PROVEN PERFORMANCE

The ultimate solution to reflective cracking and road surface deformation
New Road, Alderminster
THE CHALLENGE
This country road in Alderminster, to the south of Stratford upon Avon was suffering from severe cracking and required resurfacing. This section of road had suffered from repeated cracking, caused by expansion and contraction in the underlying clay. The resulting cracks in the surface course were deep and severe, allowing water to enter the pavement and cause further damage. The client was keen to explore alternative solutions to extend the life of the pavement surface and break the costly cycle of repeated failure and remedial maintenance.

THE SOLUTION
After discussions with Tarmac as key supply partner, the client decided to undertake a trial. It would compare the performance of ULTILAYER, Tarmac’s high performance crack resisting asphalt with the previous default solution, 55/10 Hot Rolled Asphalt with 100/150 pen binder. ULTILAYER has been specifically developed to combat reflective cracking and road surface deformation. It uses a high performance polymer modified binder (PMB) combined with carefully designed aggregate grading. This makes it highly flexible and resistant to deformation and cracking.

RESULTS AND BENEFITS
After three months there was significant cracking clearly visible in the HRA. In contrast the ULTILAYER section was entirely crack-free with no signs of deterioration. Monitoring of the site since then has shown that despite the challenges of the underlying ground conditions, ULTILAYER resisted cracking for around eight years after it was originally laid. Only recently has minor cracking started to appear in the section of pavement. This represents a huge improvement in both crack resistance and pavement life with significant implications for return on investment for the client. Since this work was completed, ULTILAYER has been used on a number of other schemes on the client’s road network.