



## Lakeland Residential Development Project

[HanesGeo.com](https://www.HanesGeo.com)

**Location:**  
Manvel, Texas

**Product and Quantity:**  
Flexamat® - 36,000 ft<sup>2</sup>

**Installation Date:**  
December 2013

**Application:**  
Channel  
Overflow Structure

**Owner:**  
Brazoria Drainage  
District #3

The City of Manvel's drainage system for the new 649-home development faced a challenge in managing increased runoff while optimizing land use. S-shaped drainage curves were necessary for space, but they introduced the risk of erosion due to turbulence. Initially, a more expensive articulated block system was planned to address erosion concerns. However, Flexamat®, a flexible erosion control solution, was selected as the more economical and efficient alternative. Flexamat® not only provides robust erosion protection but also promotes vegetation growth, creating a reinforced system where the vegetation and Flexamat® work together to strengthen the natural channel. Over the years, the system has shown excellent performance, with healthy vegetation growth, easy maintenance (even allowing for regular mowing). Flexamat® protected the banks through severe rainfall and flooding. Its cost-effectiveness and durability make it a favorite solution for civil engineers in land development projects.



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