



Cossall Footbridge 93 (TCC), Ilkeston, Derbyshire.

October / November 2002

Framework Contractor: Birse Rail

Main Contractor : North Midland Construction

As Part of the Railtrack CCRM (*Cross Country Route Modifications*) project, many pedestrian track crossings are being upgraded by the construction of new footbridges. At Cossall, in order to upgrade the crossing to foot and bridle path status, the existing footbridge was to be replaced, in the same location. Due to increased foundation loads and poor ground conditions, a piling solution was required and Systems Geotechnique were subcontracted to design and construct a scheme.

Preparatory work carried out during a T(iii) possession, saw ducts for air and grout placed under the tracks. This enabled us service each work area from one side of the tracks whilst working on either side in Green Zone conditions.

A total of 108 No. nominal 200mm diameter piles were constructed using three of our rigs (2No. KR708 and a TD610) with air flush rotary percussive drilling methods. In each pile, 220 mm diameter temporary casing was used through overburden and coal seams overlying mudstone in which 190mm diameter rock sockets were drilled. Piles were reinforced with a single 25mm 'GEWI' bar and grouted.

The works were completed on schedule over 4 weeks, to enable the new bridge to be placed during a weekend possession on the 30 November/02 December.

In January / February 2003, Systems Geotechnique carried out similar footbridge foundation work for MPB Structures under the Railtrack CCRM contract at Willington, Breadsall and Branston located in and around Derby.