Small companies also receive patents

While large companies receive the most patents in the Richmond area, at least 20 small Richmond-area companies also got patents in 2013.

Among the small firms receiving patents, for instance, was Advanced Wall Technologies LLC of Henrico. The company received two patents covering new methods for constructing berms, the engineered earthworks often used in construction of roads, power plants and landfills.

Advanced Wall developed ways to build berms that can increase the capacity of landfills while also reducing costs.

"The idea was to find a way to build berms with revenue-generating materials instead of cost-generating materials," said John Swenson, a partner and executive with Advanced Wall who is carrying on the business after the company's founder and chief inventor, Carlton Dudding, died in 2013, just a few months after the patents were issued.

For Advanced Wall, like most companies, winning a patent is only one step in a process of building a business.

"Developing a company around (a patented technology) is like developing any business," Swenson said. "You have got a unique, proprietary technology, and you need to turn it around and market it."