San Diego River Bridge Double Track

San Diego, California

The selected technique constructed by Keller accelerated the contractor’s schedule four weeks by replacing compaction grouting with rigid inclusions.

The project

Construction of the new San Diego River Bridge Double Track (SDRBDT) within the MTS/San Diego and Arizona Eastern (SD&AE) right-of-way included construction of one mile of track and embankment supported on soft clays. Much of this new track was to be constructed near existing structures.

The challenge

Adjacent structures were susceptible to excessive settlement due to embankment-induced clay consolidation. The main challenge was working between the live train traffic and existing structures. The tight construction schedule required creative ground improvement solutions to accelerate construction. Coordination of Keller's work with the railroad's Employee In Charge (EIC) was required. Treatment depth in excess of 65 feet was also necessary to meet the settlement requirement.

The solution

A rigid inclusion ground improvement solution proposed, designed, and constructed by Keller provided reinforcement in the upper layers of soil, which compaction grouting would not have provided. Rigid inclusions were installed between live railroad traffic and existing buildings. The area treated is 26 feet wide by 1,500 feet long.

> Keller played an integral role in the design phase modifying the ground improvement methods that balanced the budget with the schedule, ultimately providing the owner with a better product.
>
> **Matthew Heminover**
> Project Manager, MCTCJV

Project facts

Owner(s)
San Diego Association of Governments (SANDAG)

Keller business unit(s)
Keller

Main contractor(s)
Mid-Coast Corridor Transit Project

Engineer(s)
Kleinfelder, Inc.

Solutions
Ground improvement

Markets
Infrastructure
Railway

Techniques
Rigid inclusions

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