



## Case Study

**application** | Base Reinforcement  
**location** | Zona Rosa, North Kansas City, MO  
**product** | Mirafi® BXG11 Geogrids

**job owner** | Zona Rosa Development  
**engineer** | TranSystems/Walton Construction  
**contractor** | Hanrahan Asphalt Paving

TenCate™ develops and produces materials that function to increase performance, reduce costs and deliver measurable results by working with our customers to provide advanced solutions.

### THE CHALLENGE

Zona Rosa was designed as a large outdoor shopping area in North Kansas City, MO. The challenge for the engineer and contractor was to provide access to truck traffic during construction without causing damage to the pavement. They wanted to put down base rock and an initial asphalt layer during construction and then put down the final asphalt leveling course after the buildings were erected on site.

### THE DESIGN

In order to prevent rutting and other types of road failure, the engineer needed a product that would provide high strengths at low strains. Mirafi® BXG11 was designed to confine the base rock and mobilize the pavement, thus reinforcing the base course. Therefore, the rutting would be controlled and would prevent failures

to the pavement before the final asphalt leveling course was put down. The grid allowed the engineer to have a structurally sufficient pavement without the final asphalt course during construction.



Mirafi® BXG geogrid confines the base rock and mobilizes the pavement.



By installing Mirafi® BXG11 geogrid before the initial asphalt layer, construction traffic can use the road without damaging the pavement. After site construction was completed, no repairs to the road were necessary and the final asphalt leveling course was installed.

**THE CONSTRUCTION**

The contractor prepared the subgrade before Mirafi® BXG11 was installed. Mirafi® BXG11 was then laid directly on the subgrade and 6-8" of base rock was put directly on the Mirafi® BXG11 geogrid. An initial asphalt course was then installed on the base rock to allow truck traffic to access the site. The final asphalt course was installed after the construction of the buildings.



**THE PERFORMANCE**

Mirafi® BXG11 did an excellent job of confining the base rock and preventing the rutting from taking place. After construction of the buildings, the contractor was able to lay down the final asphalt layer without making any repairs to the initial asphalt course that was installed to handle construction traffic. Although there was an initial cost incurred with using the geogrid, in the long run the Mirafi® BXG11 geogrid provided a cost savings by preventing damage to the pavement before construction was completed.



Mirafi® BXG11 geogrid prevented rutting and damage to the pavement, allowing the contractor to install the final asphalt layer while saving money and time.

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