HUB2 (Hub Champaign Daniel)

Champaign, Illinois

STORIES **BUILT**

Filling a need for additional student housing and university office space, HUB2 is conveniently located one block from the main campus of University of Illinois at Urbana-Champaign (UIUC). Now called Hub Champaign Daniel, the 13-level mixed-use building with partial basement also offers parking, ground-floor retail space, a rooftop pool, fitness center and yoga studio, coworking space and other upscale amenities designed to provide student-tenants with a balanced lifestyle.

Ceco provided deck formwork services for this project. The building's post-tensioned (PT) flat plate concrete structural system was selected to accommodate longer slab spans and minimize floor-to-floor heights, resulting in more flexibility in room arrangements and reduced costs for vertical components, such as the perimeter skin. The flat plat PT slabs also enabled an exposed concrete ceiling in the apartment and office units, which saved the project owner money on finish costs and construction time.

Prior to construction, Ceco worked with general contractor (GC) J.H. Findorff & Son to develop a nine-day construction cycle for each level, detailing the major work operations, durations and sequences to achieve schedule goals. (The lower levels measure 33,000 square feet while the upper levels are 26,000 square feet.) To expedite work, the construction team used two tower cranes and two placing booms with masts. J.H. Findorff directed strategic overtime that enabled the Ceco team to accelerate several levels into eight-day floor cycles.

CHALLENGES

As part of the construction process, the GC formed the main concrete core walls and the Ceco team formed interior decks using Ceco's in-house HV framing and CEFCO perimeter tables for the perimeter decks. The PT slabs were placed via two pours per floor, with PT cables in each slab typically tensioned within 24 hours of concrete placement. However, a select area of post-tensioning in Pour 1 could not be stressed until Pour 2 was placed, which threatened delays in the sequence of work. By revising the work sequence and supplying additional formwork at the affected Pour 1 slab areas, the Ceco team was able to keep the project on schedule.

Another hurdle was the structure's proximity to the university's bookstore, which required flying perimeter formwork from select sides of the project to avoid potential dangers to the students below. The Ceco team used the EFCO high-load shoring scaffold to create formwork standing over 20 feet tall at numerous grade elevations in the loading dock area. The project team also replaced the bookstore's loading dock with a new loading dock located within the HUB2 structure. This work had to be sequenced so as not to disrupt ongoing bookstore deliveries.

Ceco completed work January 2021. The project delivers 241 student apartments and office space in an opportune location just steps away from campus and the UIUC quad while adding to Champaign's growing skyline.

FAST STATS

Project Owner: Core Spaces
General Contractor: J.H. Findorff and Son Inc.
Designer/Architect: Antunovich Associates
Structural Engineer: Pierce Engineers Inc.
Ceco Scope: Deck formwork services
Ceco Project Manager: Matt Minor
Ceco Superintendent: Francis Hires
Ceco Engineer: Clayton Schmidt
Date Completed: January 2021