



## LULU Hits the Streets

A sanitation garage shows how to make a Locally Undesirable Land Use...desirable

BY JANET ADAMS STRONG, PH.D.

Sanitation garages rank among the least-loved building types, typically served by bulky structures so functionally constrained as to preclude any art in their architecture. That formula was trashed in the new Manhattan Districts 1/2/5 Garage (M1/2/5 Garage), co-designed by Dattner Architects and WXY Architecture + Urban Design.

Mike Friedlander, director of special projects at New York's Department of Sanitation (DSNY), set the tone: "You can't build a cheap, ugly building and just dismiss it as a sanitation facility. What does that say about the department? About its attitude toward the city? We have to do the best building in the neighborhood, not only visually, but how it fits in, how people feel walking by it."

The project began in 1998 when DSNY had to vacate the new Hudson River Park. The search for a two-acre replacement site led to a UPS parking lot on Spring Street and the creation of an innovative industrial condominium, whereby UPS owns and occupies ground-level parking, while the city owns and occupies a newly built five-story garage. For increased efficiency and reduced overall impact and cost, the shared facility serves Man-

hattan Community Districts 1, 2, and 5. An outmoded DSNY garage on an adjacent block will be replaced by a sculptural salt shed, also by Dattner and WXY. Both facilities are ideally located so that sanitation trucks and plows, part of the city's emergency response team, can fan out from the West Side Highway.

SoHo residents fiercely resisted the "Garbage Garage" and the odor, noise, and reduced property values it threatened. Paul Bauer, AIA, LEED AP, principal-in-charge for Dattner, remained confident: "It's a parking garage. Once people realize no trucks are parked on the street and no garbage is stored on site, they'll forget their fears and embrace this urbane building and streetscape." Indeed: the garage has become a positive selling point for nearby luxury residential buildings.

The garage's five façades include a green roof with an enclosed mechanical penthouse to protect neighbors from noise and unsightly views. The ventilation system draws fresh air from a roof monitor and exhausts through separate ductwork to the west, away from the community. To further reduce emissions, Con Edison specially extended its steam network; no fossil fuels are burned on site for heating or cooling.



At ground level, linear brick rustications echo the fins and add texture and scale. “We were adamant about making a brick base work,” explains Claire Weisz, FAIA, principal of WXY. “The compressed height conveys a nice solidity so the garage visually floats rather than crashes to the ground.”

Perforated aluminum fins shade the garage and unify the many vents and structural elements that come together in an artful patchwork. Except in office areas, the angled fins are stationary, yet their 2.5-foot placement makes for an exciting dynamic, especially from a moving car or boat, so the walls seem to flutter open or closed.

Breathtaking river views entice employees to bypass elevators and climb an appealing, glazed stair in the building’s notched southwest corner to two-level district offices, lunchrooms, and locker rooms; this “active design” element contributes to anticipated LEED Gold certification. Each functional district is painted a different color with the surprising outcome that the layered palette, seen from the city, very closely resembles the preliminary renderings that helped quell community fears.

Trucks queue along West Street and inside the garage before refueling and ramping up behind the expressively inclined east façade. A muscular orange truss reinforces the curtain wall against vibration from the 25-ton trucks, adding glimpses of color and movement to the street. Trucks park on Levels 3, 4, and 5 along the river, away from residents, behind a façade that glows so poetically at sunset that one forgets its utilitarian function. A monumental window illuminates maintenance facilities on Level 3, where trucks are also power-washed, using harvested roof water and condensate from a steam turbine that steps down pressure from Con Ed. (Mandated coloring of non-potable



(above) Designed as the building’s fifth façade, the 1.5-acre green roof softens views from neighboring buildings, protects the roof membrane, and enhances storm water retention and thermal performance.

(opposite page) Even before construction is completed, the power of the double-skin façade to articulate the massing, lighten and reduce the apparent bulk of the building, and provide a sense of scale that visually integrates the building with the neighborhood is evident.

(right) The outer layer of the double-skin façade is formed by 2,600 perforated metal fins.

