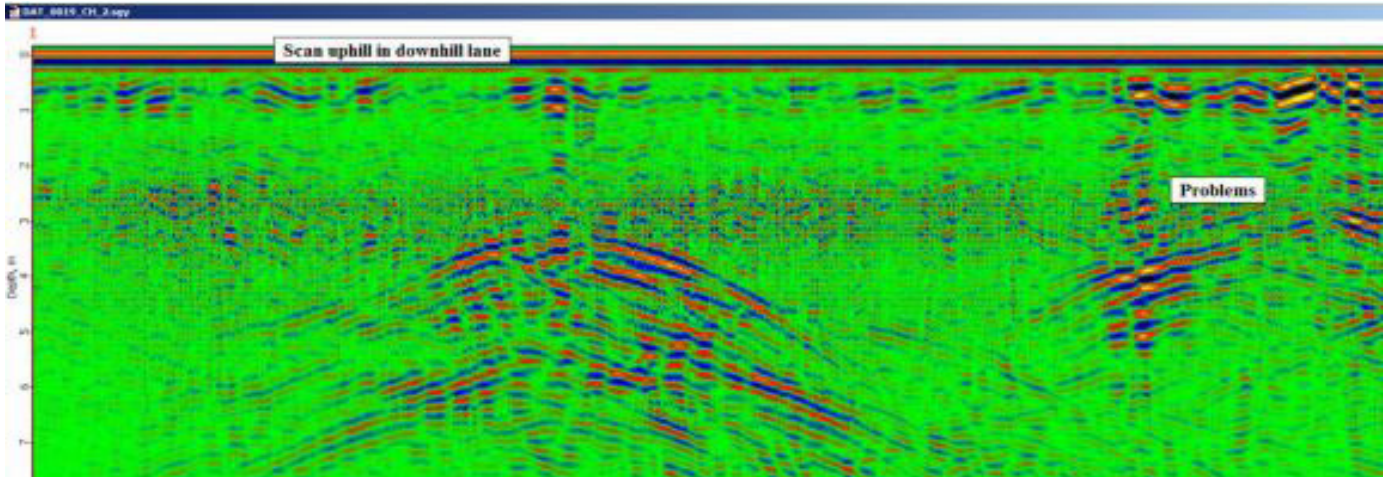


C50 ROAD AT TEMPLE, SCOTLAND



SUMMARY

A section of road outside Edinburgh was showing signs of accelerated degradation. The surface was suffering extensive fracturing on the southbound carriageway on an area of the C50 near Temple.

OBJECTIVES

A ground penetrating radar survey was conducted, which determined anomalies that are detrimental to surface stability at a number of locations around the region. The conclusions showed there were problems along the section of road below the sub-base materials, which were caused by inadequate water drainage. In order to solve these issues Midlothian Council contracted Uretek to provide their flexible road stabilisation solutions.

The Uretek solution comprised of a series of injections of specifically selected geo-polymer that would expand under the sub base to push out waters and fill voids. This method would stabilise the road and prevent the likelihood of any sudden failure, which could see an entire section of road collapse.



TECHNOLOGY APPLIED

The works programme would involve multiple injection points throughout 120m of road. The process requires drilling to the required depths and inserting injection tubes, which would then deliver the expansive geo-polymer to the affected area. Uretek monitor each injection using lasers to establish the successful stabilisation of an area - indicated by a 0.25mm lift on the monitoring systems.

Following the treatment the section of road was fully stabilised meaning a new surface could be introduced in the knowledge that the asset life could be extended and potential failure minimised.

