



Fortifying Foundations: Ensuring Railway Safety with DYWIDAG Rock Bolts

Case Study

DYWIDAG's rock bolt solutions were critical in stabilising the precarious cliff face at Plunkett Station in Waterford, delivering a highly technical solution for a challenging public infrastructure project. The initiative enabled the safe continuation of railway operations, demonstrating the effectiveness and durability of DYWIDAG's rock bolt technology.

PRODUCTS

DYWIDAG Threadbar Rock Bolt System

LOCATION

Ireland

TIMELINE

08-2022 - 12-2022

SCOPE

Supply

OWNER

Waterford City Council

CONSULTING ENGINEERS

Roughan & O'Donovan

GENERAL

CONTRACTOR

Cumnor Construction Limited

Context

Cumnor Construction had the challenging task of stabilising the Mount Misery hill's rock face flanking the south of Plunkett Station, Waterford. This massive rock face, approximately 400m in length and up to 60m high, included steep, sub-vertical areas presenting complex access issues. The project demanded the clearance of vegetation, the establishment of safe work areas, rock bolt installations, rockfall protection measures, earth berm construction, and drainage system construction. All these tasks had to be performed in close proximity to a functioning railway line, requiring a careful and effective solution.

Solution

DYWIDAG supplied a total of 2,556m of 40mm GEWI rock bolts and 462m of 20mm GEWI rock bolts, both galvanised, to secure the cliff face. These rock bolts were key in providing the necessary stabilisation of the rock face. Despite the challenging working conditions and access difficulties, the team managed to safely abseil the 40m high cliff to install the bolts. The outcome was a successfully stabilised cliff face, ensuring the safety of the railway line and surrounding areas. The project was also completed on time and without incident.

