

# EarthTec Gets Approval

EarthTec, a design/supply specialist for retaining walls used on transportation and commercial applications, has been approved by the Maryland State Highway Administration (SHA) for its mechanically stabilized earth (MSE), EarthTrac™ HA. Maryland approved the system for walls up to 50 ft high, the highest on the state's list. EarthTrac HA was the first product to gain SHA approval for use under both the Load and Resistance Factor Design (LRFD) Specifications and the Standard Allowable Stress Bridge Design Specifications. Under the Federal highway aid program, October 2007 was the deadline for all states to adopt LRFD for bridge design.

MSE is widely used for retaining wall construction on publicly funded infrastructure projects throughout the U.S. EarthTrac HA uses galvanized, ribbed-steel soil reinforcements bolted to precast concrete facing panels. "The EarthTrac HA system uses materials with a long history of successful use on department of transportation projects," says David McKittrick, cofounder and managing director of the firm. EarthTec provides a range of earth retaining solutions, including EarthTrac™ Geostrap, a precast panel faced geosynthetic strap system for use in chemically aggressive soil environments; EarthTrac Wire, a wire-faced MSE wall for temporary works and permanent industrial structures; and EcoForm, an economical wall and steep slope system employing vegetated or stone facings.

EarthTec is a new part of **Geostructures Inc.**, Leesburg, Va., set up to provide design, supply and turnkey construction of MSE systems. EarthTec, headed by McKittrick and cofounder Mike Cowell, also is offering two new MSE systems incorporating geosynthetic straps. Known as EarthTrac™ PET and EarthTrac™ Ultra, the polymer-based straps are durable in acidic or alkaline soils where steel reinforcements can corrode. The EarthTrac Ultra system is used with highly alkaline backfill such as recycled concrete. Such applications can help contractors and owners meet environmental targets while saving up to 30% of the total structure cost compared with using virgin-quarried aggregates.

McKittrick developed the geosynthetic strap systems initially for use in the Middle East where aggressive, chloride-rich soils preclude the use of steel soil reinforcing strips. EarthTec is the only U.S. supplier for these systems and has a patent pending for the way they connect to MSE facings. Cowell says, "The systems we offer are in place on more than five million sq ft of MSE structures around the world." EarthTec has employed the galvanized steel strip system on two projects in Virginia, and the April 2007 groundbreaking for the Holiday Inn Express in Alexandria, Va., was EarthTec's first project in the U.S. to use the new geosynthetic straps.



**EarthTec Geostrap MSE Wall**  
**Holiday Inn Express Project, Alexandria, Va**

## GEOSTRUCTURES ACQUIRES TERRATECH

**GeoStructures**, the parent company of Earthtec, recently acquired **TerraTech LLC** ([www.terratechva.com](http://www.terratechva.com)). The purchase agreement creates one of the Mid-Atlantic's largest design-build contractors with combined services for ground improvement systems, engineered earth structures, and sound walls for transportation and commercial construction projects. TerraTech, known for its design and construction capabilities in anchor wall systems associated with foundation and excavation support, will complement GeoStructures' offering of ground improvement, sound walls, and mechanically stabilized earth (MSE) walls. For general contractors, the bigger company with its shared engineering resources offers a streamlined way of fulfilling ground improvement, wall and shoring requirements on a design-build basis.

GeoStructures will continue to provide ground improvement through its Geopier, Impact Pier and Rapid Impact Compaction technologies, and through its EarthTec subsidiary that offers design and supply of MSE walls.