



ECP Torque Anchors™ Support New Eastbrook Trails Bridge Kansas City, Kansas



The Eastbrook Trail forms a useful link between the City of Olathe's 133rd Street Path and the lengthy regional Indian Creek Trail. This paved, short trail serves as a nice additional to the area's trail network, and an amenity for local residents along its route.

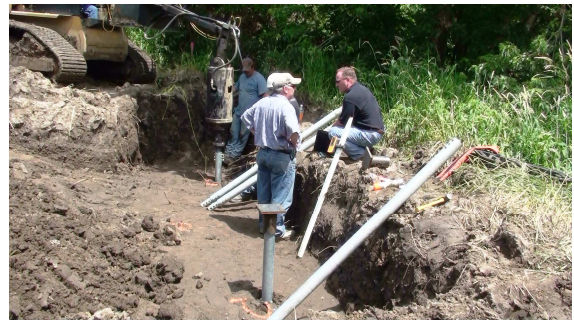
Abutment support for the bridge was provided by six 3-1/2" diameter tubular *ECP Torque Anchor™* helical screw piles. Three piles were required at each abutment. The design load was calculated at 42,500 lbs. Vertical piles were installed at each corner

of the abutments with the additional piles installed between the vertical piles. The center piles were installed at a 30° to 35° batter angle, which extended the pile away from the flow of the stream. These piles provided lateral support to the design.

| Project Summary | |
|---------------------------------------|--|
| Installer: | Mega Industries Corporation, Kansas City, MO megaks.com |
| Geotechnical Engineer: | Terracon Consulting Engineers and Scientists, Olathe, KS www.terracon.com |
| Products Installed: | HTAF-350-60 8s-14 Special Lead Torque Anchor™ TAB-350 N/C 3/4 (8x8) Pile Cap |
| Number of Placements: | 6 <i>ECP Torque Anchors™</i> Tubular Shaft - 3-1/2" dia. with 8"(Spiral Cut)-14" helical plates |
| Average Depth: | 14 ft (max 39 ft) |
| Install Torque: | 12,000 – 12,500 ft-lb |
| Ultimate Pile Capacity Rating: | 93,650 lb |
| Design Load: | 42,500 lb |
| Factor of Safety: | 2.2 to 1 |

Terracon Consulting Engineers and Scientists performed soil borings and analyses. Their report contained two soil boring logs, one from each side of the creek where the proposed bridge will span. The geotechnical engineer's report indicated that below the 6 to 8 inches of root zone materials, and topsoil; was a layer of alluvial soils that consisted of medium stiff to stiff lean clay extending to depths of 13 to 19 feet deep where highly to slightly weathered shale bedrock was encountered. The water table was found between 11 and 13 feet, but could rise in wet conditions.

All piles were installed to suitable and verified load bearing. The job progressed without a hitch and the project was completed by Mega Industries on time and within budget.



Earth Contact Products, LLC
ECP Helical Torque Anchors™
"Designed and Engineered to Perform"

The photo at the top of the page shows the completed Eastbrook Trails Bridge.

The engineer and technician are consulting after the initial pile installations at an abutment location - right above

A view of an *ECP Torque Anchor™* helical pile installation in progress is shown at right.