Memorial Steel Steadily Rises This Summer; Historic Artifacts Protected

Last Column to Return to Site

Construction work is speeding along this summer at the National September 11 Memorial & Museum, where workers have completed more than 65 percent of the steel structure and continue significant concrete work.

Officers at the Port Authority of New York and New Jersey anticipate that nearly all of the 4,550 pieces of Memorial structural steel will be installed by the end of this year. Once the plaza is built to grade level, more than 450 oak trees will be placed across the 8-acre site, a space designed for contemplation, reflection and remembrance.

Crews are also pouring thousands of cubic yards of concrete to form the below-grade floors, installing 181 steel reinforcing bars called “tie-backs” in the foundation walls, and forming the signature reflecting pools being built over the footprints of the original Twin Towers.

“Construction is progressing rapidly courtesy of the hard work and dedication of the contractors and New York City construction trades employed at this important project,” said Thomas J. O’Connor, P.E., the Senior Engineer of Construction for the Port Authority. “We expect to continue this aggressive pace over the coming months to ensure completion on schedule.”

As construction progresses, officials are taking precautions to protect historic artifacts at the Memorial and other projects at the World Trade Center site for future generations of visitors, including the “Survivors’ Staircase,” a flight of stairs that provided the last escape route for survivors on Sept. 11, 2001. They are also protecting column base remnants that outline the footprints of the Twin Towers; the East Subway entrance; sections of the East and West slurry foundation walls; and remnants of the Hudson Terminal and the H&M Railroad.

“This summer, we will reach another milestone when the historic Last Column is returned to the site where it will be displayed in the Museum,” 9/11 Memorial & Museum President and CEO Joe Daniels said. “During the recovery efforts, this monumental artifact was covered in remembrances, transforming it into a tribute and symbol of resilience. The Museum will preserve and present this piece of history to help tell the story of 9/11 to millions of visitors each year.”

Port Authority officials are preparing to move the iconic column from Hangar 17 at JFK International Airport to the site in downtown Manhattan. The column has been stored in a climate-controlled room at the hangar, apart from nearly 2,000 other World Trade Center artifacts. Experts spent years preserving the 35-foot-tall column of steel and the heartfelt 9/11 tributes.

At Hangar 17, preservationists Steven Weintraub and Peter Gat worked to protect the column, using hypodermic needles to inject glue into the column's flaking rust. In some cases, magnetic strips will be used to better affix 9/11 tributes to the steel, including posters bearing the images of fallen firefighters and civilians, dried flowers, and a rusting set of rosary beads.

The column is among many more artifacts at Hangar 17, some of which will return to the site. Artifacts include two of the World Trade Center’s tridents – nine-story high massive steel structures from the base of the Twin Towers; pieces of the broadcasting tower that stood atop the World Trade Center; mangled fire trucks and emergency vehicles; a wood viewing platform used by relatives of 9/11 victims, inscribed with tender tributes; and a twisted elevator track.
Cranes Critical to Construction Progress at WTC

Look skyward at the World Trade Center construction site and you’ll most likely witness a mechanical symphony of giant cranes at work. As construction progresses on the 16-acre site, some two dozen cranes have been brought in to do the heavy lifting, transport and demolition critical to the redevelopment of the site.

In an effort to ensure that the cranes are operated safely at the site and other Port Authority properties, Department of Buildings Commissioner Robert LiMandri and Port Authority of New York and New Jersey Executive Director Chris Ward signed an agreement that creates a new process to verify that any crane or derrick erected, dismantled, jumped, or operated on Port Authority properties in New York City conform to the safety standards set by the NYC Construction Codes and DOB regulations.

“Our job is to make the World Trade Center site, and all of our projects, safe for the workers and safe for the people who live and work around them,” Ward said. “This initiative will help us do that.”

There are at least four different types of cranes at the World Trade Center site. They include crawler cranes, which are mounted on an undercarriage with a set of tracks that provide stability and mobility; mobile cranes which have wheels for traveling; truck-mounted cranes; and tower cranes, which are fixed to the ground or attached to the sides of buildings.

WTC and the Community

Community stakeholders had a special opportunity to tour the World Trade Center site by foot recently as part of a walking tour series launched by the Office of Program Logistics.

During the 90-minute walking tour “Walkshop” on May 13th, traffic and transportation expert Sam Schwartz led a group of representatives of the Port Authority of New York and New Jersey, Manhattan Community Board 1, local residents and business owners around the site in order to discuss specific quality of life concerns at the site and potential solutions.

Sam Schwartz Engineering was hired by the Port Authority of New York and New Jersey to evaluate construction impacts on the surrounding community and to make recommendations to improve on- and off-site safety, circulation and quality of life.

Several participants praised the Port Authority’s recent decision to hire pedestrian managers to facilitate the smooth flow of pedestrians at major intersections around the site.

Improvements resulting from previous Walkshops include better nighttime lighting throughout the site’s perimeter, as well as widened and repaved sidewalks around adjacent streets to provide less congested pathways for residents, workers and visitors.

Q: How is the World Trade Center project special compared to typical redevelopment projects?

A: The World Trade Center Redevelopment project is both a construction and engineering marvel, with a complexity rarely undertaken. Many of the structural and systems elements are interconnected, requiring a high degree of collaboration during both the design and construction phases. The project also requires collaboration because of multiple structures simultaneously under construction in a space of only 16 acres, which includes a vast underground transportation network; major skyscrapers; a Memorial and Museum; a transportation hub; a state of the art vehicle security center and a grid of new city streets. This project is a collaborative effort of dozens of stakeholders, including government agencies, elected officials, community groups and businesses, all working toward a common goal that benefits our City, the NY-NJ Region and all our visitors.