

A153, DONNA'S CORNER STABILISATION

Background

The A153 is a busy road Honnington to Sleaford in Lincolnshire. Over the years an increase in traffic numbers and the increasing weight of vehicles has put the road under considerable pressure; the forces are shifted downwards through the road surface into the subsurface and further below.

One section of the road, Donna's corner, has been particularly affected. This section was originally constructed on poor ground meaning over time subsidence has taken effect. Voiding and compression within the sub base has resulted in a very irregular surface for 400metres.

Lincolnshire County Council's maintenance contractor Kier contacted Uretek to provide subsurface stabilisation works prior to resurfacing.



Solution

Uretek are the common choice for ground stabilisation works as the disruption and timescale of the processes minimise the inconvenience to road users. The solution is long term and allows resurfacing to be future proofed against further failure.

For this section of road, the council wanted to minimise closures, so Uretek worked overnight for two weeks to stabilise a stretch of 375 metres full width and 40metres half width.

The process involved drilling holes in a designed pattern across the sections of road to a depth between 0.5 and 0.9 metres; a tube is then inserted into the hole and Uretek geo-polymer is injected. The expansive force of the geo-polymer fills any voids and eliminates any water from the sub base, depending on the ground beneath in some areas it was possible to actually lift the road to reduce the irregularities.

The road at Donna's corner is now fully stabilised which means any further subsidence has been prevented and a new black top is future proofed against fracture and potholing.