

Mosaic Rail helps to deliver timesaving signalling improvements in Crewe

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Agile signalling design consultancy **Mosaic Rail** has helped to deliver an important, time-saving intervention at Crewe, advising on and coordinating the removal of conditional double red controls.

The SME provided an enhanced Train Protection and Warning System (TPWS) to replace the restrictive double reds, which were removed from interlockings at Crewe SCC and Crewe Coal Yard.

Mosaic was originally contracted by Network Rail as part of 'Project Alpha', a programme to address timetabling frailties and longer-term timetable, train regulation, and strategic structural issues across the North West and Central region.

"We were approached by Network Rail in late 2018 to investigate the timetable delays being incurred due to the signalling controls approaching Crewe," explained Mosaic's co-founder, Tim Samuel. In response, Mosaic was able to respond quickly and efficiently to Network Rail's request and commence a feasibility study.

"Within two weeks we had provided an initial feasibility report explaining the reasoning behind the signalling controls and where, with consultation and due process, these could look to be relaxed". Tim added.

Supporting the framework supplier, Mosaic undertook stakeholder consultation, liaising with the train operating companies (TOCs), freight operating companies (FOCs), and Network Rail operations involved. The replacement TPWS solution it proposed meant that existing CDR controls could be removed.

This initial feasibility work was progressed by Network Rail through their Framework through to delivery in which Mosaic again were able to provide support as a subcontractor to the framework supplier.

On 6 March 2022, the revised signalling controls and enhanced TPWS solution was signed into use. It has resulted in significant journey time improvements for trains approaching Crewe from the North on the Up Fast line.

The ultimate success of the project is testament to Mosaic's agility and flexibility – attributes that have helped it to win work with a range of tier one suppliers.

"As an SME we provide a skilled, agile and proportional team to undertake works which enables us to deliver efficiently with reduced overheads," Tim concluded.

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