

ROCHDALE ROAD, OLDHAM

MILEPAVE™

Since 2010, Oldham Metropolitan Borough Council has monitored its carbon footprint under its climate action plan. In 2020, it became the first UK council to adopt a Green New Deal, pledging continued support for community energy in the borough.

Miles Macadam was specified by Oldham MBC based on its ability to deliver a reduced carbon surfacing scheme. Dogford Road Junction is situated on a busy section of the A671 Rochdale Road which serves as a key route between the Manchester Boroughs of Oldham and Rochdale. As a heavily utilised road, the existing surface of the junction had received numerous maintenance interventions with no long-term success. It is subject to high stress particularly from Southbound vehicles turning onto Dogford Road and the tight radius of the turn caused the existing asphalt material to exhibit stone loss across the mat, ravelling at the joints and wheel track rutting.

The scheme involved planing out and resurfacing the site using 1,080m² of Milepave™ PMB at 50mm depth, as selected by Oldham MBC. Milepave™ is a reduced carbon surfacing process that is manufactured using lower mixing temperatures and resources, therefore offers significant reduction in carbon emissions over conventional materials. Its 14mm aggregate design provides greater aggregate interlock and strength while the asphaltic grout enhances durability by sealing the surface. This system also reinforces surface strength to prevent stone loss and joint degradation. A specialist PMB binder was incorporated into the Milepave™ to further enhance cohesion and tensile strength alongside reducing temperature susceptibility.

The material and carbon savings were calculated using Miles Macadam's Carbon Calculator and showed that in comparison to a PMB SMA, Oldham MBC saved:

- 16.9 tonnes in aggregate
- 2.2 tonnes of PMB bitumen
- 3.4 tonnes of carbon

The use of Milepave™ PMB reduced carbon emissions by over 40% compared to conventional asphalt. The contract, completed over two days with single-line working and restricted hours, minimized disruption. Despite the tight schedule, the project was delivered on time. Chris Mackay of Oldham MBC Highways & Engineering praised the quick completion, saying, "I was impressed with how well it went despite the tight programme."