

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

Contractor: Metropolitan Glass, Inc.

Project Name: Market Station in Downtown Denver

### **A Showcase of Retail, Office and Residential Living in the Heart of the City**

Market Station is a 370,000 sf expertly-planned urban development by Continuum Partners, and bounded by 16th and 17th streets and Market and Blake streets in Denver. The development includes 82,000 sf of retail shopping space, 95,000 sf of office space, 320 mechanically-stacked parking spaces and 225 residences that consist of studio, 1- and 2-bedroom units.

Designed by BOKA Powell and El Dorado Inc. as a luxury oasis fully immersed in downtown verve, Market Station is equipped with a full-service valet parking garage and state-of-the-art underground mechanical car stacker system, a charming pedestrian walkway and abundant shops and restaurants that are sure to be full when citizens are able to safely gather once again.

To meet the challenges of this \$100 million project, general contractor Kiewit Construction chose an expert team of specialty contractors, including Metropolitan Glass Inc. (MGI), with the qualifications and experience to bring this urban oasis to life. MGI's team was well-prepared for the vulnerabilities of working in a thriving downtown area, as well as the glazing challenges ever-present with this type of project. And, the team quickly learned to change-course and adapt for a worldwide pandemic.

### **Innovative Solutions to Combine Varied Window Systems and an Existing Structure into One Project**

Market Station included a combination of commercial storefront curtain wall and residential windows; therefore, the project also required two different types of window systems designed to allow for building movement or shrinkage. The total of nearly 1,200 pre-glazed windows for all buildings included: the 10-story Building 1, with the first five floors designated for retail/restaurant and office space, and the remaining floors planned for high-end residential apartments; and, Building 2, a five-story building dedicated to residential apartment living.

The commercial building portion of the project was comprised of a conventional concrete structure with curtain wall, which offered very limited access for crews. Additionally, the wall would be built with 120 commercial curtain wall frames. The MGI team prefabricated the curtain wall to solve the size and small onsite work area challenges, and utilized Spider staging with a custom gantry.

“At one point during construction, the custom Spider swing stage was erected to glaze the almost hidden curtainwall in the Paseo [plaza] area. The limited access area presented a challenge that the Spider stage handled without issue,” said MGI Senior Vice President Curtis Thomas.

The sheer fact that Market Station was constructed around an existing structure – the RTD headquarters building, which remained occupied for business operations throughout construction – presented an additional set of challenges to this project. The staging of materials was a challenge as no overhead crane work was allowed over the RTD building – multiple cranes with multiple drop zones were used to prevent hoisting over the RTD facility.

The MGI team accomplished this feat by closely coordinating with the contractor and the subcontractors to plan lane closures for the on-time delivery trucks to carefully orchestrate the loads around the RTD building, using 2-way radios and hand signals.

### **A Worldwide Pandemic Adds New Obstacles for MGI to Overcome**

As with nearly all construction projects completed during 2020, COVID-19 caused project delays, significant revisions to schedules, reviews of – and changes to – safety protocols, and anxiety among all project team members.

Above all, MGI maintained its commitment to safety of all project team members. As Market Station construction was in full swing earlier this year, an MGI crew member became “presumptive positive” for COVID-19. MGI’s construction leaders immediately implemented the COVID safety plan, communicating the news to other crews, and requiring the entire glazing crew to quarantine for 10 days. Also, social distancing requirements were in place throughout much of this project, which meant less team members on site each day. The crew member in

question was tested and later received negative results, so there were zero positive COVID-19 tests for MGI's team on this project.

MGI's team closely monitored and quickly changed, as needed, crew schedules, construction techniques (on site vs off-site) and schedules to mitigate project delays, while maintaining safety requirements.

### **Additional Safety Measures in Place for this High-profile Downtown Build**

Considering the project's location in a bustling downtown environment, MGI added additional safety protocols onto the team's already rigid safety program. For the Market Station project, the construction team used spotters for pedestrian and traffic safety precautions. All heavy products and tools were used with controlled access zones in place, reducing the risk of injury for passers-by. Crews also had to be specifically trained for platforms they were utilizing for this job.

The Market Station project required working on the leading edge, so tie-off points were a challenge. To work on edges, MGI's team consulted with the crew's safety manager to identify the closest, and safest, point to tie-off from. The team also used horizontal lifelines.

As with many large downtown projects, Market Station involved sending crews up multiple levels onto the exterior of a building. Weather challenges were ever-present. Crews watched for lightening threats and if any lightening was detected within a 10-mile radius, crews had to postpone exterior building work. Any cold, rainy or snowy days posed typical safety challenges for workers, but also posed quality issues for the glass installation. Watertight seals on the glass and frame were critical to prevent mold-related environmental issues. To maintain human, machine and material safety during extreme cold weather, as well as ensure a quality seal on the glass, the MGI team planned the morning work for inside the building and all motorized equipment was stored indoors when not in use, to keep it in good working condition.

The MGI team completed Market Station in 33,000 hours and with zero lost-time accidents. The developer, general contractor, architect and tenants are extremely pleased with the finished project.