OWNER: NYC Department of Sanitation

CLIENT AGENCY: NYC Department of Design + Construction

ARCHITECTS: Dattner Architects; WXY Architecture + Urban Design

DATTNER DESIGN TEAM: Paul Bauer, AIA, LEED AP, Richard Dattner, FAIA, Gia Mainiero, AIA, LEED AP BD+C, Jay Chokshi, LEED AP BD+C, Joon Cho, AIA, Jillian Crandall, Assoc. AIA, Michael Daniels, AIA, Ruth Dresdner, AIA, Eric Epstein, AIA, LEED AP, Boris Lakhman, RA, Daniela LaRocca, RA, Brian Nesin, AIA, LEED AP, Matthew Thomas, RA  
 WXY DESIGN TEAM: Claire Weisz, FAIA, Mark Yoes, AIA, Leed AP, Layng Pew, AIA, Adriel Mesznik, AIA, Christopher Kupski, RA, Iva Filipovic, RA, Joewen Poon, Maliko Shimizu

LANDSCAPE ARCHITECT: Abel Bainnon Butz  
 LIGHTING DESIGNER: Domingo Gonzalez Associates

STRUCTURAL ENGINEER: The Burns Group

CIVIL & MEP ENGINEER: Greeley and Hansen

COMMISSIONING: Horizon Engineering Associates

GEOTECHNICAL ENGINEER: Langan Engineering

SURVEYOR: Maitra Associates

CURTAIN WALL CONSULTANT: Front Inc.

VERTICAL TRANSPORTATION: VDA

ARCHITECTURAL CONCRETE CONSULTANTS: Reginald Hough, FAIA; Terra Tech Associates

TRAFFIC: Philip Habib & Associates

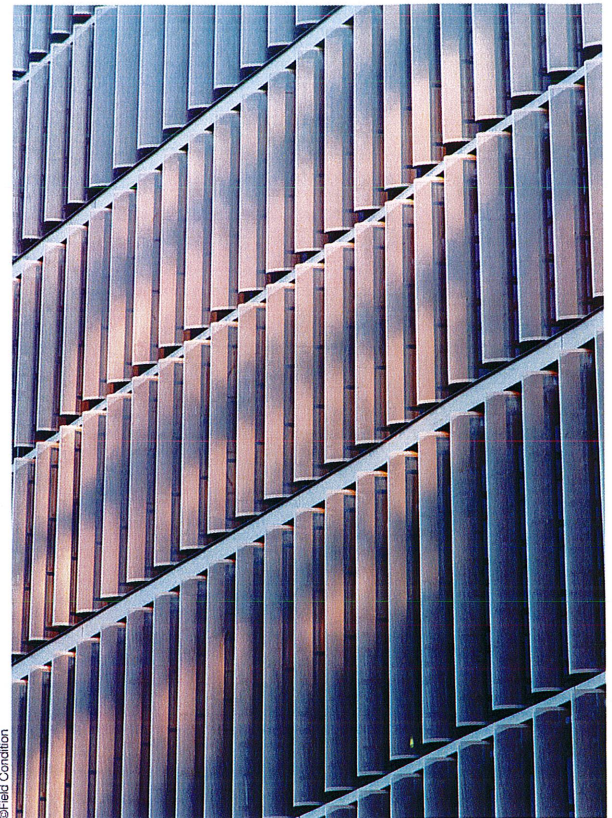
ARCHITECTURAL SPECIFICATIONS: Robert Schwartz Associates

HARDWARE: Jerome Thomson

COST CONSULTANT: J.C. Estimating

GENERAL CONTRACTOR: DeMatteis/Darcon Joint Venture

CONSTRUCTION MANAGER: Turner



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water was waived so that DSNY trucks, proudly white since the 1960s, wouldn’t end up baby blue.)

The 400,000-square-foot garage stands comfortably among sprawling warehouses, but only inside can its vast scale be appreciated. Concrete ramps some 40 feet wide incline with super-highway precision, carefully banked to prevent plows from surface gouging. A crash barrier surrounds each level and keeps trucks inside; higher span-drels along the ramps shield the community from headlights. Initial stem walls and floodgates were heightened post-Sandy, ensuring that the garage, equipped with a flood-proof fuel supply and generator, can operate 24/7 even in emergencies. For added protection against water and salt, the concrete slab was sloped for drainage, built with stainless steel rebar and moisture-inhibiting additives, and top-coated with epoxy.

In an emotional protest against the garage in 2009, performer Laurie Anderson asked rhetorically, “Is this really what the coast of Manhattan should look like?” The answer is yes! The M1/2/5 Garage is a showpiece from land and water at a prominent entrance into the city and, executed under budget, a compelling lesson in expecting more than anti-landmarks from our infrastructure. ■

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