

ULTIPOROUS

Proven performance

POROUS ADOPTED ROAD FOR NEW HOUSING DEVELOPMENT

The challenge

This exclusive up-market housing development in rural Somerset, required surfacing for what would become an adopted residential road. Planning requirements specified that a sustainable form of drainage would be needed to gain planning consent. The rural greenfield location of the site meant that installing a new conventional drainage system would be difficult and would require a separate contractor adding time, cost and disruption for the developer. Since the local authority would eventually adopt and maintain the road, they were also keen to make sure that it would be durable and low maintenance. Tarmac's Technical Product Support Manager was asked to recommend alternative materials that would deliver a fast draining but durable surface that could be installed quickly.

Our solution

After discussing the requirement with the independent design engineer and local authority highways team, ULTIPOURUS, Tarmac's durable porous asphalt was recommended. The pavement design would consist of a 10mm surface course and 20mm porous binder course laid over specialist drainage aggregate. This pavement design would allow full infiltration of rainwater to eliminate puddles and standing water even after heavy rain. It would also achieve a safe, all-weather surface for residents and avoid surface run-off into the local catchment. The approach taken, meant that no drains or manholes were required, which is another advantage of using this product for architects and designers. It would also be a fast and cost-effective solution for the developer as it would avoid the need to install pipe work for a new drainage system.

Results and benefits

Collaborative working with the independent designer, local authority and contractor helped deliver an effective result for the client and the local authority highways team that would adopt and maintain the new road. Comprehensive support was given by Tarmac including providing technical guidance, site visits and advice on best practise during installation. 230 tonnes of ULTIPOURUS was supplied and laid, with paving work completed quickly, allowing the opening of the development sooner than expected. The pavement is still performing exceptionally well, nearly two years after installation, with no problems reported with flooding or standing water. For the local authority, the new pavement design met planning requirements for a sustainable drainage solution that would manage rainwater at source and avoid local flood risk. It would also deliver lasting durability, helping to minimise future maintenance requirements.