BEST OF 2008 AWARDS

One Bryant Park

PROJECT OF THE YEAR: Green Project

If a project team says it can't build the deepest foundation in midtown Manhattan and make it one of the greenest skyscrapers – Bank of America will tell you the opposite. That's what the bank has done at One Bryant Park.

One Bryant Park broke ground in August 2004, and it took four years, 27,000 tons of structural steel and $1 billion to complete the 2.1-million-sq-ft tower.

Rising 56 stories in midtown, the 1,200-ft-tall tower is aiming for a LEED platinum core and shell designation and LEED gold commercial interiors designation.

The joint developers Bank of America and the Durst Organization brought together a team of experts to bring the complex project to life, including Tishman Construction Corp., Cook + Fox Architects, Structure Tone and Gensler, all of New York. In addition, nearly 60 subcontractors of varying specialties worked on the project.

Tishman brought the infrastructure out of the ground. Twenty-four existing buildings were demolished to prepare the site, and the foundation went nearly 70 ft into the ground. The team brought in seismic specialists and worked around and laterally supported the Sixth Avenue subway infrastructure with a bracing system.

The glass and steel tower utilizes advanced technology to make its operations as green and efficient as possible. Under the deep foundation, an under-slab drainage system captures groundwater that infiltrates under the slab, which is then recycled into the building's gray-water system. This gray-water system also collects and stores rainwater, wastewater and cooling and steam condensate, which is used in various places throughout the building, saving millions of gallons of water per year.

The project incorporates advanced curtain-wall technology to allow for maximum daylight while providing advanced insulating properties. Green roofs reduce urban heat island effect, and a 5.1-megawatt cogeneration plant provides 67% of the building's power.

David Horowitz, senior vice president and project director at Tishman, says one of

Key Players

Owner/Developer: Bank of America, New York/The Durst Organization, New York

Construction Manager: Tishman Construction, New York, N.Y.

Construction Manager, Home Office: Structure Tone Inc., New York, N.Y.

Design Architect: Cook + Fox, New York, N.Y.

Executive Architect: Adamson Associates Architects, Toronto, Ontario

Interiors Architect: Gensler, New York, N.Y.

Mechanical Engineer: Jaros Baum & Bolles, New York, N.Y.

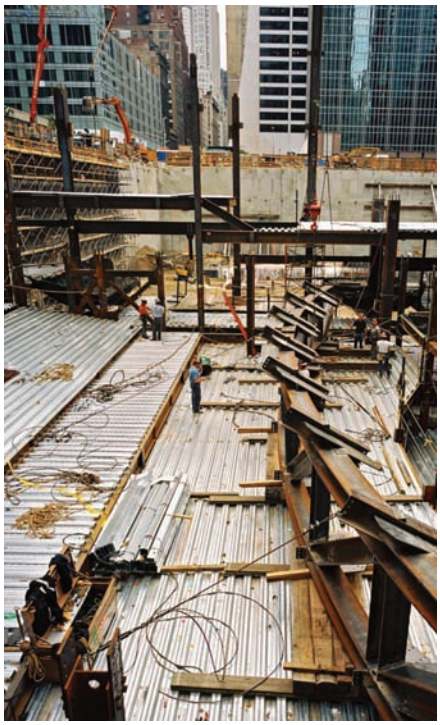
Structural Engineer: Severud Associates Consulting Engineers, New York, N.Y.

Geotechnical Engineer: Mueser Rutledge Consulting Engineers, New York, N.Y.

Owner's Representative: Jones Lang LaSalle Inc., New York, N.Y.

Owner's Consultant: Trammell Crow Co., New York, N.Y.

Historic Preservation Consultant: Higgins & Quasebarth, New York, N.Y.



the major complexities of the project was the simultaneous task of building the core and shell of the building while Bank of America built its complex infrastructure.

"We were able to coordinate the logistics and maintain an environment within a building still under construction to allow tenant fit-out before the base building was fully enclosed and completed," Horowitz says. "This feat allowed the tenants to fit out and move in much earlier than a conventional schedule would have allowed."

Beginning with the lower floors, Tishman turned over portions of the building housing the Bank of America offices to Structure Tone for interior construction in April 2007.

Designed by Gensler, the interior aimed for the same high level of energy efficiency and technology as the core and shell. Bank of America's offices include an under-floor air-ventilation system, which delivers a higher level of fresh air and allows for individual control at the floor. At least 35% of the interior materials are constructed of recycled and recyclable materials.

"The pursuit of LEED gold, coupled with the aggressive schedule and the magnitude of the project was perhaps the biggest challenge we faced," says Frank Renzler, executive vice president at Structure Tone. "The key to meeting that challenge and delivering the project as successfully as we did was the outreach and LEED education we provided to the subcontractors."

