

## **Adolfson & Peterson Construction**

### **CoBank Center**

#### **CATEGORY 11: Best Building Project – General Contractor (Over \$70 Million)**

##### **OVERVIEW:**

The largest bank headquartered in Colorado now has an impressive building in a highly visible location. I-25 travelers can't miss the new elegantly designed Class A, build-to-suit office complex in Greenwood Village near Fiddler's Green Amphitheatre. The 296,000 sf, 11-story office building with an attached 6-level precast parking structure that accommodates 950 cars is a showcase facility for Colorado workers. The graceful trapezoid shape of the building offers highly efficient interior spaces for offices and open workstations. The building is oriented to present an impressive image and also provides stunning panoramic views to the mountains visible to the north, west and south.

With an aggressive 17-month schedule, two architects to manage, more than 996 loads of precast concrete delivered – some weighing as much as 32 tons – and a sanitary sewer installation down the middle of South Fiddlers Green Parkway during concert season, the CoBank Center project was not without its challenges. The project team overcame these challenges by focusing on collaboration and always keeping the end goal in mind – to deliver a world-class facility that exceeded the owner and end-user's expectations.

##### **SOLUTIONS OF SPECIAL PROJECTS:**

Delivering an almost fully built-out office building with an attached parking garage within 17 months required a fully-engaged and highly collaborative team that confronted the following challenges head-on:

**Floor Phasing Allowing for Early Occupancy.** CoBank had a mission-critical data center on the 5th floor, which impacted the sequencing order of the tenant improvement work that would normally proceed from the first floor up. The team worked with the Authorities Having

Jurisdiction (AHJs) to alter the phasing and permitting to allow for early occupancy of floors in the order CoBank required. This allowed CoBank to have more flexibility in getting critical spaces turned over earlier and allowed for an earlier occupancy than otherwise would have been possible.

**Working Around a Busy Concert Calendar.** During the summer concert season, the team ran 400 feet of sanitary sewer piping down the center of Fiddler's Green Circle at depths of up to 18 feet and adjacent to the fiber optic cables that feed the entire Denver Tech Center. The team found a 12-day gap in the concert calendar and executed the work perfectly, thereby limiting disruptions for the public.

**Staying on Schedule Despite Challenging Weather.** With a majority of the structural work happening over winter months, precast was selected as the structural system because it is not impacted as much by weather. This allowed deliveries and construction to continue on all but the worst winter days. Despite one of the wettest April and May on record in 2015, the team had no delay in the schedule.

**Achieving Stair and Hoist-Way Pressurization.** We were the first builder to achieve the code for pressurization required by Greenwood Village without the need for a separate elevator vestibule according to South Metro Fire Rescue Authority. Other surrounding cities have adopted code modifications, which cut the pressurization requirements in half in order to relax the standards for other builders. Achieving the code set a new bar for construction in the Denver Tech Center.

## **EXCELLENCE IN PROJECT EXECUTION AND MANAGEMENT/TEAM**

### **APPROACH:**

**Managing Two Design Teams.** The developer, Shea Properties, hired Davis Partnership to provide the design for the core/shell building, while RNL Design was engaged by CoBank for the Tenant Improvement portion. As CM/GC, we coordinated efforts between the design teams by engaging early and often through dual weekly OAC meetings for core/shell and tenant improvements. Early selection of key subcontractors allowed important decisions that involved

input from both designers to be pushed to the fore. Success was gained from a high-performing team with an engaged and informed owner which aided in quick decision-making.

**Consistent Focus on Quality.** Shea Properties, the Owner's Rep and CoBank all set quality standards early for the project and we worked with our partners to exceed those expectations. This effort began in the preconstruction phase where the team employed thoughtful value engineering to bring the core/shell portion into budget. Instrumental to this exercise was the early selection of key subcontractors for MEP and structure to act in a design-assist capacity. Our team worked with Shea to select these firms under a best value process, which focused on finding the correct quality-focused partners to deliver effective solutions.

One solution that hugely benefited the project quality, budget and schedule was the decision to prefabricate many scopes of work off-site and deliver the material on a just-in-time basis for install. Precast concrete, ribbon windows, ductwork, electrical systems and plumbing rough-in were all prefabricated, which allowed for quality inspections and testing before they arrived on-site. The team also created mock-ups for architectural and owner sign-off before completing spaces within the building. Housekeep was also prioritized. Cleanup and stocking were completed after hours to ensure a productive and safe work environment.

