor was essential. The GH Phipps team ascended to the challenges meeting every schedule and exceeding all expectations.

At 8,000 feet this was truly **healthcare construction elevated.**