BEST OF 2008 AWARDS

National Audubon Society Headquarters

AWARD OF MERIT: Green Project

The National Audubon Society doesn't just talk the talk when it comes to its mission of natural resource conservation. It seeks to lead by example, and its new headquarters is demonstrating that principle.

The NAS headquarters on Varick Street in the Hudson Square neighborhood of Manhattan occupies 27,500 sq ft and was completed in March after a year of construction. The project team, led by FXFOWLE Architects, Citadel Construction Corp. and Flack + Kurtz Engineers, all of New York, brought the project to a LEED platinum for commercial interiors designation.

The project incorporated a number of innovative sustainability features in order to achieve a high LEED rating, including low-flow and automatic water fixtures and daylighting to maximize natural light throughout the space. More than 75% of construction debris was diverted from landfills; Energy Star appliances were installed; and materials with a high level of recycled content were used for walls, ceiling tiles, carpet and drywall.

Guy Geier, FAIA, IIDA, LEED AP, a senior partner at FXFOWLE Architects, says that one particularly important feature is the use of a raised floor and underfloor air-distribution system, a technologically advanced green feature but a rarity in older, existing buildings. The system has led to significant energy savings due to reduced air velocities, and it also gives workers flexibility and control over the airflow at their individual stations, Geier says.

He adds that the team was able to reduce the overall ambient lighting needed to illuminate workstations from 45 to 30 footcandles by providing task lighting at individual desks, incorporating daylighting strategies and utilizing daylight sensors.

Under the mission of NAS, an important guiding principle for the project, the team has created a green office, healthy workspace and a leading example for interiors.

"The systems and materials were not considered separately and were designed holistically in an integrated design process," Geier says. "Alternate systems were constantly compared against each other as well as within the context of the entire project to maximize return on investment and LEED points."

This concept of green space is not a new one for NAS. Its previous headquarters at 700 Broadway brought pioneering green principles to real estate in the 1980s, far ahead of its time.

Key Players

Owner: National Audubon Society

Construction Manager: Citadel Construction Corp., New York, N.Y.

Architect: FXFOWLE Architects, New York, N.Y.

MEP Engineer: WSP Flack + Kurtz, New York, N.Y.

Commissioning Engineer: AKF Engineers, New York, N.Y.

Lighting Consultant: Illumination Arts LLC, Bloomfield, N.J.

Expediting: ARC Consultants Inc., New York, N.Y.

BEST OF 2008 AWARDS

Willow School Arts Barn

AWARD OF MERIT: Green Project

The LEED platinum Arts Barn at Willow School in Gladstone, N.J., aims to be a classroom experience as well as a life-sized example of conservation and sustainability.

The school is immersing its 75 elementary school pupils in a technologically advanced structure that embraces its 24-acre surroundings and teaches by interaction rather than textbooks.

"Sustainable and regenerative design are integrated throughout the buildings and site as a framework to deliver the core curriculum, says Mark Biedron, Willow's cofounder. "Students interact directly with the facilities they use. They take real-time data such as energy use, humidity levels and temperature change from a central computer and incorporate them into daily lessons integrated through all subjects."

The 4,000-sq-ft Arts Barn, completed in December by project manager Joseph R. Loring & Associates Inc. of Princeton, N.J., and architect Hone + Associates of Lambertville, N.J., achieved 58 points in the LEED rating system, earning it a Platinum designation.

The many ecofriendly, sustainable features enable the Barn to consume 75% less energy than a standard building. In addition to photovoltaics, the design team incorporated a grey-water system, heat recovery and daylight harvesting.

In addition, the project incorporated principles of adaptive reuse by deconstructing, relocating and reconstructing a 19th Century barn for the creation of the new Arts Barn, instead of constructing from virgin raw materials. An existing barn building on the site of the Willow School, which housed boiler and chiller plant utilities, was to be connected to the reassembled barn once it was moved to the site.

The central utilities needed to remain operational throughout construction.

"Detailed coordination was required between the design team and construction team to ensure that the existing underground infrastructure was not impacted by the addition," says Steven J. Kenah, PE, CEM, LEED AP, senior vice president at Joseph R. Loring.

In addition to classrooms, the Arts Barn contains a Movement Studio, which serves as a multipurpose space for physical education, presentations, dining and performances.

Key Players

Owner: The Willow School, Gladstone, N.J.

Project Manager: Joseph R. Loring & Associates Inc., Princeton, NJ

Architect: Hone + Associates, Lambertville, N.J.

Ecological Design: Back To Nature, Oldwick, N.J.

Contractor: Solid Wood Construction, Gladstone, N.J.

HVAC: Supreme Heating and Air Conditioning, Middlesex, N.J.

Contractor: Siemens Building Technologies, Pine Brook, N.J.