

# Barnes-Jewish West County Hospital Addition Creve Coeur, Missouri

Geopier® Rammed Aggregate Piers™

## Project Team

**Geotechnical Engineer:** Midwest Engineering Services

**Structural Engineer:** ABS Consulting (EQE Struct Div)

**Owner:** Barnes-Jewish West County Hospital

**General Contractor:** S. M. Wilson Company

**Geopier Installer:** Foundation Service Corp.

**Geopier Designer:** GFC – Midsouth, LLC

**The potential for cost overruns for drilled piers founded on an erratic rock surface were eliminated and an overall cost savings of more than 25% was realized with the installation of Geopier Rammed Aggregate Piers.**

## Project Overview

### Description:

Construction of a new two story, concrete frame addition to the existing hospital covering an area of about 15,000 square feet. Column loads range from 100 to 220 kips.

### Subsurface Conditions:

The subsurface conditions consist of 40 feet of firm to stiff, lean to high-plasticity clay, underlain by bedrock.

### Geopier Solution:

The existing portions of the hospital are supported on drilled piers, bearing on bedrock. The foundations for the new structure were originally designed for drilled pier support until the project structural engineer considered Geopier Rammed Aggregate Pier (RAP) supported spread footings as a possible cost savings alternative for the project. By using the Geopier Intermediate Foundation System, seismic tie beams

between the footings were not needed. Additionally, the potential for cost overruns for drilled piers founded on an erratic rock surface were eliminated. The installation of 97 RAPs, in less than three days, resulted in an overall foundation cost savings of more than 25% compared to the drilled pier design. The results of modulus testing revealed less than 1/4 inch of deflection at the maximum design load.



### FOR MORE INFORMATION

Contact Geopier Foundation Company at **800-371-7470**  
or at **[www.geopier.com](http://www.geopier.com)**



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*The Intermediate Foundation System*