

PROVEN PERFORMANCE

The ultimate solution to reflective cracking and road surface deformation, Culverhouse Cross Roundabout, A48

ULTILAYER

Product ULTILAYER

Client CARDIFF CITY/ VALE OF GLAMORGAN COUNCIL

Main contractor TARMAC CONTRACTING

Location CULVERHOUSE CROSS ROUNDABOUT, A48

Date of completion NOVEMBER 2017

THE CHALLENGE

Culverhouse Cross, situated on the boundary of Cardiff and the Vale of Glamorgan is one of South Wales' busiest roundabouts linking West Cardiff to the M4 and providing access to Barry and Cardiff Airport. Large volumes of traffic and high stress areas on the roundabout, was causing deterioration of the road surface and requiring constant maintenance to repair potholes and failed joints. A long term surfacing solution was needed to end this costly and disruptive cycle. Tarmac Contracting were already programmed to complete the works to the A48 to Tumble Hill under the Vale of Glamorgan resurfacing package. Cardiff City Council decided to use the opportunity to complete works to Culverhouse roundabout as part of a joint scheme.

OUR SOLUTION

Technical assistance was provided by Tarmac to review the challenges faced on this busy stretch of road and advise on the most suitable surfacing solution. Tarmac's ULTILAYER 10mm surface course was approved as the chosen surfacing material. The high performance Polymer Modified Binder provided a highly flexible, very strong and extremely durable surface. ULTILAYER had been used effectively on a number of Vale schemes but this was the first time it had been used on a major scheme in Cardiff. To minimise the impact on road users, work would be completed at night between 20.00 and 06.00 with phased closures and diversions.

RESULTS AND BENEFITS

Around 40 mm of the existing surface was planed out and replaced with 1960 tonnes of ULTILAYER 10 Surf PSV60. Early involvement from Tarmac, detailed planning and collaborative working, helped deliver a successful outcome. Works were completed as planned and opened fully to the public in advance of the busy festive period. Feedback from both authorities was very positive:

"Culverhouse Cross has now been completed Could I pass on my personal thanks to all involved in this work, Great effort" Paul Evans- Vale of Glamorgan

"Thanks for doing a good job – we did not receive any significant complaints as I know it was tricky especially as the diversion was quite long. Can you thank your team. Thanks" Matt Wakelam- Cardiff CC

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