

REVERB – 1800 Walnut

Kansas City, Missouri



STORIES BUILT



REVERB is a distinctive 14-story apartment building in one of Kansas City, Mo.'s fastest-growing neighborhoods, the Crossroads Arts District. Eleven residential levels sit atop a two-story, above-ground parking garage. The building features a top-floor social lounge and 2,000 square feet of retail and commercial space at ground level. Close proximity to restaurants, breweries and the streetcar line makes it an attractive option for young professionals.



Ceco provided structural design and turnkey frame services (excluding foundations), taking the project from conceptual drawings to a complete design-build package. A one-way post-tensioned (PT) flat plate system was selected to reduce clear story heights and create a flat ceiling for the apartments. Other structural elements include a C-shaped stairway, one elevator core and two straight shear walls.

The structural system includes 8-inch-thick PT slabs at the two garage levels and 8-inch-thick PT slabs for the 11 residential levels.

The PT cantilever slabs are 10 inches thick, which protrude at staggered lengths on the west side of the building. At levels 6 and 7, the slab is cantilevered 4 feet. Levels 8, 9 and 13 slabs are cantilevered 9 feet. Levels 10-12 are cantilevered 12 feet, and Level 14 is cantilevered 9 feet.

Construction began January 2019. The typical floor was completed in a nine-day cycle. For each floor, the crew performed a single pour of roughly 12,000 square feet. On pour day, the crew set and placed 15 columns and a shear wall, pouring the columns the same day as the deck. This allowed stressing to take place the day after the deck pour. Vertical concrete was poured out in three days.

Formwork systems used include the Ceco HV system for garage decks, then Ceco trusses for residential levels and Ceco gang forms for the walls. Because the project site was small, the Ceco team assembled the truss panels in eight-foot sections in Ceco's yard, shipped them to the site and installed them on the truss chords. Symons Steel-Ply forms were used for the columns, to achieve the design team's vision for an industrial look.

This is Ceco Kansas City's fourth design-build project utilizing Steve Bowman with BoTek Design Build Services, based in St. Louis.

FAST STATS

Project Owner: 18th & Walnut Partners

Developer: Copaken Brooks

Contractor: Burns & McDonnell Engineering Co.

Engineer: Burns & McDonnell Engineering Co.

Ceco Scope: Design-build concrete frame

Ceco Project Manager: John Horine

Ceco Superintendent: Fred Davis

Date Completed: March 2020