

Aspen Valley Hospital – Haselden Construction

As part of our long-standing relationship with Aspen Valley Hospital, Haselden recently completed Phase III of Aspen Valley Hospital (pic 01) which consisted of a two-story addition with basement, accommodating new facilities for Emergency (pic 02), Diagnostic Imaging, Surgery/Preoperative Services (pic 03), and Ancillary Support Services. In addition, the scope of the project includes a new main entrance and 2-story lobby space (pic 04), and a rooftop helipad (pic 05) and supporting elevator and stairwell. The new construction area is approximately 57,000 SF and renovation to existing/adjacent areas is approximately 20,000 SF.

Heightened structural requirements were one challenge that presented on this project. The entire structural system was designed around a “Seismic Zone C,” which is above average. This meant the structural engineer (SCI) had to design over-strength factors three times the normal amount for an average building. Additionally, snow loads for the Aspen area are increased from an average of 30lbs per SF to a whopping 75lbs per SF. Adding to the complexity, the design located all of the stair cores on the outside of the building footprint (pics 06 and 07), requiring many beams to be oversized in order to handle the added load requirements.

The main obstacle on this project, however, was working in an active healthcare facility with multiple end-users to take into consideration. Because of the different spaces we focused on for multiple departments, we frequently needed to be flexible to accommodate last minute medical procedures, as well as requests to change designs in certain spaces. To be sensitive to the health, safety, and comfort of the patients, this meant remaining cognizant of vibration issues and noise/dust issues, which sometimes led to an unscheduled shut-down of a portion of the site. To make up the time lost due to these delays, the team brainstormed with the owner to determine how to combine the sequencing of two phases into one. Our teams also worked nights and weekends (including obtaining special permission to work Sundays) to further make up the time lost due to the scheduling of critical surgeries.

Dealing with these impediments required our team to work even more closely together than on a typical project. The Haselden team worked with the architect and consultant to obtain real time direction and used a Lean tool called a constraint log – a one-sheet document that describes any

and all roadblocks to working efficiently. Additionally, the evening before each OAC meeting, our team met with the architect to address any outstanding issues; at the meeting the next day we could let the owner know definitely that we were already in the process of rectifying the matters. Having a solid relationship with our subcontractors was extraordinarily important during this project because the unscheduled shut-downs sometimes meant they would travel to the job site, only to find out that their portion of work had to be delayed due to noise/dust mitigation. We also worked together to create a “Champion List.” There were so many unique aspects of this project that we assigned a “champion” to each particularly unusual element, one person who was ultimately responsible to be the most knowledgeable about that specific facet of the job, and whom everyone else could go to with questions (pic 08 shows the MRI, one of the championed items).

Because Haselden—and Haselden project manager, Matt Underwood—had been working with Aspen Valley Hospital since 2003, we were able to offer value engineering suggestions based on our history with the client and our extensive knowledge of their preferences. Matt was able to recommend several product selections and substitutions that were better suited to the client’s tastes and needs, and served them better long term.

Phase 3 at Aspen Valley Hospital is a state-of-the-art facility built using the latest construction technology. Constructed to LEED® Gold standards, Haselden’s Virtual Design & Construction Department used 3D modeling to virtually construct the building before actual construction began, and through clash detection (pic 09) was able to see that the sizing of the steel needed to be adjusted. Finding this detail at such an early stage allowed us to make the change before steel was ordered, saving the owner a considerable amount of money. The cutting edge medical equipment necessitated us learning new standards for ventilation, plumbing, power, and infrastructure. This was another aspect of the project that required and led to increased team cooperation; we worked directly with the owner’s vendors to ensure the rough-ins were up-to-date, because what was on the original contract drawings—which had been done a year prior—didn’t take into account the new equipment that was ultimately selected. To ensure nothing was missed, we created an equipment requirement matrix to manage these pieces and their specifications. It was through this Best Practice exercise that we discovered steel needed to be added to support one of the new pieces. Though it was more work upfront, everyone on the team

agreed that it saved an extraordinary amount of time when it came to close-out and punchlist, as well as avoiding rework.

As with every Haselden project, safety at AVH was a priority. Each person on site went through a Colorado Bureau of Investigation background check before coming onto the project. Twice a month, Haselden shut down the job to hold a site-wide safety meeting for the entire staff – including all field personal – to go over safety issues and ideas. The meetings were held in English and translated (in real time) into Spanish. In addition to the weekly safety walks conducted by the project's site safety manager, the project manager, superintendent, and project engineer also did a separate walk each week for the sole purpose of reviewing safety items. To further promote safety, the project manager created an atmosphere of empowerment and accountability for all management team members—including interns—allowing them to issue an official written subcontract violation if they witnessed a subcontractor not abiding by a safety rule. This reinforced on site that Haselden took safety very seriously and wouldn't let even small infractions pass.

Infection control is an obvious safety consideration when working at a healthcare facility. Because we were working on several different areas, there were technically several different levels of ICRA (Infection Control Risk Assessment) measurements required to be in place. In order to avoid confusion, and to ensure the highest level of safety possible, Haselden voluntarily committed to Class IV ICRA requirements throughout all areas of the project. We trained our subcontractors only in Class IV ICRA and all team members attended ICRA orientation, with an interpreter available for Spanish speakers.

With a total of 60,059 hours logged, this project had one lost time injury due to a team member slipping on a snow-covered hill and injuring his shoulder. However the extensive safety efforts on this project paid off for this team in the form of the coveted HEISA (Haselden Excellence in Safety Award).

This project elevated the level of medical care in Aspen from an aging 1970s facility to a cutting edge medical center that's now far more competitive with nearby Valley View Hospital. Aspen Valley Hospital takes pride in – even advertises on local public radio – that they have one of the lowest infection rates, including during construction. Haselden has been building there for over a decade, so we're proud to say that we are a part of that success. Haselden has truly become part

of the Aspen Valley Hospital family and offers a value that goes far beyond that of a typical general contractor. An incident that Facilities Director Steve Selby wrote to Haselden President Byron Haselden regarding during AVH Phase 3 sums up this relationship:

“I wanted to thank you again, and let you know what a stellar staff you have. Derek, David Calabrese, and David Hyde [Haselden team members] really went well above and beyond the call of duty over the weekend, so that hospital operations were not impacted by the glycol spill in the conference centers. This was not even a problem that was theirs to deal with. This should have been left for me. But as always, your staff jumped in and managed all of the work to ensure that we were open for business Tuesday morning @ 7am. They tagged out the electrical receptacles and made the area safe. Then replaced all of the saturated flooring, ceiling tile, and drywall in less than 72 hrs. I don't know how many hours that Derek worked before leaving when all of this started, but I know it was close to a week's worth over the weekend. David and David had all of the subcontractors lined up, and a schedule created, less than 8 hours after the spill. They all readily gave up what should have been a three day weekend. And they did it with a smile on their faces. I don't know how you do it. Their dedication to Haselden AND AVH is truly commendable.”









