



ULTILAYER

Proven performance

Long term durability and crack resistance on steep gradient

THE CHALLENGE

Sunrising Hill on the A422 is a steep hill (16% gradient) on a busy road between Banbury and Stratford upon Avon with a number of sharp bends on the descent.

The previous surface of hot rolled asphalt (HRA) and 20mm pre-coated chippings had become highly polished.

This presented problems for heavy vehicles ascending the hill. It also increased the risk of serious accidents for road users when descending the hill.

The new surface would be subject to high stresses from heavy vehicle braking and lateral forces generated by the tight turns.

OUR SOLUTION

Tarmac Contracting was asked to come up with a resurfacing solution at one of the regular Technical Working Groups that was held as part of an ongoing partnership with Warwickshire County Council and Balfour Beatty.

The new surface needed to have a low texture and thus give more aggregate contact with the tyre footprint. It also needed to use a high PSV aggregate to prevent future polishing. ULTILAYER was recommended as a 50mm single layer solution over the existing binder course.

Using a high performance polymer modified binder (PMB) and a carefully designed aggregate grading, it achieves a strong, flexible and durable surface.

RESULTS AND BENEFITS

The existing surface was planed out and ULTILAYER was successfully installed in a single layer over a three day period.

As a result of this work, the texture on this busy stretch of road was restored and safety was improved for road users.

As expected, the long term durability of the new road surface has also been impressive.

The cover image was taken in January 2018. Despite the high stresses that this section of road is subjected to, the surface texture has been maintained and there is no visible sign of cracking or deformation.

Performance update

The site was visited again in Autumn 2024 by Tarmac's regional Technical Product Support Manager.

More than ten years after it was laid on this very steep, busy section of road between Banbury & Stratford Upon Avon, ULTILAYER is still delivering outstanding crack resistance and clearly outperforming the adjoining hot rolled asphalt (HRA) surface.

Extending pavement life and resurfacing intervals is increasingly being recognised by local authorities as a way of delivering long term value and reducing net carbon emissions over the life of the road.



For more details visit: [tarmac.com](https://www.tarmac.com)

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