Our team's robust QA/QC process involved continuous inspections and included weekly site walks with both architects, as well as maintaining deficiency logs (with photos) on tablets that uploaded immediately to the cloud for quick resolution. In addition, a lengthy commissioning period with third-party inspectors allowed for the end-users to walk the building continuously throughout construction and learn the systems. The continuous focus on quality dramatically cut down on rework and allowed the team to deliver the facility on time and on budget.

#### **CONSTRUCTION INNOVATIONS/STATE-OF-THE-ART ADVANCEMENT:**

**Innovating for Seamless Construction.** Our team, along with our subcontracting partners, looked for innovative solutions to create a high-functioning building and streamline construction. Some innovations included:

- A truly paperless jobsite with the integration of tablets with cloud-based access to construction documents.
- Real-time estimating throughout preconstruction to quickly identify solutions and budget impacts to encourage a “draw once, build once” mentality.
- Best Value Process for selecting key subcontracting partners early and ensuring that they were completely engaged with the design teams to find and implement effective solutions.
- Integration of our Lean Construction, Safety and Quality Control teams for immediate adoption of new ideas and processes.
- Incorporation of high efficiency systems to secure LEED Silver certification for the core/shell building.
- Specialized materials specific for the site, including high-performance glazing on the I-25 side of the building to cut down on interstate traffic noise, and a custom sound and thermally insulated precast panel wall for the separation between the office and integrated parking garage.

**LEED and Sustainability.** Located directly adjacent to Arapahoe Station on RTD’s Southeast Corridor Light Rail, the CoBank Center project was designed to achieve LEED Silver Certification. Sustainable features include:

- |   |                                   |
|---|-----------------------------------|
| • Easy access to Light Rail and public transportation | • Ample daylighting               |
| • Bicycle storage                                     | • Low flow plumbing fixtures      |
| • Multiple vehicle charging stations                  | • Outdoor air delivery monitoring |
| • Motion sensor lighting                              | • High efficiency glazing         |
|   | • Enhanced commissioning program  |

**ENVIRONMENTAL/SAFETY:**

**Focus On Safety.** Workers logged 517,213 total hours on the CoBank project with zero lost time accidents. Unique to this project, and a best practice for our jobs going forward, was a daily safety organization meeting held every morning with our staff and site foreman to provide timely information on specific site hazards. This was in addition to project-specific safety orientations

for anyone new to the site, monthly all-hands safety meetings and weekly safety audits. All safety training courses were open to all subcontractors.

Due to the complexity of construction, at one point three cranes were on-site – two to place precast pieces and one placing concrete forms. The cranes created an additional safety challenge and it was required that all crew be certified through a rigging course and be trained in crane safety.

Additional safety and security practices employed on-site included:

- Hard hat stickers for the easy identification of all personnel
- Tie-down of all materials to prevent debris from blowing onto the nearby light rail tracks and I-25
- Engagement with our lean construction and safety teams, who conducted full audits of the site and made recommendations for immediate adoption

#### **EXCELLENCE IN CLIENT SERVICE AND/OR CONTRIBUTION TO COMMUNITY:**

**Satisfied Clients Leading to Additional Work.** In a reflection of how successful the project was perceived by the end-user, our team has been chosen to provide continuous maintenance on-site by CoBank and is currently completing TI work on the 11th floor of the building. In addition, Shea Properties has chosen our firm to construct another office tower adjacent to the CoBank building to complete the development of the Village Center Station property.

**Pedestrian-Friendly Oasis.** The prominence of the CoBank Center with its distinctive shape visible from the I-25 corridor makes it a striking addition to the Denver Tech Center area. The building's proximity to the light rail station and park-n-ride bus station highlights the need for the pedestrian-friendly plaza, which lends a dramatic lead-up to the main entrance. Incorporating two fountains, with one timed to "dance" in time to music from embedded speakers, the plaza creates a destination experience that will only be heightened by the completion of the third office tower that we will be starting soon with Shea in the nearby open field between the plaza and I-25. In time, the plaza will become the new heart of the area, offering a fantastic benefit to the surrounding community.









