

Case Study

Bicycle detection in Whitelegg Way, Bournemouth, Dorset

Bicycle detection for traffic signals in Whitelegg Way, Bournemouth, Dorset

Background

The signalised junction of Wimborne Road with Whitelegg Way (A347) in Bournemouth, Dorset is well known for being a congested and busy location, experiencing high traffic flows throughout the day. Historically, this has been a difficult junction for cyclists to negotiate as it joins one of the major routes into the centre of Bournemouth.

The junction only provided priority to buses emerging from the side road with general traffic having to wait. This resulted in cyclists being discouraged from using the junction due to the 2 minute time-lag for the traffic signals to change, unless following a bus. Cyclists would often cut the corner to avoid having to wait, ultimately putting themselves and other road users at risk.

Bournemouth Borough Council received numerous complaints and requests on how the junction on Whitelegg Way could be improved. This resulted in the Council conducting their own research and concluded with the decision to implement traffic improvements on Whitelegg Way.

Key Benefits

- Reduced installation costs
- Accurate and reliable bicycle detection
- Quick and easy to install with minimal disruption
- In-road detection capable of detecting bicycles and differentiates between vehicles and bicycles
- More cost effective than traditional inductive loops
- No loop tails or slot cutting required
- Vandalism proof

Solution

The junction was redesigned to incorporate a designated cycle lane, advanced stop line and deployment of the M100BR Bicycle Radar wireless detection system linked to the traffic signals, ensuring that the traffic signal control system was alerted to the presence of cyclists at the junction.

Detecting cyclists as they approach the junction results in a demand call at the traffic signal control system providing priority to join the main road. In this way, cyclists are now visible to the junction and they are no longer experiencing prolonged waiting periods at the junction, alleviating the temptation to take unnecessary risks such as cutting the corner.

The installation and use of the M100BR system on Whitelegg Way has been a great success, receiving positive feedback from local cyclists and other regular users of the route who have witnessed or experienced first-hand the problems this junction used to cause.

