

Roadside Soil Stabilization Employing a Novel Approach to Ancient Nabatean Strategies

Erosion is one of the largest problems society is facing today. While there are many standard solutions to reducing erosion during infrastructural development, most are aimed at aesthetic solutions implemented on the borders of agricultural fields and in rainy areas.

With the increase in development in the southern part of Israel (the most arid part of the country), we at Geoteva conducted an experiment to evaluate the most effective method of stabilizing soils beside roadways while preserving the natural flora and fauna of the region.

The method we established was based on an ancient Nabatean method of slowing water flow on sloped terrain by digging small furrows in the hillside. Our experiment included building berms with locally excavated soil, compaction, digging small furrows, and “hydro-seeding” (see images 1-4 to the right). This sustainable solution was found to be greatly successful in both stabilizing the soil without requiring additional irrigation beyond the yearly rains as well as encouraging local plant growth.

We are now excited and proud to announce that our method of roadside soil stabilization is currently being implemented in

the southern region of Israel’s biggest highway, “Cvish 6” (Road 6) (see two images below).

It’s both exciting and encouraging to see the results of our experiments come to fruition in national developmental projects, and we look forward to accompanying more environmentally friendly projects throughout Israel!

