Category: Meeting the Challenge of a Difficult Job – Specialty Contractor

Contractor: Douglass Colony Group

Project Name: The Coloradan

Though the city skyline is rapidly changing, Colorado's iconic Rocky Mountains will forever remain the same purple mountain majesties everyone knows and admires. However, as Denver continues to grow and towers reach towards the sky, that beloved mountain-view is becoming harder and harder to come by. Compromising between the city's need for new developments in the high rise sector and the people's desire to not lose site of the beautiful and iconic hues of the natural landscape, the Coloradan broke ground in early 2017 in the blossoming Union Station neighborhood.

Straying away from the typical brown, red, and tan tones that adorn many of the building facades in Denver, the architects on this project chose to honor the beautiful and famous Colorado mountain hues with a primarily purple and white exterior creating downtown's very own "purple mountain majesty." Selected by GE Johnson, Douglass Colony was honored to help bring this vision to life and take on 100% of the exterior skin of the building. With a grand total of 16,688 panels, Douglass installed all 60,000 square feet of the unique three-color terracotta system, the only of its kind in Denver, as well as aluminum Z-girts and mineral wool covering the entire exterior, 70,000 square feet of rain screen metal composite panels, and 20,000 square feet of brown box rib screen wall panels.

Built as the only for-sale development in the neighborhood, the 20-story Coloradan is comprised of 334 units ranging from studio condominiums to luxury pent houses and features amenities such as a 434-stall parking garage, 19,000 square feet of ground-floor retail, a rooftop pool deck, a fitness room, and gardens for residents.

Overcoming Obstacles

The Coloradan is located on what is called the "B Block," where it is extremely tightly nestled between RTD rail platforms and the bustling Wewatta Street. This made access to the site

complicated at best. Working practically on top of Union Station meant very restrictive boundaries dictated by FAA and RTD. All work had to be done from swing stages and scaffolding over the public walkways in order to maintain 100% public access throughout the entire project. Scaffolding was constructed over stairways and sidewalks, so pedestrians could safely commute about the RTD platforms, and with minimal perimeter access, the swing stages had to be landed top of the scaffolding at the end of the day or when tasks were completed.

The tight jobsite also demanded that special attention be given to stocking materials. The entire building had to be stocked form the interior with materials loaded into the parking garage levels and then hoisted to where they were needed. This was a complicated process. Materials were brought up to the storage levels in the skip jack, moved again as they were needed, passed out of windows into the swing stages or hoisted to their install points, and then installed. This was done for four to six levels at a time and required meticulous planning and up-front organizational skills.

Because of design and color variation, each individual panel had a specific location on the building. All 11,926 terracotta panels had to be delivered in the right size and color at the right time and sequenced correctly, so as they came up the elevator, through the window, and onto the building, they were being received in the correct order. Therefore, a great amount of pre-planning was done behind the scenes at the Douglass Colony shop in Commerce City, especially with the panels coming all the way from Germany requiring a 24-week (6 month) lead time. This kind of timeline left little-to-no room for error once the materials arrived in Commerce City and called for flawless execution of jobsite delivery and installation. Douglass Colony assigned an office staff person as a full-time stocking manager to the jobsite to make sure everything was completed without a hitch.

Similar to the incredibly tight jobsite, the time schedule outlined by the general contractor and owner was strict and aggressive. Douglass Colony had to work closely with the general contractor and other trades to accomplish it. Coordinating with the exterior bypass wall installers, Douglass worked in a spiral fashion up the building following close behind and wrapping the building in synchrony. The entire building was covered in swing stages with 20+ under operation at once to maximize efficiency and workflow. More than 40 crewmembers

worked onsite to install the sequenced layers of the system, each layer following closely behind the last.

Truly One-of-a-Kind

A terracotta panelized system is very rarely seen in the United States, hence the need to order the materials from NeaCera in Germany. It is a unique and very detailed installation system with several components made even more complicated by the variety of panel sizes and colors; this project did not have any “typically sized” panels. There were many panel sizes and color layouts with no real consistency in terms of size sequencing requiring hook tracks and z-girts of different sizes for install as well.

The panels were 100% custom made – they weren’t even a stock item at NeaCera who had to re-machine and make new dye-cutting systems for the custom hook track and panel sizes. Before the final three terracotta colors were chosen, upwards of 60 unique samples were sent and tested and retested for architect approval.

Because of the exclusivity of the materials and the long lead times, all panels were released based off of guaranteed dimensions. In other words, the panels were made and sized before the building had even broken ground. Therefore, the skin system had extremely tight tolerances. The bypass walls, on the other hand, did not. Reconciling the loose tolerances of the walls with the exact, inflexible tolerances of the panel system merited special care and attention to detail. Crews went through specialized training to learn proper installation with NeaCera.

Safety First

As with any project, safety was the top priority. However, when a project not only exposes its workers to the risks, but also the public, it demands extra special consideration. Douglass Colony assigned a full-time safety inspector to the project to enforce the exceptionally strict safety guidelines. Every day, crews tagged in and out of the swing stages, inspecting them in the morning to make sure they were operational and securing and locking them out at the end of the day. Each employee had to go through a site-specific safety training course and another

specifically speaking to swing stages and scaffolding. A complete swing stage plan was established and published before any work began.

Douglass Colony also designed and built custom hoisting materials specific to the project, as loading materials from the top down is a challenging and potentially risky task. The special hoists and backups were always present to ensure everything was done safety, eliminating any risk.

Also, the Colorado weather posed a safety risk and called for added caution. Severe winter weather plagued the crews on several occasions causing them to shut down or slow down and take added precautions. A few really big storms made continuing work impossible – it would be tremendously challenging, not to mention dangerous, to install heavy panels in a swing stage 12-stories in the air with 80 mile per hour winds tormenting the city.

Through all of these challenges, though, Douglass Colony is proud to have experienced ZERO lost time injuries on this daunting project.

Completing 100% of the exterior skin on such a massive building is no easy task, but through careful planning, constant teamwork, special attention to detail, and the dedication of talented crews, Douglass Colony experienced a great amount of success on the Coloradan. As Denver continues to grow and people continue to flock to it, there is now a stunning, unique housing option in the popular Union Station neighborhood, and Douglass Colony is proud to have had the opportunity to help shape Denver’s continuously evolving skyline.


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