



UNITED STATES

I-29/US 275 Interchange Council Bluffs, Iowa



Owner
Iowa Department of Transportation

Engineer
CH2M Hill

General contractor
Hawkins Construction

Dates of work
2014/06 2014/11

Description

The I-29 & US 275 Interchange project is the first portion of a multi-phase, multi-year highway construction project. The Iowa DOT awarded the design to CH2M Hill and the overall work to Hawkins Construction. Menard USA was subcontracted to install Controlled Modulus Column (CMC)TM and wick drains for ground improvement to support proposed embankment construction.

The site included seven contract areas. The project was impressive for Menard USA in that it had 8 load tests, the most CMCs installed in the US (over 15,000), and had 6 drill rigs operating at one time. Overall, it was a multifaceted, schedule driven project in a generally congested area.

Main figures

Controlled Modulus Columns (CMC)TM
26159 EA.

Wick drains
759306 LF (3,240 Wick drains)

Ground conditions

The site required improvement of soft clayey soils for improved bearing capacity, global stability, and settlement control. The soil is characterized by up to approximately 30 ft of soft clays, underlain by up to 20 ft of loose to medium dense silty sand

Solution

Menard USA did not design the ground improvement solution. But overall, the system that was installed was a combination of CMC and wick drain.