

Development Division - Planning Branch

Date: 24 Dec 2014

To: PRS Mediterranean Ltd

**Re: Conclusions of Monitoring of Israel Railway Project of the New Nahariya-Acre (Akko) Line**

According to your request I would like to approve and stress the following points:

1. Your new reinforcement method – we implemented the combination of geocell and geogrid trials in specific locations over the last few years, in our most problematic locations, in terms of subgrade strength and bearing capacity.
2. The excellent main results of these trials, gave us the required confidence to approve implementation for the entire new Eastern Nahariya-Acre Line with this method.
3. The main problem with this line was that the entire route was over expansive clay soil. The Western line built using conventional (unreinforced) methods did not provide an adequate solution to the differential expansion and subsequent high maintenance costs.
4. The installation of the new line, parallel to length of the existing Western track was finished over a year ago and continuous monitoring by the Railway is performed several times a year.
5. The absolute and comparative results between the two tracks prove in the most consistent manner that the reinforcement method provides a complete solution to the problem of weak subgrade. The cumulative deformation from the new method is lower than that from the previous method. Significant savings are expected in maintenance costs to the Israel Railway from the use of this method on expansive clay soils.

Sincerely,

*(signed),*

Route Planning Manager  
Track Engineer  
Dr. A. Rabinowitz