Saint Louis University Hospital Renewal

St. Louis, Missouri

Keller addressed highly variable subsurface conditions by tailoring each earth support method, providing the client with the most cost-effective solution while meeting schedule milestones.

The project

The Saint Louis University Hospital’s $500 million campus renewal program, slated for completion in 2020, includes a new 800,000 sq ft hospital facility and outpatient care center, expanded parking, green space, and areas designated for future office expansion.

The challenge

Two temporary earth retention systems, each 250 ft in length, were required at different sections along the perimeter of the overall excavation footprint to protect adjacent active roadways. Each section varied in terms of excavation depths, soil conditions, and rock elevations, requiring a location-specific approach to the earth retention technique selected.

The solution

In the section with deeper rock elevations, Keller designed and installed a drilled and rock-socketed soldier pile and timber lagging system to retain the maximum 21-ft excavation from existing street grade. For the second section, where rock elevations extended well above the bottom of the excavation, a soil/rock nail retention system with shotcrete facing was installed for the maximum 27-ft excavation.

> “Keller provided great customer support up front in the design phase and all the way through the construction process. Keller’s team was quick to resolve any coordination issues to keep us on schedule, without the sacrifice of a quality product. It was great to work with the Keller team on this project!
>
> **Brandon Zehr**
> Project Manager, Bloomsdale Excavating

Project facts

Owner(s)
SSM Health

Keller business unit(s)
Keller

Main contractor(s)
Alberici and Bloomsdale Excavating

Engineer(s)
Keller

Solutions
Support of excavation

Markets
Institutional
Healthcare

Techniques
Soldier piles and lagging
Soil nailing

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