
Category: 10 – Best Building Project – GC (\$40M - \$70M)

Contractor: Swinerton Builders

Project Name: Gables Cherry Creek Apartment Community

Denver's Cherry Creek neighborhood is undergoing a revitalization: since 2013 more than 600 apartments, 500 hotel rooms, 351,000 square feet of office and 194,000 square feet of retail spaces have been developed, with more projects expected during Denver's current construction boom. As the skyline of this upscale area continues to evolve, one project has led the way in *making the community more walkable and better connected to one of Denver's most active attractions – the Cherry Creek Trail.*

Built by Swinerton Builders, Gables Cherry Creek is an eight-story luxury apartment community offering 289 units with high-end features and amenities. This project resides in an area identified as the “Cherry Creek Triangle” according to the City's official area plan. In 2012, updates to the Cherry Creek Area Plan called for enhancing the existing neighborhood by encouraging mixed-use areas and a pedestrian-friendly environment. The plan identified the “Cherry Creek Triangle” as an under-utilized area in need of improvement. Recommended improvements included ones that contribute to the neighborhood's pedestrian offerings with wide tree lawns, detached sidewalks, street trees and better access to the Cherry Creek Trail, one of the busiest urban trails in Colorado totaling 22 miles. *Understanding Coloradans' love for outdoor activities, the site of Gables Cherry Creek became front and center for these enhancements and today boasts a Walk Score of 82 which ranks the project as Very Walkable.*

Engineering Luxury

The owner/architect/contractor team consisted of firms local to Denver and others outside of Colorado. While not unusual, the situation provided the opportunity for on-site collaboration to ensure that the structural integrity of the building's lower floors remained intact during concrete placement for the top floor which added significantly more weight to the structure than the lower floors. Texas-based structural engineer SCA Consulting Engineers worked on site in preparation

for and during the eighth-level concrete placements to coordinate pour break locations, examine temporary re-shoring, and oversee the structural integrity of the lower floors during construction of the eighth level.

The rooftop amenity level features a 2,500-cubic-foot saltwater pool, hot tub, and pool deck with lounge space for residents. A network of post-tension concrete beams supports the 4-foot-deep pool which holds 18,700 gallons of water. The 500 yards of concrete placed for the eighth-level deck weigh 1.2-million pounds and contain 14,000 linear feet of cable. A series of 4”x4” floor-to-floor temporary re-shores on each floor below the eighth level dispersed this weight during construction to ensure structural integrity.

An over-arching challenge facing Swinerton and design partners Ziegler Cooper Architects and Semple Brown Design centered on the developers’ speed to market needs. Swinerton advocated for clients SmithJones Partners and Gables Residential during preconstruction to protect their development and pro forma goals. Swinerton used the BIM model to tally accurate concrete take-offs due to the building’s irregular footprint and radius gridlines.

“Swinerton has been a tremendous value add to our collaborative team. They provided incredible feedback in constructability reviews to make the project more cost effective while maintaining the design intent.” Bobby Smith, SmithJones Partners

Near project completion, Swinerton worked proactively with authorities having jurisdiction to meet building code policies for phased turnover and occupancy, enabling tenants to move in and producing cash flow for the owners. These activities included testing and certification of all life safety systems; completion of fire separation walls, building corridors and stairwells with functional doors; lighting, signage and emergency communication systems in place; and segregation of residents from construction personnel and equipment.

One Building - Three Structures

The project’s sleek structural design, inclusive of angles, curves, and unstacked balconies, required integration of three post-tension structures coming together to form a cohesive

eight-level building. To facilitate logistics, schedule progression, and provide a safe working environment, Swinerton started the residential and amenity wing structure first with a footprint of 30,000 SF, followed by the parking structure with 25,000 SF floor plates. The third structure erected was the wrap around the parking structure; it contains apartments and the pool deck with 30,000 SF floor plates.

Swinerton staggered the start of these three post-tension structures at three-floor intervals to maintain safety and to provide safe access zones for cranes to fly in materials. Robotic total stations verified layout of the horizontal decks and eliminated core drilling requirements for plumbing equipment. Robotic stations also validated expansion joint locations on eight levels between the three structures to unify it as one building and ensured the proper slope ratio of parking structure ramps where they meet the residential deck floors for a safe living environment.

While the wrap design reduced facade cladding cost on the parking structure, further value engineering focused on the building's exteriors exposed to the public. ***By evaluating the mix of materials while maintaining design intent, Swinerton proposed approximately \$3 million in value engineering options.***

Technology Focused on Quality

One of the largest quality concerns in multifamily projects is water intrusion, and the team used the BIM model to coordinate transitions and details in the exterior envelope assembly to ensure a tight building envelope. Two 30-foot physical mock-ups fine tuned the stone, stucco and waterproofing configuration to prevent water intrusion. Swinerton conducted pre-install meetings with the exterior envelope subcontractors to finalize transitions and details in the assembly. The client hired a third-party envelope consultant to pressure test the exteriors, waterproofing systems, pool and hot tub - and all systems passed their initial and final inspections!

