

The Boston Globe

WEDNESDAY, OCTOBER 30, 2019



PHOTOS BY DAVID L. RYAN/GLOBE STAFF

The Winthrop Center project is now nearing the end of its foundation phase. Ultimately, a tower will rise to a height of 691 feet, about 100 feet shorter than 200 Clarendon (formerly Hancock Tower).

Digging deep now, to soar later

This is the second installment in an occasional series on the construction of Winthrop Center, a 691-foot-tall office and condominium tower being built on the site where the Winthrop Square garage once stood. The \$1.35 billion project, when completed, will be the city's fourth-tallest building.

By Max Jungreis
GLOBE CORRESPONDENT

It's the wee hours in Quebec, and an 18-wheel truck loaded with a massive steel support fires up its engine. The driver needs to cross the border into the United States just as dawn breaks, because federal law requires that

Winthrop Center construction timetable



such massive shipments take place only during daylight hours. Then he has to navigate the hundreds of miles to Boston and arrive at a time when the roads are, hopefully, not clogged by commuters.

Once it reaches the city, the 25-ton support will be assembled outside of downtown, a process that can last into the night. Then it will be put back on a truck for a short trip to the Financial District — the precise time dictated by commuter traffic and MBTA bus schedules — before finally being dropped off at a cramped, T-shaped lot between

‘Every site provides a unique set of challenges, and we have that here.’

JOHN NEWHALL,
Suffolk
Construction

high-rises on Devonshire Street, to become part of the Winthrop Center. This scene is just one of the high-stakes logistical dances that developers contend with daily as they build the skyscraper.

‘Every site provides a unique set of challenges,’ said John Newhall of Suffolk Construction, the project’s general contractor, “and we have that here.”

The building will feature two connected glass-and-concrete spires atop a long, airy “connector” lobby designed to be a

TOWER, Page B9

Digging deep now to soar later

► TOWER

Continued from Page B6

public meeting place and appealing pathway between Downtown Crossing and South Station.

The structure will meet a LEED Platinum standard of energy efficiency and sustainability, a certification that denotes an environmentally conscious design. The office portion alone will become the world's largest space with a so-called Passive House rating, meaning it will use less energy and emit vastly fewer carbon emissions than similarly sized structures. The structure will be clad with triple-glazed windows to seal off the internal environment, helping create the precise temperature control necessary to achieve the standard.

"It's unusual to do in the commercial office sector," said Kathy MacNeil of Millenium Partners, the project's developer. "A lot of universities and dormitories are Passive House. But we were challenged because we want to have great views."

Building something this ambitious in the heart of downtown has required the builders to take extraordinary steps to avoid disrupting the flow of daily life, including the weekday comings and goings of thousands of Financial District workers.

Before they could even begin to lay the foundations, workers in 2017 had to test the soil underneath the site. The problem was that the old Winthrop Square garage still occupied the lot. Rather than demolish the crumbling structure



DAVID L. RYAN/GLOBE STAFF

The development will rise on the site of a city-owned parking garage that was torn down.

— adding time to a testing process that already takes months — they elected to take the unusual step of reinforcing the building and hoisting a drill rig onto its roof. They drilled straight down several times through the building's four levels, floor slabs and all, to reach the soil below.

"Got a lot of smiles from people when you were trying to pull permits for it," Newhall recalled.

When the time came to take down the garage, Suffolk decided not to deal with the hassle of razing it and trucking the remains out of the city. Instead, the company smashed the garage to bits, pulverizing it into pieces that were six inches or less. Fill was brought in to create a flatter surface for the machines that now tower over the site, mixing with the detritus to create a slurry of gray mud that this time of year seemingly coats everything at the site, caking on clothing, windows, and vehicle treads.

The project is now nearing the end of its foundation phase. Workers are digging trenches that range from 80 feet to more than 170 feet deep. They'll ac-

commodate the foundation of the building's outer wall. Up to 35 trucks visit the site daily to remove the hundreds of cubic yards of dirt displaced by the excavation. Yet another dance happens as the diggers navigate the tight space with other teams already working on the project's next phase.

"We try to share space and work around each other," said Ann Marie Long, who operates digging equipment. "So while one team is excavating, the other team is pouring and filling the foundation."

Soon, a huge concrete floor slab will be poured over a giant metal cage built from the supports trucked in from Canada. After that, workers will excavate underneath the slab to construct the basement, even as they build the first few floors above. It's a timesaving method called up-down construction.

"That's pretty much it," Long said of the project's current phase. "We dig a hole and we fill it."

Max Jungreis can be reached at max.jungreis@globe.com. Follow him on Twitter @MaxJungreis.