

Case Study - Patchway Embankment

Client: Alfred McAlpine
Duration: 10 weeks
Location: Patchway, nr Bristol



Background

North of Bristol Parkway station these two rail lines pass through a cutting prior to entering the twin tunnels. Investigation proved that stabilisation of the embankment slopes was needed to safeguard against any slippage onto the tracks, almost 30 metres below.

Scope of Works

Over 1500m of embankment had to be re-graded to a shallower profile, with a geotextile grass matting to be laid and tied into the slope for

a sustainable 'green' solution. Up to 50,000m³ of material had to be moved up to and around the two tunnel entrances.

Solution

Specialist long reach excavators were proposed to provide a reach of up to 26 metres from the top of the rail embankment. For the main areas WM Plant Hire used two of their Caterpillar 330 machines with 24 metre reach. Safety procedures were agreed with Network Rail to enable work on a 'live' track.

A Caterpillar 375 with 26 metre reach was used to complete the project - excavating the remaining material along the embankment and adjacent to the tunnel portals.

The works were completed without incident and avoided disruption to the train services by keeping the lines open. This project used the long reach expertise of WM Plant Hire and demonstrated the benefits of these specialist excavators over standard reach machines.