

# Project Report

# Slope Stabilisation

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	<b>CONTRACTOR</b> Hobart Paving	<b>INSTALLER</b> Site 7 Construction

## Requirement

At Vale Primary School in West Sussex, the embankment supporting one side of the playing field had begun to slip. This caused the pitch to drop and the boundary fence to become unstable, raising safety concerns about the slope and surrounding area. West Sussex County Council required a reliable slope stabilisation and erosion control solution to restore safety across the school grounds.

The chosen approach needed to be cost-effective, environmentally considerate and cause minimal disruption to school activities. Anchor Systems' Vulcan Earth Anchor system was selected as it offered a more efficient and sustainable alternative to options such as drilled and grouted soil nails or sheet piling.

## Testing

Prior to installation, a comprehensive site test was undertaken to demonstrate the suitability of the Vulcan Earth Anchor system for the site's specific ground conditions. Two AS-30 Vulcan Earth Anchors were installed and successfully tested to their maximum capacity of 60kN, significantly exceeding the project's design load requirements. Based on these results, the specification was revised to AS-20 anchors, which provided more than adequate holding capacity at a lower cost.



The design required all anchors to be proof load tested to 8kN and then locked off at 5kN. Ground conditions included approximately 1m of medium-density topsoil with SPT values of 10-15, overlying chalk with higher strengths of 30-40. Anchors were driven to a depth of 2m, where testing confirmed reliable performance across the site, ensuring confidence in the long-term stability of the solution.

## Solution

Anchor Systems supplied 154 AS-20 Vulcan Earth Anchors, complemented with 300mm recessed pattress plates and 60mm galvanised threaded bars. Recessed plates were specifically chosen to ensure no exposed elements remained visible on the embankment, reducing any potential safety risks for pupils and staff accessing the slope in the future.

Installation was carried out by Site 7 Construction using an 8-tonne excavator fitted with a breaker attachment, with proof testing completed using a 20-tonne hydraulic ram. Given the limited access to the base of the slope, all work was conducted from the top using long-reach machinery, with fencing temporarily removed to facilitate safe operations. To minimise disruption to teaching, the works were scheduled during school break periods and completed within five days.

For additional erosion control and environmental enhancement, the slope was lined with a Greenax erosion control mat. This provided temporary protection while vegetation re-established, and it was carefully cut and stitched around existing trees to preserve the site's natural features. The embankment was then hydroseeded with a wildflower mix, which not only stabilised the soil but also encouraged biodiversity and created an attractive outcome.

The completed works delivered a stable, safe and environmentally sensitive solution that successfully met the council's requirements, secured the school grounds, and enhanced the surrounding landscape.

## Vale Primary School



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