



Press Release

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Skanska Celebrates Completion of Empire State Building 102nd Floor Observatory Renovation

NEW YORK – On Saturday, October 12, Skanska joined Empire State Realty Trust in celebrating the opening of the renovated Empire State Building 102nd Floor Observation Deck. Skanska served as construction manager for the \$165 million renovation as part of a larger top-to-bottom effort to redesign the landmark’s Observatory experience.

The centerpiece of the 102nd Floor renovation was replacing the old windows – which stopped at waist level – with 360-degree floor-to-ceiling windows offering unobstructed, panoramic views of the city. To complete this complex renovation without disrupting normal building operations – including access to the 86th Floor Observatory from 8am to 2am every day – Skanska employed an innovative “cocoon” enclosure system modeled after one first used by Skanska on a previous project to reinforce the building’s mast and broadcast tower.

“Having the opportunity to work with Empire State Realty Trust to improve the most iconic building in New York and perhaps the world is a unique and humbling experience for all of us at Skanska,” said Kevin Kontura, Vice President for Skanska Building. “Working in such extreme conditions – 1,250 feet off the ground – is no easy feat but it also challenges us to innovate. I believe we did just that with the cocoon and other solutions we developed. We’re proud to play a role in improving the guest experience for the Observatory’s four million annual visitors, and to do that in the very same building where Skanska has our US headquarters.”

To provide access for the team to complete the renovation while simultaneously protecting the public below, Skanska partnered with Plan B Engineering and Greg Beeche Logistics to design, fabricate, and install a fully enclosed scaffolding structure – the “cocoon” – around the 102nd Floor. In order to construct the cocoon, a structural “halo” with hoisting carriage was first built around the 103rd Floor; this system was then used to assemble and hoist sixteen trapezoidal modules from Level 90 to 102 where they were docked and connected to one another in succession. This exterior work was performed nightly between the hours of 2am to 7am. Upon completion, the cocoon was 26 feet tall, weighed roughly 30 tons, and provided 600 square feet of exterior work space across two deck levels. It was designed to withstand all construction live loads in addition to wind gusts of up to 98 miles per hour.

With the protective cocoon in place, the Skanska team was able to demolish the existing façade and replace it with the new glass exterior, which is comprised of two dozen 450-pound glass units each measuring 8 feet. The veneer curtain wall system is mounted to original building steel and incorporates custom exterior trim pieces that were designed to match the historic aesthetic of the iconic façade.

The team also removed several mechanical shafts and replaced them with transparent mesh enclosures to improve sightlines for Observatory guests. The 102nd Floor is now illuminated by miniature LED floodlights that are programmed to adjust color based on time of day, maximizing visual acuity during both day and night.

The 102nd Floor Observatory renovation builds on a long shared history between Skanska and the Empire State Building. Skanska's US headquarters occupy the Empire State Building's 32nd Floor, which Skanska designed and retrofitted to achieve LEED Platinum status in 2008. Over the last eight years, Skanska has provided construction management services for more than 20 separate renovation projects as part of the ongoing top-to-bottom redesign of the landmark building. In 2017, Skanska led an innovative project that used a similar protective cocoon to allow Skanska workers to add 39 tons of new steel to the Empire State Building's mast, tower, and antennas. More recently, in 2018, Skanska completed the redevelopment and relocation of a dedicated Observatory entrance that serves more than four million guests each year.

Photos:



Caption: Skanska partnered with Plan B Engineering and Greg Beeche Logistics to design, fabricate, and install a fully enclosed scaffolding structure – the “cocoon” – around the 102nd Floor. The cocoon, pictured here from the 86th floor, allowed the Skanska team to complete the renovation while protecting the public below.



Caption: Skanska replaced the 102nd Floor Observatory windows with 360-degree floor-to-ceiling windows offering unobstructed, panoramic views of the city.



Caption: Skanska installed a brand-new Otis elevator system with an all-glass cab and elevator shaft equipped with technology to provide riders with an immersive experience. The new system affords passengers a panoramic skyline view as they rise to the Observatory level.

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Skanska is one of the world's leading construction and development companies. In the U.S., Skanska's core operations include building construction, civil infrastructure and developing self-financed commercial properties, which together generated \$8 billion in revenue in 2018. As a developer in the U.S., Skanska has invested a total of \$2.3 billion in commercial and multi-family projects. With U.S. headquarters in New York City, Skanska has offices in 28 metro areas with 9,000 employees nationwide. Skanska is an industry-leading innovator in both safety and project execution, and offers competitive solutions for both traditional and complex assignments to help build a more sustainable future for our customers and communities. Global revenue of parent company Skanska AB, headquartered in Stockholm and listed on the Stockholm Stock Exchange, totaled approximately \$20 billion in 2018.