

PROJECT DESCRIPTION

Campbell Boulevard Bridge Temporary Shoring



Location:
Amherst, New York

Client:
High Steel Structures,
Inc.

Client Contact:
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The New Bridge Truss Rolls on a Temporary Track Supported by Cribbing and Piles

McMahon & Mann Consulting Engineers, P.C. (MMCE) designed foundations to support temporary towers and a track that were used to position a new truss for the Campbell Boulevard bridge over Tonawanda Creek. The bridge contractor assembled the new truss on two parallel rails placed on the bridge approach embankment. The truss was equipped with rollers on its base that would allow the truss to travel on the rails. Once the truss was completed, the contractor pushed the truss on the rails, over the creek and onto the new piers. Temporary falsework was used to support the rails between the new piers.

MMCE used subsurface data, the weights of the bridge truss, temporary rails and cribbing and designed bearing piles to support the temporary falsework. The foundation design considered the history of bank instability, notorious for Tonawanda Creek as well as the static weight for the structures and the dynamic forces imposed by the truss movement, wind forces and the creek currents. The contractor used bulldozers to push the truss and cables with winches to pull it.