METROPOLITAN DESK

Because Niagara Wouldn't Fit Inside a Lobby

By GLENN COLLINS (NYT) 674 words
Published: March 20, 2006

It is as yet unfinished, and still bone-dry. But already, New York's shimmering new three-story, $6.9-million glass waterfall is tantalizingly visible above the plywood construction barriers shielding the lobby of the $500 million Hearst Tower.

The indoor waterfall, in the lobby on Eighth Avenue between 56th and 57th Streets, will be the signature of Midtown's most buzzed-about new skyscraper, the first in Manhattan to be designed by the architect Norman Foster. The 46-story tower of gleaming diagonal glass-and-steel grids soars atop the reconstructed base of the fanciful, palatial 1928 Hearst headquarters building, and has the new address of 300 West 57th Street.

Hearst executives say the primary lesson of the waterfall is not its complex sculptural design, but rather the fact that all of its water will come from rain captured on the building's rooftop, piped to a 14,000-gallon tank in the basement and recycled.

"We wanted to create something that would not look like anything else," said Brian G. Schwagerl, the Hearst project manager for the building. And certainly the 27-foot-tall, 75-foot-wide glass wall -- designed to enhance the lobby even when dry -- is an alien visitor among Manhattan's modest clutch of public indoor waterfalls.

They include the three-tiered vertical channel of water in the Olympic Tower atrium at 645 Fifth Avenue, between 51st and 52nd Streets, the granite-backed cascade in the Aon Center at 55 East 52nd Street, and the underwater-ish lobby in the W Times Square Hotel at 1567 Broadway, at 47th Street. There, visitors wait for elevators under the glass bottom of a pool that diverts water down transparent walls.

During much of the four years that the Hearst waterfall was being designed, it had an unglamorous working title: "the water feature." But last April, upon seeing a mock-up of the icy-looking glass blocks, Lord Foster named it Ice Falls.

Workers will finish sealing the waterfall's joints by late April, and water will be running in May as the tower's first tenants arrive. The official opening will be in September.

A half-inch surface of water -- some 15,000 gallons per hour -- will flow down the cascade, built of 50 tons of art glass cast into 580 planks, each four feet long. These planks of clear-white glass were made by an artist in Oakland, Calif., using Tasmanian sand because it has a low iron content, "and it is so water-white it looks like ice," said James Garland of Fluidity Design Consultants Inc., the water expert on the project.

The slope is 38 degrees, "an unusually steep angle that conveys lots of energy," Mr. Garland said, adding, "The task is to remove energy from the

cascade at every terrace, yet not starve the life out of it."

Therefore, the glass has been scored with grooves that hold back water flow at each of 52 terraces down the slope. Without such grooves, "the water would be all over the lobby," Mr. Garland said.

Even greater constraints were imposed on the designers. The water source had to be adjustable to prevent "rivering," excess water on the slope. Acoustically it had to be musical, but not too loud. And there could be no splash, spray or flying droplets, since people would be entering and leaving on three escalators traversing the waterfall.

People will flow up and down the waterfall "like the water," said James F. Carpenter, the project consultant on the effects of light, who conceptualized the glass design. Thanks to the wall's varying diurnal reflections of both daylight and artificial illumination, "people will move up into the building through a field of light that is ever changing."

The intelligent, computer-controlled system is divided into six zones, and its 22 control valves, which direct water strength and flow rate, can be adjusted to prevent dry spots. "For us, this construction has the intricacy of a Swiss watch," said Michael Wurzel, a partner at Foster & Partners.

Despite its sophistication, the waterfall "is designed for ease of maintenance," Mr. Garland said. "But I can tell you it will take more work than a swimming pool."

Photo: Water should be running by May down the glass cascade that is to be the signature of the new Hearst Tower. (Photo by Suzanne DeChillo/The New York Times)