

Union Pacific Track Support Cedar Rapids, Iowa

Geopier® Rammed Aggregate Piers™

Project Team

Owner: Union Pacific Railroad

General Contractor: Peterson Contractors, Inc.

GFC Installer: Peterson Contractors, Inc.

GFC Designer: GFC – Midwest

Observations of post-construction movement indicated significant reductions in track deflections.

Project Overview

Description:

Soft abutment soils supporting an existing railroad line at the Cedar River Bridge crossing was causing significant deflections of the track under the railroad live loading.

Subsurface Conditions:

Beneath the railroad ballast stone, soft to medium stiff clay fill extended to depths ranging from 6 to 7 feet.

Geopier Solution:

During the construction of a new railroad bridge and subsequent relocation of track for a double-tracking operation, Geopier Rammed Aggregate Piers (RAPs) were installed in the soft clay fill soils to reinforce and stiffen the foundation soils and to support the new set of tracks. A total of 88 RAPs were installed within 50 feet of each side of the bridge to create a



stiffened transition zone between the bridge and the approach abutments. The RAPs were installed at 50 foot spacings and covered with two feet of railroad ballast stone. Observations of post-construction movement indicated significant reductions in track deflections.

FOR MORE INFORMATION

Contact Geopier Foundation Company at **800-371-7470**
or at **www.geopier.com**



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The Intermediate Foundation System