

Belmont Village Senior Living - Lincoln Park

700 W. Fullerton, Chicago



With more than 30 assisted-living and memory care facilities across the country, Belmont Village Senior Living provides best-in-class care and programming to help residents lead engaging, purposeful lives. In 2018, Belmont Village expanded into Chicago's Lincoln Park neighborhood to serve the area's growing senior living needs. The newly constructed, LEED Gold-certified building echoes the look and feel of the area, with a brick exterior that replicates the 1930s architecture of the former Nellie Black building that previously occupied the site.

Work began on the seven-story structure in December 2017, with Tribco providing the complete cast-in-place concrete frame. Tribco's scope of work included tower crane hoisting as well as supplying and installing 7,200 cubic yards of concrete, 400 tons of rebar and 137,000 pounds of post-tensioning cables. The formwork systems used were Doka Frami for walls and columns and the Ceco-owned HV forming system for decks.

The building is a flat-plate post-tensioned (PT) concrete slab structure with shear walls that is stacked on top of a two-level, mild steel-reinforced underground parking garage. The concrete structural system was selected because flat-plate PT slabs provide many advantages for mid-rise residential structures, such as speed of construction, reduced story heights and absence of beams for constructability. Additionally, the one-way mild steel-reinforced underground parking design eliminated the need for PT delay strips and tensioning block outs during construction.

CONCRETE STRUCTURAL SYSTEM

Double-story underground parking garages require a high level of coordination. Due to logistical challenges, concrete pumping was not feasible; therefore, the Tribco crew used the tower crane and three-yard

concrete buckets on every concrete deck pour. Tribco also leveraged BIM to coordinate several design challenges, such as congested PT and embed conflicts, to ensure slab pours proceeded in a timely fashion.

The subterranean garage was excavated and braced with a sheet piling earth retention system, which was reinforced with cross-lot braces. The Tribco team constructed the foundations and basement levels around the temporary earth retention system. Once the team reached grade, the bracing was removed while Tribco took the tower structure upward. The concrete structure below grade then acted as the earth retention diaphragm, supporting the perimeter earth underground.

Tribco completed work on Belmont Village Lincoln Park in August 2018; the facility's grand opening was July 2019. The project is part of Lincoln Common, a mixed-used development on the former site of Children's Memorial Hospital that is bringing new residential, retail, dining and fitness experiences to the area.

FAST STATS

Project Owner: Belmont Village Senior Living

General Contractor: W.E. O'Neil

Designer/Architect: Antunovich Associates

Structural Engineer: CS Associates

Tribco Scope: Complete concrete frame

Tribco Project Manager: Paul Henke

Tribco Superintendent: Jimmy Uniejewski

Date Completed: June 2018