Selected Project References

SSP DC 04 | Version 1.0 | 14 October 2026

The following examples show helical products used for shallow slope protection and railway embankment reinforcement. Each application requires its own ground assessment, design and installation requirements.

Highway slope protection in Canada





Mesh facing installed on the slope | Prefabricated helical anchor assemblies

Application and components

The project used helical anchors, a geotextile layer and steel wire mesh on a Canadian highway embankment. Steel rods and helices formed the anchors, while bearing plates and nuts secured the surface layers at the anchor heads.

Project approach

Rotary-installed anchors connected the facing to the ground. The arrangement was intended to restrain shallow soil movement and reduce surface soil loss while allowing grass cover to develop. Later site photographs show vegetation established across the treated slope.

Manufacturing relevance

The application illustrates the need to coordinate anchor geometry, threaded ends, plates, nuts and facing interfaces. Anchor spacing, inclination, depth and the contribution to overall slope stability must be assessed for the particular site.

Railway embankment reinforcement in Ireland





Night works beside the existing railway | Rotary drive and pile installation interface

Project background

This double-track railway project in a lake and marshland area of Ireland adopted helical piles to address differential settlement in soft ground. The project began in May 2019 and required coordination of ground conditions, train loading and access beside the existing track.

Technical and supply collaboration

SSP provided technical assessment, reinforcement design, product manufacturing and supply, and installation support. Pile components were manufactured in China and shipped to Ireland. A local contractor organised site equipment, crews and installation activities.

Installation and verification

The project included an installation plan for existing-track and night-time working, together with a load-testing plan to support quality control and acceptance. The photographs show excavator-mounted rotary equipment working beside the railway.

Discuss a similar manufacturing requirement

Send the available ground information, loads, drawings, quantities and delivery destination to ryanzhang@ssppile.com. Our team will discuss the product and manufacturing scope with your appointed project professionals.