

PROJECT DESCRIPTION

Bridge No. 31 – Foundation Recommendations

**Location:**

Franklinville, New York

Client:

Cattaraugus County
DPW.

Client Contact:

Mr. Mark C. Burr, P.E.
(716) 938-9121

View of Completed Bridge

Scope: The project designer, Erdman Anthony, was requested to design a replacement for this existing bridge over Ishua Creek, south of Franklinville, New York.

MMCE provided geotechnical engineering services to the project designer, for design of the foundations for the abutments. The soil borings indicated a dense gravel layer over clay soils which extended to more than 100 feet deep. Because of the deep soft clay deposit a pile foundation was considered impractical.

A spread footing foundation was selected to support the new bridge abutments. MMCE sampled and tested the clay soil for consolidation characteristics. The boring and testing data were used to analyze the allowable foundation bearing pressure and to estimate the settlement of the proposed foundation system. The bridge was designed with a shallow foundation and sheetpile walls to protect the shallow foundations from scour.