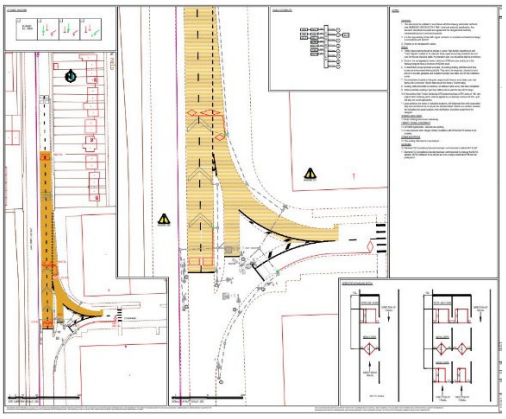
SMART VIDEO & SENSING LTD

# CASE STUDY

Client: Coventry City Council

Client Contact: Bob Foy – Acting UTMC Highway Network Manager

Site Location: Cyan Park, Coventry (A444)




## Background:

This junction is located approximately 1 mile to the northeast of Coventry city centre off the busy main A444 (Jimmy Hill Way). The A444 was built along the route of a disused railway line and provides access to the motorway network via Junction 3 of the M6 motorway which in turn, provides access to the M1, M42, M6 Toll, M5 and M40 motorways. Coventry mainline railway station is also approximately 2.5 miles distant.

The entrance to the Cyan Business Park is on one side (city approach) of this dual section with a 50mph speed limit. A decision was taken to add MOVA with conventional loops to the signalised junction at this point. A Yunex (Siemens) semi-integral Stratos Outstation with UTMC/MOVA was also to be installed.

## Civil Works

Whilst existing ducting did extend to 151m for the existing SDE loops, due to high speed road and safety clearances required a full road closure would have had to be implemented to allow for the modifications to this ducting and the installation of chambers, carriageway loop boxes and loop cutting for the required loops.
The closure of the A444 and issues of providing HGV deliveries to the industrial park of Cyan Way made the whole project difficult to deliver using traditional loop detection.

## Technology:

Coventry City Council sought to explore other options for the detection at this junction particularly above ground detection. Comparisons were made between the AGD318 radar and the smartmicro™ UMRR-11 radar.

The AGD318 is limited by only covering a single lane and the detection zone can spread as distance from the detector increases leading to greater chance of overlap at the IN-det location therefore they are not ideal for larger junctions with long multi-lane approaches.

The smartmicro™ detection offers all the advantages of the AGD318 (pole mounted, no cutting into carriageway, no ducting) whilst being able to cover multiple lanes on an approach from a single radar unit. The future addition of the data collection capability of the smartmicro™ radar when paired with the SVS Novus data aggregator provided a potential added bonus as an 'after market' addition. This was seen as a technically advanced solution and more cost-effective, consequently, the UMRR-11 model was chosen.

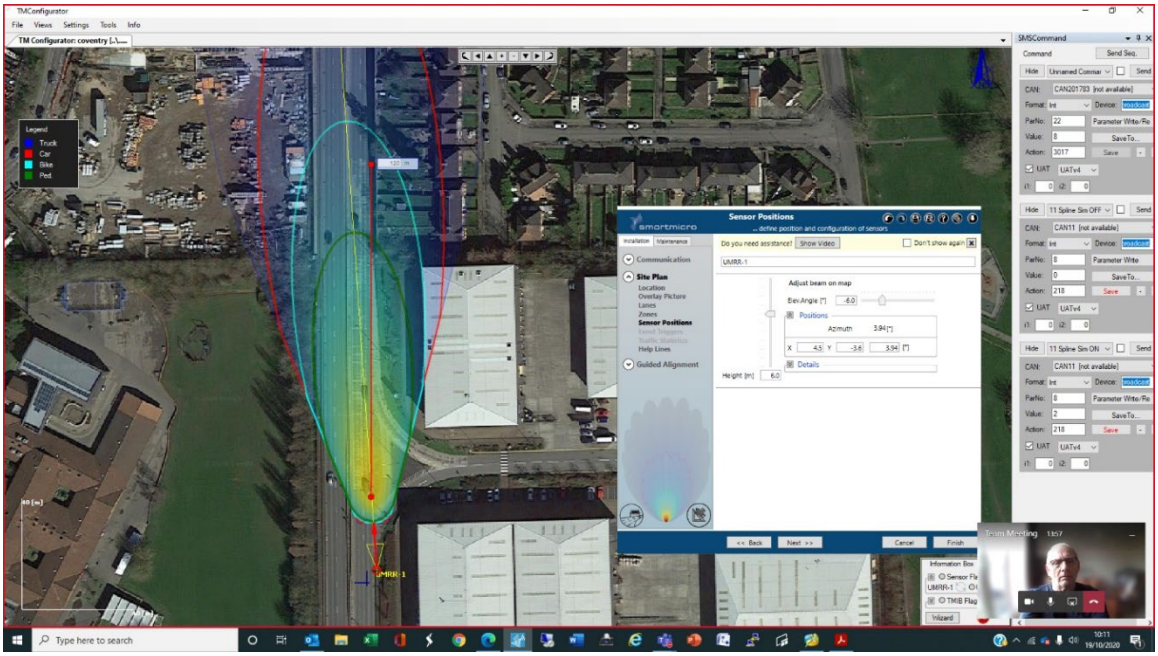

smartmicro™ UMRR-11 multi-lane radar

## Costs

An estimation of comparative costs for the Cyan Business Park junction versus issues of costly ducting and traffic management (TM) for the installation of conventional loop detection is reasonably straight forward. We would have expected the modifications to the existing duct system and installation of the loops with associated Traffic Management, Diversion Route would have cost in the region of £25K - £30k with significant disruption to the Highway Network and inconvenience to Cyan Park Businesses. The smartmicro™ equipment purchase and installation cost was in the region of £5k. We spent a couple of days preparatory work to check and install the dedicated multicore cable at site and the SVS engineers installed and commissioned one radar in less than half a day on an existing 4m secondary pole off the highways with the addition of a 3m pole extension. There was no requirement for TM other than locally at the signal pole.

## Future Proofing

With the installation of the smartmicro™ UMRR-11 radar, future loop cutting is no longer required to replace damaged/defective or loops following carriageway resurfacing.




**smartmicro™ Traffic Management Configurator 'plot' of the site**