

## CSX Railway Needs More Track Space

When CSX Railway needed to expand access to their Bedford Park, Illinois rail yard, they knew they didn't have too many options. The bridge carrying a major traffic artery over numerous railway tracks restricted their access, but they needed two more sets of tracks at their transportation hub.

CSX Transportation asked their contractor for ideas, and the proposal included removing an existing retaining wall on the south edge of the viaduct and pouring a new wall approximately 20' further into the embankment to widen the access to the rail yard.

The contractor had utilized various Symons forming systems for building median structures and sign pedestals for D.O.T. work, but they had never constructed a wall of this size under these conditions. After contacting Symons, they chose to use the Steel-Ply forming system combined with the Backbone™ one-sided forming frame for this project.

Once the embankment was reduced and soil nails embedded 20' into the newly exposed face, they poured a footing for the retaining wall, a pad for the back jack of the Backbone frames, and placed rebar for the new retaining wall.

Symons contributed several ideas to help get the project moving along smoothly. One suggestion was that they pour the footing for the wall without positioning and casting in the Tie Rods. Instead, Coil Rod could be epoxied into the exact locations necessary, avoiding placement irregu-



*The contractor removed an existing retaining wall to widen access to the rail yard.*



*The Backbone frame braced a Steel-Ply gang for this one-sided forming application.*



*Coil Rod was epoxied into the footings after the frames were in place, so there was never any problem with the Tie Rods.*



*When the new retaining wall was in place, CSX Railway gained the rail yard access that they required.*

larities common with cast-in Tie Rods. It was also suggested that they utilize 9' Steel-Ply panels in a horizontal gang to easily accommodate the Backbone frames at 3' centers.

After the 20' gang forms were placed and the frames attached and plumbed, the contractor drilled holes for 1¼" Coil Rod to be epoxied into the footing. 8" Coil Ties were utilized for the couplers and a Taper Tie for the Tie Rods that would be secured to the 8" walers. It went together perfectly, and they were ready to pour.

Everything seemed to be falling into place until the beginning of that first pour. The Backbone system held up perfectly, however the contractor discovered that they had not placed enough compacted fill in front of the wall footings. This caused slight movement in the forming structure, sliding it away from the embankment. The contractor had to think quick, and decided to drill two holes on the outer edge of the outside jacks to place #10 rebar to stop the frame system from being pushed out. A simple solution that worked like a charm!

After the first pour, they knew what to expect and prepared for the rest. They secured the footing and placed the rebar at the outside jacks prior to the next pour. They were able to set the first 60' of forms and frames up in about five days and were able to pour the next four sections and complete the 300' retaining wall within fifteen days.