

Geopier foundation system helps builders adjust to soil

BY ADAM KATZ-STONE
CONTRIBUTING WRITER

As a project manager with Clark Construction Group in Bethesda, Hale Chopp knows he can't put up a building on top of loose soil. He also knows firsthand just how unpredictable the underground can be.

"There is just no way of knowing sometimes," he says. "Maybe the inspector may come out and tells you to dig down another four feet and bring in gravel. If you hit a bad spot of soil you could be digging down as far as it takes."

Such unplanned revisions to a site's foundation work cost time and money — but Chopp is not having any such problem at the site of the new Oracle building in Reston. He's using a relatively new foundation system there, called Geopiers, and it is "taking all the guesswork out of this," he says.

For the past 100 years, foundation work has gone like this. You dig a great big hole, take out all the loose dirt, and replace it with tons of stone. The process works fine, but as Chopp points out, it can be awfully unpredictable. You just never know what's down there until you dig.

The Geopier system (www.geopiers.com) came along a

dozen years ago, and has been used in the Washington, D.C. area for about the past four years. It's a more pinpointed process: to build the foundation, the contractor excavates a narrow shaft — instead of a great big area — and fills it with stone.

In cases where fill depths exceed five feet, Geopiers can save 10 to 50 percent of the foundation-related costs, according to Mike Cowell, president of GeoStructures in Leesburg, the firm that markets and installs the Geopier system in the mid-Atlantic and northeast regions.

Because the system offers a higher level of predictability, "we can usually shorten up the construction schedule anywhere from several weeks to a month," he says.

As senior vice president for construction and design at West Group in McLean, Va., Robert Abt used the system to support One Research Court, a four-story office building in Rockville. "It took weeks out of the schedule," he says, "and when you are talking about carrying the cost of a building for an extra few weeks, that is significant money."

He noted that the limited size of the Geopier hole makes it possible to work on the supports during inclement weather, whereas work on traditional fill typically stops in the cold and