Heidelberg Materials

Project case study

A20

Collaborative working drives sustainable asphalt solution in Kent

Product
20mm binder course containing 60 per cent recycled content

Client
Kent County Council

Contractor
GW Highways

Overview

The A20 in Maidstone has been resurfaced with an innovative asphalt containing 60 per cent recycled content, the highest used in Kent so far. Working closely with GW Highways and Kent County Council, we designed a durable, lower carbon solution that reduces reliance on primary aggregates and supports local circularity.

This project shows how collaborative working can deliver more sustainable highways and sets a strong foundation for future trials of higher recycled content materials.

Project description

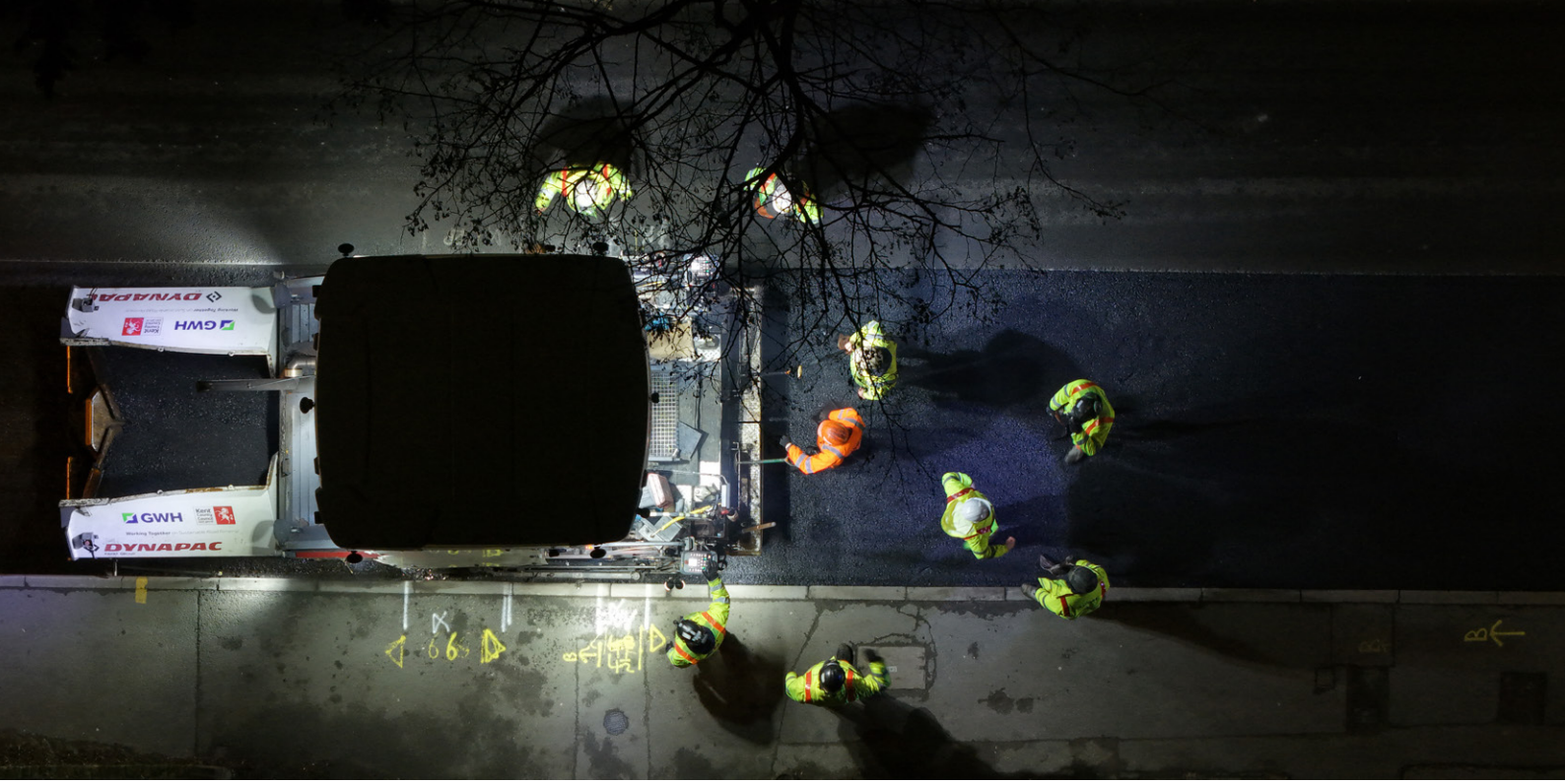
A section of the A20 in the centre of Maidstone, Kent, has been resurfaced using an innovative, lower carbon asphalt containing 60 per cent recycled content – the highest level used in the county to date.

We worked collaboratively with contractor GW Highways to design a durable asphalt that supports our carbon reduction targets and aligns with Kent County Council's ambition to manage resources through a circular economy.

The solution was to apply for a departure from the standard specification to include 60 per cent reclaimed asphalt in the binder course of the scheme, reducing the need for primary aggregate and promoting circularity.

Kent does not have any aggregates suitable for asphalt production due to the geology of the area. This means that all material needs to be brought in from other counties by road, rail or sea, increasing the carbon footprint of projects, but also making Kent susceptible to fluctuations in market conditions.

Using locally sourced recycled materials minimises the need for primary aggregates helping provide security of supply while improving sustainability credentials.



> Reducing our reliance on primary aggregates is essential for both carbon reduction and long term resilience in Kent."
>
> Byron Lovell, Pavement Asset Engineering Manager, Kent County Council

On the section of the A20, a special additive was included in the asphalt for the 20mm binder course to soften the residual bitumen content, allowing the recycled content to be increased while also improving the workability of the material, which was laid to a thickness of 60mm.

The asphalt was supplied by Heidelberg Materials' nearby Allington plant and the work was carried out at night to minimise disruption for road users.

Paul O'Neill, Regional Asphalt Director at Heidelberg Materials UK, said: "This project is the first time we have supplied asphalt with 60 per cent recycled content and its success demonstrates the opportunity to replicate it across the country.

"Our partnership with GW Highways, as its preferred supplier in Kent, has created a culture of trust, which promotes innovation and drives sustainability and best value for the client."

Herbert Micallef, Technical Director at GW Highways, added: "Collaborative working is one of our core values and this scheme is an excellent demonstration of that. We are now looking to build on its success by trialling a higher reclaimed asphalt content in surface course asphalt laid in the county."

Byron Lovell, Pavement Asset Engineering Manager at Kent County Council, added: "Reducing our reliance on primary aggregates is essential for both carbon reduction and long term resilience in Kent.

"This project demonstrates how working closely with our partners can deliver real progress towards more sustainable highways. It is an encouraging milestone as we look to trial the use of recycled materials across future schemes."

Heidelberg Materials UK
Second Floor, Arena Court
Crown Lane
Maidenhead
Berkshire SL6 BQZ