

“The Heads of the Valley has been a great project to work collaborate with FCC and it partners to deliver the largest civil engineering contract Wales have seen for the last decade, we have offered a dynamic and sustainable partnership to keep the project to the program timescale.”

Kerry Minahan, Major projects Manager South West & Wales

Planet

Climate Action

Heads of the Valley

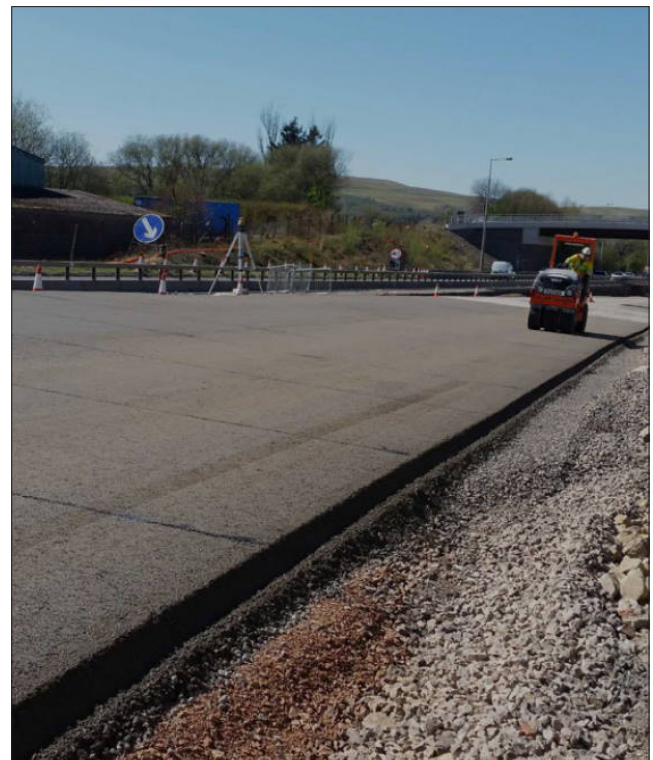
Having worked extensively with the Welsh Government for many years, including on previous sections of the A465 Heads of the Valleys, Tarmac were delighted to return to the latest project, supplying aggregate and concrete direct to contractor FCC, and asphalt through our South Wales Pavement department.

The A465 is a major link road from West Wales to the Midlands, and the latest works involve expanding sections 5 and 6 of the A465 to create two lanes in each direction. Over 15km of highway is being constructed, including the building of over-structures and bridges, with works expected to be completed in 2025.

Tarmac supplied 255,120 tonnes of slag aggregates for the project, a recycled aggregate and byproduct of the steel industry. As a direct alternative to primary aggregates, slag aggregate is not only versatile but also offers a sustainable solution for construction by helping to eliminate waste and drive the transition to a circular economy.

As well as delivering sustainability benefits at manufacturing stage, slag aggregate is also hard-wearing and provides excellent resistance to deformation of ruts in surface course asphalt, ensuring a long life for the road surface. This reduces the carbon associated with future maintenance, with the additional benefit of providing safe surfaces for the whole life of the carriageway due to its resistance to polishing.

Over 180,000 tonnes of aggregate used on the project were transported by articulated and walking floor vehicles. With an increased carrying capacity compared to rigid trucks, using these vehicles resulted in 2,700 fewer vehicle movements on the project, offering a carbon saving of 370 tCO₂e.



Tarmac also supplied more than 200,000 tonnes of warm mix base and binder containing recycled asphalt plantings (RAP) for the project. Since warm mix asphalt is manufactured and supplied at lower temperatures than conventional hot mix asphalt, this saved over 2,000 tCO₂ in comparison, with no compromise on performance.

Warm mix technology was combined with recycled and secondary materials such as RAP and secondary steel slag aggregate to support our circular economy targets and provide multiple performance benefits. More than 7,000 tonnes of asphalt binder course containing slag aggregates were supplied to the project, providing durability through increased density and aggregate hardness, and increasing productivity by allowing the road to be trafficked prior to the surface course being laid.