



SUBSURFACE CONSTRUCTORS, INC.

Full Service Geotechnical Contractors and Ground Improvement Specialists

Vibro Stone Columns



Bluffton, IN Bio Energy Ethanol Plant – Vibro Stone Columns for Tank Foundations

PROJECT DESCRIPTION

Subsurface Constructors had the tasks of designing and installing a ground improvement system that would yield allowable bearing capacities ranging from 3,500 psf to 5,000psf. The areas that required treatment were several different types of process and storage tanks with foundations types ranging from ringwall footings to large mats.

Vibro stone columns were installed beneath the rings and slabs of the tanks to support the loads and minimize total and differential settlement of the tank foundations. The mat foundations were supported on a rectangular grid spacing of stone columns. The spacing was decreased in the more heavily loaded areas of the mat.

Although some pre-drilling was necessary on the project, Subsurface was able to penetrate through the stiff upper layer of soil in several areas, thus minimizing the need for pre-drilling and spoil removal. In all, 1250 vibro stone columns were installed in eleven days of shifted work.

PROJECT TEAM

Owner:	Indiana Bio Energy, Inc.	Geotechnical Engineer:	Olsson Associates
Structural Engineer:	Fagen Engineering	General Contractor:	Jackson Briner JV, LLC
Ground Improvement Design/Builder:	Subsurface Constructors, Inc.		