

# SNAP

SWEETS NEWS AND PRODUCTS

A PUBLICATION OF THE MCGRAW-HILL COMPANIES

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**ROUGH + SMOOTH:** Sand taken from the site was used to make the cast-concrete panels mounted to this house on Long Island (top and left); the Twaron material that clads the expanded Stedelijk museum is more commonly found in tennis rackets or boat hulls (bottom).

foundation and raised entry court yielded sand for the concrete panels — a mix that included white cement and lyme devised by contractor **Ben Krupinski**, who also directed the four-person team that cast the panels on site. Individual foam molds were made for each panel on a 2-axis CNC mill. There are 970 blocks in total; each 2.5"-thick panel measures 20"-square, weighs 45 pounds, and attaches to a **sealed, load-bearing CMU** via stainless steel Z-clips. The joints are not filled, so the textured cloak also acts as a rain screen.

#### SYNTHETIC AESTHETIC

The 117-year-old **Stedelijk Museum**, located in near-downtown Amsterdam, boasts all the privacy an owner could want. A.W. Weissman had designed the Dutch Renaissance-style building with its back turned to the city square Museumplein. To win the 2004 competition to create a 98,400-square-foot extension, architect Mels Crouwel, a founding principal of Amsterdam-based **Bentham Crouwel Architects**, determined that the museum should engage the public, not shy from it. Scheduled to open in late September, the three-story building reorients the Stedelijk to face Museumplein.

The new ground-floor entrance, which also includes the museum shop and cafe, is entirely glazed. Above it, gallery and administrative functions are housed in a volume whose tapered oblong shape and opaque white surface have earned it the nickname "the bathtub."

Crouwel intended both harmony and dissonance with the design. Part of the commission included repainting the original museum building white, and because the white canopy aligns with the historic gutter, the new wing hopes to appear like a natural continuation of its predecessor. Yet the bathtub cannot be mistaken for historic artifact. "The only way to treat the old building with respect was to make a complete contrast with it," Crouwel says.

Cladding the bathtub in **Twaron**, from **Netherlands-based Teijin**, underscored that distinction. It is the first architectural application of the **synthetic fiber**, which is more typically used for nautical, aerospace, and industrial products. Crouwel chose to juxtapose the material's smoothness to the rigorous design and textural brickwork of the original museum. Indeed, it could appear as a continuous 32,300-square-foot surface: "Dilation seams . . . would totally spoil the flawless look we were aiming for," he explains, and Twaron promised the least thermal expansion and the smallest seams. The material is fabricated into panels and mounted, closely abutting one another, to steel-truss embedded walls that form part of a long-span superstructure resting on five columns and one concrete wall. ■

FOR MORE INNOVATIVE BUILDING ENVELOPE SOLUTIONS, DON'T MISS THE "SECOND SKIN" CEU ON PAGE 65.

## SURFACE TREATS

CLADDING MANUFACTURERS ARE EXPANDING THEIR OFFERINGS TO MEET DEMAND FOR PRODUCTS THAT IMPROVE PERFORMANCE AND ORIGINALITY.



#### ESCALE STEEL FABRIC

Escale, a stainless-steel fabric by GKD Metal Fabrics, wraps Spain's Pasarela del Arganzuela footbridge, designed by Dominique Perrault, in a spiral.

[GKDMETALFABRICS.COM](http://GKDMETALFABRICS.COM)



#### METAL PANEL SYSTEM

To update the efficiency and appearance of Penn Yan Academy, King + King Architects wrapped the expanded building in tongue-and-groove metal panels by Centria.

[CENTRIA.COM](http://CENTRIA.COM)



#### SUNGUARD PVGU

Guardian SunGuard PVGU combines Pythagoras Solar's photovoltaic glass units and Guardian Industries' SunGuard architectural glass for the commercial market.

[GUARDIAN.COM](http://GUARDIAN.COM)



#### CORIAN EXTERIOR PANELS

DuPont and Dri-Design have teamed up to create an exterior application for Corian, fastening the solid surface to the metal wall system in two standard panel sizes.

[DRI-DESIGN.COM](http://DRI-DESIGN.COM)

Most petals were set at 60 degrees from the facade — replicating the shade of trees. In the occasional place where petals cant at 30 degrees, the view for interior occupants opens up, and the exterior looks is as if it were rustling in the wind.

#### FROM SAND TO SURFACE

After visiting Wright's Ennis House, a client asked New York-based architect **Michael Haverland** to reference the patterned block in their own residence overlooking Accabonac Harbor near East Hampton, New York. In order to weave complexity into the four-bedroom program, Haverland raised the one-story L shape on a plinth to effect a variety of section changes. The site plan recommended opacity on the street-facing elevation, so Haverland collaborated with his project manager James Nelson to cast a **concrete block using computer-generated foam cutters**. "The idea was to be inspired by Wright, but develop a pattern based on what only a new technology could produce sensibly," Haverland says.

The team created a pair of 3-D plaids in which individual lines project from the ground like waves. Curves expedite water drainage, Haverland explains. "We also used a more organic line, because computer-generated foam forms allow shapes, depth, and projection that would not be feasible with other casting methods, or by hand."

The larger parti benefited the cladding strategy. Excavation for the