

CASE STUDY
DRILLING & GROUTING, GLASGOW HIGH SCHOOL

Development: School extension

Location: Glasgow

Client: AKP Contractors

Project Overview

Glasgow High School was outgrowing its premises and AKP Contractors were building a new 'up and over' extension. Prior to the extension being constructed it was proved through site investigation that a shallow redundant coal seam had been historically extracted. This shallow coal seam could potentially cause surface instability if no remedial action was taken.



A program of artificial consolidation works was needed in order to stabilise the shallow redundant mineworkings. All the works were to be carried out whilst the school was open and the upwards extension followed a tight five week build programme.

The current building stood on land which had voids within a shallow coal seam at 18m below ground level.



Result

The voids were under the original school so we had to drill at an angle from outside the building completing 120 No holes. We then worked within restricted access and headroom conditions inside the building to drill 20 No further holes to complete the grid pattern.

We mixed and injected a fluid grout into the drilled borehole grid. This stabilised and consolidated the redundant mineworkings enabling the proposed extension works to be constructed.

Technical information

We injected a 10:1 mixed fluid PFA and OPC grout.
Rig: Casagrande C4, Soilmec PSM 80 and a mini restricted access rig for inside the building.

