



St. Louis Community College, West County Campus

Wildwood, Missouri

The Rammed Aggregate Pier® System provided significant cost savings and schedule advantage as compared to deep foundations or overexcavation/ replacement that would otherwise have been required.

Description: Construction of a new 75,000 square foot educational facility to replace the existing West County Educational Center on Kehrs Road in Ballwin. The new 3-story building contains a bookstore, offices and classrooms with maximum design column loads ranging from 85 to 1190 kips.

Subsurface Conditions: Soft to stiff clay, high plastic clay and silt overlying cherty limestone bedrock. Up to 16 feet of new structural fill was placed under portions of the building to bring the area up to final grade.

Geopier Solution: The Geopier GP® system, recommended by the geotechnical engineer, was developed to reinforce the existing fill and support shallow foundations. A total of 238, 30-inch diameter Rammed Aggregate Pier® (RAP) elements were installed to provide support for column loads bearing on conventional spread footings. The RAP installation allowed for foundations to be designed using an allowable bearing pressure of 2,500 psf. The Geopier approach provided significant cost savings and



schedule advantage as compared to a deep foundation or overexcavation/replacement that would otherwise have been required.

PROJECT TEAM

Owner:

St. Louis Community College

Geotechnical Engineer:

PSI, Inc.

Structural Engineer:

David Mason & Associates, Inc.

General Contractor:

L. A. Schaefer

Geopier Installer:

Foundation Service Corporation

Geopier Designer:

GFC-St. Louis