



LIME MODIFICATION AT SIR JOHN THURSBY COLLEGE, BURNLEY

Client:

Kiernan Construction



PROJECT DETAILS

LIME MODIFICATION WORKS

The scheme to construct a new school required the subgrade and fill beneath the building footprint to be compacted to 98% MDD. The ground beneath external paving needed 95% compaction. An insitu CBR of 5% was also stipulated.

The earthworks were to take place during November/December and the sandy clays that comprised the cut/fill material were susceptible to deterioration by rain. It was therefore decided that lime modification would be used.

Works Carried out by Combined Soil Stabilisation

The laboratory design work encompassed the establishment of moisture/density/MCV relationships for the lime/soil mixture and CBR strength for seven days. When work started it became apparent that the MCV/moisture content relationship varied markedly across the site. In conjunction with Bureau Veritas test house, who were undertaking the site compliance testing, a correlation factor was established for NDM and Oven moisture contents.

This enabled the modification works to be controlled to give the necessary densities without waiting 24 hours for the oven dry moisture contents. This coupled with the high compactive effort of the CSSL 20 tonne roller ensured that the high values of relative compaction were achieved.