

Case Study

Slough Borough Council

M100 SCOTT Installation

Background

Slough Borough Council and their traffic signal consultants Atkins were looking for a more cost effective solution when upgrading multiple traffic signalised junctions along the very busy main A4 dual carriageway that included extending the Split Cycle Offset Optimisation Technique (SCOOT) detection coverage. The project included 91 new detector locations in all, both on the main A4 dual carriageway and also a large number of intersecting side roads at eleven separate junctions.

Existing ducting at these sites was limited, dated and in need of repair and therefore new ducting and trenching would have been required for nearly every one of the new SCOOT detector locations.

Solution

Atkins initiated a small trial of four Clearview Intelligence M100 wireless detection sensors installed directly in the middle of four existing SCOOT inductive loops, allowing a direct comparison of data directly from the detectors, at the Urban Traffic Management Control (UTMC) level and via the outstation transmission unit logs. This clearly demonstrated that the M100 system delivered an equally reliable detection solution when compared to loops.

A key benefit of utilising the M100 wireless vehicle detection system is reduced installation costs, due to the elimination of additional ducting associated with SCOOT detection. In urban areas where SCOOT is more likely to be deployed, the sheer amount of existing utilities' pipelines/cabling generally around means such ducting would need to be hand dug, further increasing the potential costs especially with the required locations and distances from the junction of SCOOT detectors.

Additionally, as each sensor was installed quickly and easily during the daytime, even on junctions on busy main arterial routes such as the A4 in Slough, road users and residents experienced considerably less disruption to traffic and any need for night time working and long periods of traffic management was completely eliminated.

Following successful trial, the M100 system was implemented at all 91 SCOOT detectors across the eleven junctions within only six days at off peak restricted hours of the day. This enabled Slough Borough Council to realise substantial cost savings equating to tens of thousands of pounds, benefitting from greatly reduced installation times, elimination of capital outlay for ducting/trenching, significantly reduced traffic management requirements and therefore reduced traffic congestion/disruption during the works.

Key Benefits

- Reduced installation costs
- Ease of system installation, no loop cutting or trenching /ducting required
- More cost effective than traditional inductive loops
- Increased reliability / durability compared to inductive loop
- No loop tails or slot cutting required
- Eliminates the need for expensive ducting in many applications
- Retrofittable to existing sites to conveniently replace failed loop