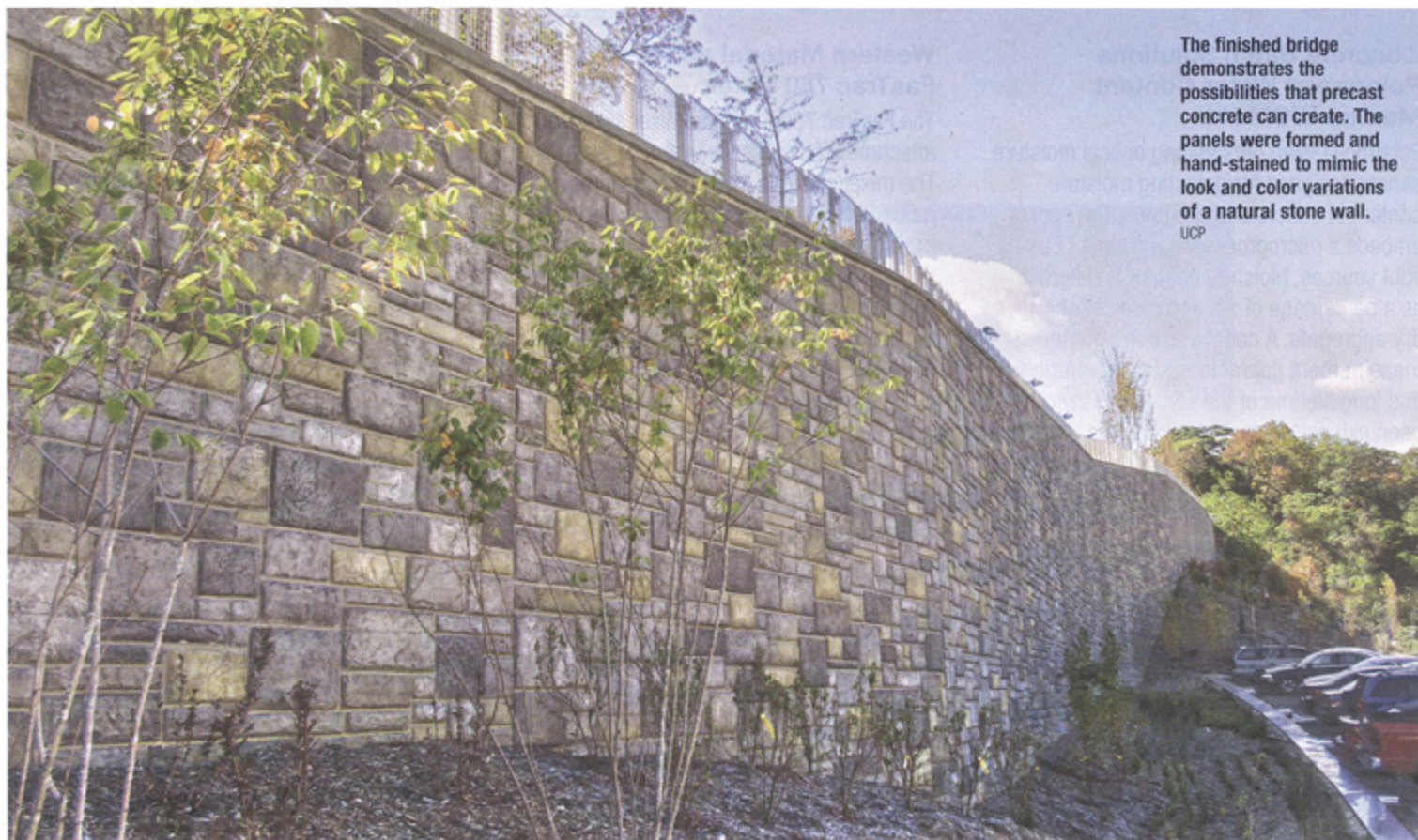


Stone-walling

Shotcrete wall with precast panels beautifies zoo in nation's capital.



The finished bridge demonstrates the possibilities that precast concrete can create. The panels were formed and hand-stained to mimic the look and color variations of a natural stone wall.

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WHEN IT COMES to visiting a zoo, the animals, obviously, are the stars of the show. But that doesn't mean the grounds and surroundings can't look as attractive as possible. Visitors, and maybe even the furry residents themselves, want to walk in a pleasant environment.

Smith-Midland Corp. (SMC), a precast producer based in Midland, Va., manufactured an 850-foot-long, 30-foot-high simulated stone retaining wall for the Smithsonian National Zoological Park in Washington, D.C., last summer. The wall replaced existing structures along an extensive drop-off along the entrance road above one of the zoo's parking lots.

Originally designed to be cast-in-place, general contractor Hensel Phelps

instead proposed using a shotcrete wall and placing precast concrete panels as a facing. The panels were formed and hand-stained to mimic the look and color variations of a natural stone wall, matching a stone wall on nearby Rock Creek Parkway.

"This wall has all the color variations of a natural stone wall, and a permanent penetrating stain that will last indefinitely," says SMC President Ashley Smith. "We are proud of this project that exemplifies Smith-Midland's ability to innovate, improve, and initiate products that are current and pleasing to the eye. We worked out the logistics with multiple contractors and delivered a quality product for our customer."

Panels were erected using a crane and

were connected to the shotcrete wall with stainless steel plates and anchors. Seven panels were set per shift, equaling one panel set per hour. Within a few weeks, most of the 30-foot-high wall was completed. Hensel Phelps' site manager, Kim Slusher, says the benefits of building a wall this way, compared to the original cast-in-place plan, was profound.

"You have a better-looking wall this way. The joints all lines up well and the shoulder joints were set consistently. Speed of construction was good. The owner is pretty happy," Slusher says. **TCP**

The article was contributed by Smith-Midland. Visit www.smithmidland.com.

Visit www.theconcreteproducer.com for more project photos.