

By Saving \$100,000, The Price Was Right

Avian Forest Segmental Retaining Wall/Bridge

Location: Avian Forest, Bellevue, Nebraska

Square Footage: 4137 square feet (384.3273m²)

Engineer: E&A Consulting Group

Architect: Savage and Palandri Architects

Consulting Engineer: Kirkham Michael & Associates

General Contractor: Roloff Construction

Sub Contractor: MCC Construction

Anchor Wall Supplier: Watkins Concrete Block

The challenge: Create an access road to a superb piece of property in Bellevue, Nebraska.

The solution: Install a roadway supported by a segmental retaining wall for a cost-effective, time-saving, and aesthetically pleasing solution with minimal disruption to the natural environment.

The full story:

Once upon a time, a property owner held a desirable parcel of land offering a view of the Missouri River as well as the beauty of Fontenelle Forest. The problem, however, was that a ravine separated the proposed development from the city streets, allowing no access for potential buyers. What was a developer to do?

The first option pitched by the architects suggested that a road and embankment be built. This idea was rejected because too many trees would have been felled and too much land would be eaten up by slopes of the new road embankment.

The second option was to build a reinforced concrete bridge over the ravine and veneer it with Colorado Mass Rock. Nice idea, but with a hefty price tag of \$250,000.

The third option was to utilize segmental retaining wall units. This idea offered not only a timely solution (the project had fallen behind schedule) but also significant cost savings over the other alternatives.

The engineer, E&A Consulting Group, chose Anchor Vertica Pro[®] to provide an aesthetically pleasing look with an economical price



The answer to cost, scheduling and environmental concerns on the Avian Forest project was an 18-foot high (5.4864m) Anchor Vertica Pro[®] wall. The culvert at the base of the wall accommodates water run-off.

tag. The near vertical batter of the structure allowed for fewer trees to be destroyed. The mortarless construction offered the flexibility to install a culvert at the base of the wall to accommodate water run-off.

The lower portion of the wall was constructed with granular fill and Strata 300 geosynthetic reinforcement. Alongside the road, Anchor Vertica[®] units were installed back-to-back for a decorative finish on both sides. Corner units on the ends provided an added touch of class. Due to concern for cars possibly hitting the walls, vertical rebar was inserted, the units were grouted, and a reinforced poured-in-place cap was constructed.

Charles Huddleston, PE, Project Designer, E&A Consulting Group, says, "We were pleased we could save the owner money and provide an attractive entrance to the development. We lost a lot of time when the project came in high, but we were able to recover due to the speed of construction with Anchor Wall Systems."

And from that point on, they lived happily ever after. . .

Have you risen to the challenge with an Anchor Wall Systems[™] retaining wall installation? Contact us at 800-473-4452, ext. 217 for consideration of your story in a future issue. 