SUBSURFACE CONSTRUCTORS, INC.

Full Service Geotechnical Contractors and Ground Improvement Specialists

Vibro Stone Columns

Peru State College Wheeler Activity Center – Peru, Nebraska

PROJECT DESCRIPTION

This project consisted of renovating and expanding the existing Wheeler Activity Center with a 5,600 sq. ft. two story addition. The foundation design for the addition required all pad and continuous wall footings to be treated with aggregate piers to a bearing capacity of 4,500 psf.

Subsurface Constructors designed the ground improvement layout, which consisted of installing vibro stone columns beneath all footings, including footings inside the existing structure. Subsurface constructed a total of 130 stone columns with the use of pre-drilling to accommodate the low (25-ft.) headroom and access conditions of the site. Subsurface installed the stone columns in less than two weeks with limited access ground improvement and drilling equipment.

Modulus tests were performed that yielded results exceeding design parameters. Access to the interior column locations was made possible by cutting a 12-ft. by 15-ft. entryway through the existing structure to allow equipment access and continuous material delivery.

PROJECT TEAM

Owner:	Peru State College	Geotechnical Engineer:	Geotechnical Services, Inc.
Structural Engineer:	The Clark Enerson Partners	General Contractor:	Lueder Construction Co.
Ground Improvement Design/Builder:	Subsurface Constructors, Inc.		