

### Case Study

### Overhead solution delivers bus priority in Cardiff



**Cardiff City Council wanted a better way to prioritise buses at a busy exit onto the Penarth Road. AGD's 318 Traffic Control Radar provided the differentiation that was needed, without costly intrusive works.**

When a busy junction on a major route into the centre of Cardiff was upgraded to include a new pedestrian phase, Cardiff City Council needed to ensure that its bus priority measures were effective. "We wanted to avoid too many reductions in capacity now that the new pedestrian phase was active," explains Dave Kinnaird, Team Leader (Electrical) at City of Cardiff Council.

"The problem was that at this particular junction, where Paget Street meets the Penarth Road and Corporation Road, we had used two inductive loops to distinguish between buses and any other vehicles. The loops were spaced out so that it took a long vehicle to cover both of them and create a demand from the controller. However, we were finding that taxis and sometimes other vehicles were pulling up to the stop line in pairs, mimicking the length of a bus, and they would call the stage."

This particular end of Paget Street is a bus-only section, but taxis and other vehicles sometimes take a short cut and use this exit too, with no enforcement in place. "It was a case of coming up with a better way to differentiate buses from other vehicles that wasn't just based on length," continues Dave.

"We needed a quick fix solution that was easy to install and maintain. With the new all-round pedestrian stage, capacity was critical, as was pedestrian safety. We decided to trial the AGD 318 Traffic Control Radar – we wanted an overhead alternative so that if the loops went faulty we wouldn't be faced with costly and time-consuming re-cutting works."



*The AGD 318 Traffic Control Radar gives buses priority at this busy junction*

Traffic & Pedestrian Control



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### Priority made easy

The AGD 318 is ideal for differentiating road users, making priority schemes at junctions, crossings and on busways much more straightforward and cost-effective than loop-based detection. Non-intrusive, and requiring no road closures or traffic management to install or maintain, the 318 saves both time and money, and can be installed on existing traffic signal infrastructure.

Setup is easy, thanks to the wireless AGD Touch-setup with a simple, user-friendly interface that helps ensure virtual loops are positioned right first time. Using a laptop, a zone or virtual loop can be set up for single-lane detection up to 40m from the radar to look specifically for the larger radar signals returned from buses. The radar will provide a simple switched output into the road-side controller when a bus is detected, which can be used to prioritise the approach with a green phase, or extend the green phase if it is already active.

Outputs were created on the Cardiff Urban Traffic Control system for the 318 and the existing loops and these were compared against CCTV camera images. The resulting correlation between the detection was very good.

Dave and his team were very happy with the 318 Traffic Control Rader. “We have found it works very well – there are fewer disruptions to the traffic flow. It’s better for buses, pedestrians and capacity in general,” concludes Dave.

“The fact that it was pole-mounted and non-intrusive meant we could get it in place quickly. It is a great alternative to loop cutting and we would certainly consider the 318 should we come up with a similar problem in the future.”

### AGD, product solutions for Intelligent Traffic Systems



*The AGD 318 Traffic Control Radar*

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