

Project: Market Station

Category: 9 – Best Building Project – Specialty Contractor Non-MEP (Over \$2 Million)

Submitted By: Gallegos

In November 2015, a General Contractor we were working with on a hotel and office complex asked us to provide preconstruction assistance and establish a masonry budget on a new project for the owner. The job, at the time, was called 16th and Market Station, a mixed-use development encompassing 477,000 square feet. The buildings would contain 95,00 square feet of Class A office space, 85,000 square feet of ground floor retail space, 225 apartments for rent and 350 underground parking spots for tenants and for public use. It is in a storied historic area of Downtown Denver on the iconic 16th Street Mall and was replacing an underground bus barn and plaza. The project included three buildings ranging from five to ten stories in height and encompassed nearly a full city block, with the exception of the Regional Transportation District office building they kept as their headquarters and required us to carefully work around in very tight quarters. The building is a renovated 1860's structural brick building that some of our current employees worked on to recondition in 1983.

The site was the former bus terminal for the Regional Transportation District that had relocated its bus and Light Rail services to the re-developed Union Station in an area known locally as LoDo – Lower Downtown. Both Union Station and Market Station are in this revitalized neighborhood, within walking distance of Coors Field and the Pepsi Center, where the Colorado Rockies, Denver Nuggets and Colorado Avalanche play and Union Station where you can catch the Light Rail or a Commuter Rail to DEN, Denver's International Airport. A quick Light Rail trip will get you to Mile-High Stadium where the Denver Broncos play.

When construction started on the project, the team consisted of the Owner: Continuum Partners, Architect of Record: BOKA Powell, Design Architect: El Dorado, and Contractor: Kiewit Building Group. We were brought in as the mason to provide the brick work on the exterior of the buildings.

During Precon, Gallegos was asked to develop various patterns with several different brick colors for the owners and architects and for the Lower Downtown Design Review Board to approve. The architecture had to closely reflect the design of the brick facades in the LoDo area, some built in early 1860's with very intricate brick patterns. We also provided revised pricing for each of the patterns to keep the masonry estimate current. This process was a substantial undertaking as the design documents had six different brick colors and twelve separate patterns. The project has just over 700,000 brick on the skin of the building and by changing colors, patterns, and textures, the design was meant to give the appearance there were multiple buildings on each façade as opposed to one very large building. This broke the sheer size of the project into a visual palate that allows visitors to feel as though each storefront is a separate unit, reducing the scale to a more intimate setting.

Each mockup panel was eight feet high and twelve feet long so they could accurately display every facade. Patterns included Running Bond, Running Bond Rotated, Flemish Bond Textured face, Flemish Bond Smooth face, Flemish Bond Uniform Texture and Textured Running Bond. Initially, there were two additional patterns that were so visibly striking, they made several reviewer's look away from the panel as it made them feel ill. They were simply that hard to look at because of the color combinations.

Our Site Superintendent and Project Manager met for a couple months prior to the start of the brick work to perform a Pre-Job Plan and, as part of the process, they put both Quality Control and logistics plans in place. With so many brick patterns and the need for just in time deliveries, coordination of predecessor work, access to working areas and getting the right brick on site, was pivotal if we were going to be successful.

They had several meetings with the Contractor and city of Denver to make sure our plan was acceptable and that we wouldn't impact pedestrian and vehicle traffic at high usage times.

With most of the patterns being very technical, it was imperative that any windows, doors, or vents be plumb to each other and our brick pattern layout. We didn't have the option of 'opening or tightening joints' to keep bond. When we first started the brick, we did encounter predecessor work that needed to be resolved. After several site meetings, the other trades fully understood how imperative alignment was and the patterned brick installation went well.

For most of the brick patterns we had to run two lines; one for the in-plane brick, the second was to lay the out-of-plane brick. For the designs where we had a stretcher (full brick) and a batt (half brick) with the batt corbelled outside the wall line, we laid each course technically twice. We would lay the in-plane stretcher bricks and come back to lay the batts out-of-plane. Some of the patterns were consistent, the batts were corbelled out 2" consistently down the wall. Other patterns had the batts begin flush with the stretchers at one end of the wall and step out slowly until they reached a 2" corbel at the end of the wall. One of the more technical patterns had the batts start out flush on the bottom left side of the wall and corbel out in a left to right pattern but also in the bottom to top layout. This pattern was extremely difficult to accomplish as the bottom to top pattern had to be calculated by course so that when the wall was topped out, the brick batts were 2" out-of-plane.

On a pattern our crews called the fish scale where the left side of the brick was to the line and the right side corbelled out, we reached out to a company to make us templates out of poly board, a lightweight material strong enough to re-use, light enough not to cause fatigue. The masons held the template against the wall and pulled the right side of the brick into position.

We also needed to coordinate the different brick colored facades as we went around the building. We would lay the grey toned bricks with grey mortar first, followed by the white colored brick with white Portland cement and infill the dark brick with black mortar. Because the black mortar will stain everything our site superintendent determined it was best to install and protect the lighter brick while infilling the dark brick to avoid mortar stains.

Because there were so many corbelled bricks on the project, our masons and tenders would stop laying brick early so they could climb down the scaffold and take a small margin trowel to remove mortar that had been caught by the corbels nightly. This kept the cleaning process more manageable than trying to remove large clumps of mortar that had set.

The completed brickwork blends in very well with the 1860's Boom Period Architecture consisting of Neo-Classical, Chicago and Art Deco styles. The area contains numerous noteworthy illustrations of masonry craftsmanship of late 1800's Denver Brick and Stonemasons. Examples include the Denver City Railway Company building (Denver's first mass transit terminus building), Wazee Supper Club (a saloon), the Oxford Hotel and the Denver Dry building (at the time the largest department store west of Chicago). Gallegos is proud to add 21st century masonry craftsmanship to a centuries old, historically brick area of Downtown Denver.

David Little
Chief Business Development Officer
970-471-1448









