



CASE STUDY

Railbed Stabilization - BaseLok™ Geocell

LOCATION: Glenlea, Manitoba

PROJECT TYPE: Product Supply & Engineer Consultation

PRODUCT USED: BaseLok™ Geocell & Nonwoven Geotextile



CHALLENGE:

The railbed of a rail track servicing a G3 Grain Elevator site in Manitoba required rehabilitation. Repairs on the track a few years before were not holding up. The railbed was experiencing subgrade failure, the ground was dropping out, and the customer needed a long-term stabilization solution.

TITAN SOLUTION:

An alternate solution was being considered, however based on site conditions, and with the client's best interest in mind, Titan's technical team determined that the best solution for this project was a design using BaseLok™ geocell for stabilization which is made of HDPE material and offers 100/years of design life.

The design included two layers of custom-size geocell panels secured with cable locks and the cells filled with sub-ballast rock. Layers of geotextile helped with further reinforcement and meeting filtration requirements.





CASE STUDY

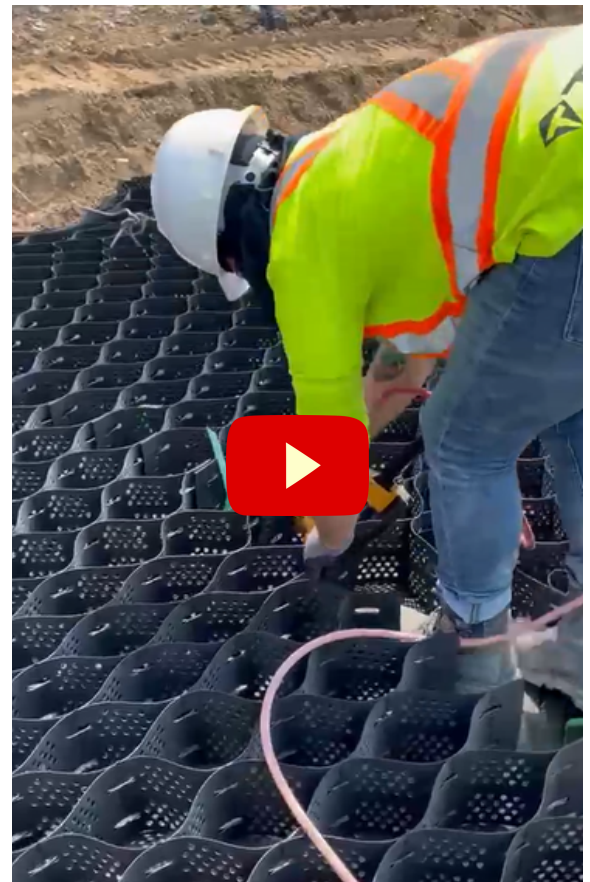
Railbed Stabilization - BaseLok™ Geocell

ACHIEVEMENT:

The installation was completed in two phases. Recognizing the importance of crew productivity, a crew of seven people was put to the task. This strategic staff size proved to be ideal, resulting in a significant installation time reduction without compromising the quality of the work.

The use of staple guns for geocell fastening was one significant innovation that was used during the installation phase. This switch from conventional rope ties turned out to be a game-changer, providing a simpler and quicker substitute. The installation process was made much more efficient overall by the use of staple guns. This streamlined operations while guaranteeing safe and dependable placement of the geocell. During the second phase of installation, difficulties were experienced when driving wood stakes into the compacted granular subgrade. This challenge was overcome by using blunt-tipped hammer drills.

Titan's creative application of tools and installation methods demonstrated how crucial it is to adjust to project-specific difficulties, highlighting the necessity of appropriate instruments to guarantee favorable results. This, combined with BaseLok™ geocell's ease of use allowed for an easy and quick install to restore the railbed with minimal disruption.



Geocell Stapling Video