The BIM model served as the collaboration tool for interstitial ceiling space between the ceiling framing to the underside of the concrete deck. With a typical deck-to-deck height of 9'6" and 8'4"

ceilings between, only 12” of interstitial space remained. Since all doors are 8’0” tall surrounded by a 3.5” trim, no tolerance existed for the 8’4” ceilings. ***Due to the meticulous planning BIM facilitated, no ceilings had to be lowered, a move which maintained design intent, quality and budget.***

Understanding that the rooftop amenity level would be a popular feature to attract tenants, Swinerton used BIM to model and verify installation of pool and spa piping from the rooftop pool, through the building and parking structure, and between levels to the pool equipment room. This modeling effort aids maintenance operations with accurate as-built documents. A mainstay of every Swinerton site, the on-site electronic plans table provided easy access to all project participants to remain up to date on the BIM model, RFI documentation, and submittals.

Being a Good and Safe Neighbor in Cherry Creek

Swinerton and its subcontractors conducted more than 12,300 Job Hazard Analysis throughout the course of construction and ended the project with one lost-time incident in 574,000 man-hours. This accomplishment is a direct result of a comprehensive site safety plan, thoughtful planning, and diligent follow through for the 250+ craft workers who contributed to this project. After this safety incident which involved a subcontractor working on stilts, Swinerton’s safety and project team developed a tilt safety checklist which every worker on stilts reviews before the day’s work to eliminate future incidents.

The 2.5-acre site had housed a 6-story precast office building before Swinerton mobilized onsite. After asbestos abatement, Swinerton offered the building to the Denver Fire Department for firefighter training. Firemen used the abandoned building to train on fire and rescue situations in the urban environment. Once the firemen completed their training, Swinerton continued with building demolition and recycled concrete, steel, copper and other metals. These initial recycling efforts and use of sustainable building means and methods have resulted in the project achieving Silver Certification by the National Green Building Standard, a program similar to LEED but focused on residential communities.

Community Ambassador

While the site was zoned for a 12-story building, the developers purposely decided to create a community no higher than eight stories to respond to the neighborhood's wishes. Today, this site is home to one of Denver's newest luxury multifamily communities, with apartment sizes larger than similar developments and amenities galore.

"One of my special memories of this project is walking the site every Saturday with Swinerton's two superintendents. It was a great time to visit the project without the hustle of construction activities and take everything in." Bobby Smith, SmithJones Partners

The Cherry Creek Triangle, which is where Gables Cherry Creek resides, supports nearly 2,000 jobs and over 300 households. Highly traveled arterial streets bound this pocket neighborhood yet this area is not easily accessible for vehicles and pedestrians. Restricted access makes it challenging for people living and working in Cherry Creek Triangle to access the Cherry Creek Trail which leads to miles and acres of recreation opportunities. Now, through the development of sidewalks and access to the Cherry Creek Trail, Gables Cherry Creek helps foster neighborhood connectivity opportunities identified in the Cherry Creek Area Plan. Installation of sidewalks and a pocket park connecting to the trail open up a world of exploration on foot or bike for residents and visitors to the Cherry Creek area.

Several elements of thoughtful design come together to create a beautiful building in Cherry Creek, but the most memorable aspect of Gables Cherry Creek is what it brings to the community. Creating connectivity in a neighborhood, and then linking that neighborhood to the larger environment benefits many.



Gables Cherry Creek is a 289-unit luxury apartment community that connects the Cherry Creek neighborhood to the 22-mile Cherry Creek Trail. The rooftop of the eight-story building offers a saltwater pool, hot tub and lounge areas, with amazing views of Denver.



Value engineering efforts focused on the facade material mix to ensure the pro forma yet remained conscientious about meeting design intent. The interior appointments provide an upscale Colorado aesthetic for the lobby and common areas.



With a wrap-style design, the residential and amenity areas wrap around an eight-story parking structure. The Swinerton team takes in the views from the tower crane that future residents will enjoy.



Even though the site was zoned for 12 stories, developers SmithJones Partners and Gables Residential purposely decided to create a community no higher than eight stories to respond to the neighborhood's wishes for upscale living with contextual and thoughtful design.



Gables Cherry Creek contributes to the Cherry Creek Area Plan by enhancing connectivity to the Cherry Creek Trail, and improves the pedestrian-friendly environment with street trees and detached sidewalks to improve walkability.