



Kaiser Permanente Medical Offices

Santa Clarita, California

In response to soils loosened by unplanned demolition of the majority of existing foundation piers, Keller quickly adapted its jet grouting underpinning and shoring program to incorporate soil mixing to remediate the loosened material, minimizing lost time to the general contractor.



The project

Proposed campus improvements at Kaiser Permanente's Santa Clarita Medical Offices included the replacement of an existing five-level parking structure with new a seven-level structure. Underpinning and shoring below the footings of an adjacent two-story building were required. The shoring system is needed to provide vertical support of the footings and lateral restraint of the soils.

The challenge

Subsurface conditions consisted of alluvial soils comprised of silty sand, undocumented fill, and some gravel. The interior foundations of the existing parking structure were supported on 6- to 12-ft-diameter bell piers, seismically compromised, and deemed unsuitable for additional loading within the undocumented fill.

The solution

Keller designed and constructed an 11-ft-thick jet grout wall to underpin the existing foundations. Demolition of the existing parking structure's below-ground floor followed. The demolition contractor inadvertently removed most of the existing bell piers still required to support the building. Keller revised its planned jet grout load transfer program around the piers to a wet soil mixing ground improvement solution. The combined jet grouting and soil mixing solution was executed safely to support the existing and proposed structures.

“ I would strongly recommend Keller for any type of geotechnical project due to their quality of work, attention to detail, commitment to safety, and ability to meet deadlines.

John T. Holcomb III

Senior Project Manager, Turner Construction Company

Project facts

Owner(s)

Kaiser Foundation Health Plan, Inc.

Keller business unit(s)

Keller

Main contractor(s)

Turner Construction Company

Engineer(s)

TGR Geotechnical, Inc.

Solutions

Ground improvement
Underpinning

Markets

Institutional
Healthcare

Techniques

Jet grouting
Wet soil mixing

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