

# WA Smart Freeways vs UK Smart Motorways

## Overview

In 2020, Main Roads delivered one of the world's most technologically advanced Smart Freeway projects which included an All-Lane Running (ALR) section from Canning Highway to Narrows Bridge on Kwinana Freeway northbound. Ever since, we have become the benchmark for other smart freeways, highways, or motorways to match.

In April 2023, the UK Government announced it will cancel all new All-Lane Running (ALR) Smart Motorway construction projects as they could not meet similar benchmarks as those adopted in Western Australia within the project constraints.

UK Smart Motorways have received a lot of publicity given this ban, but it is important for the public to understand the significant differences between UK Smart Motorways and Smart Freeways in WA, and the safety measures taken by Main Roads in implementation of different types of Smart Freeways in our state.

## Key messages

- Whilst some of the technologies and techniques are similar, there are significant differences between Smart Freeway operations in the UK and WA.
- Planning for WA's Smart Freeways is about ensuring safety is at the forefront of the design of the freeway, that technology and operations are based on learnings from the UK and other Australian jurisdictions.
- In the UK, the primary concern with Smart Motorways is where the emergency stopping lane (also known as hard shoulder) is replaced to become a running lane as part of the Smart Motorway. These are known as All-Lane Running (ALR) and Dynamic Hard Shoulder (DHS) sections which make up the majority of the UK's Smart Motorways network.
- In WA, the majority of the Smart Freeway network has, and will continue to have, an emergency stopping lane, in addition to emergency stopping bays. Dynamic Hard Shoulder (DHS) is not adopted in WA and All-Lane Running (ALR) is only used where there is no physical space available for the provision of an emergency stopping lane. This is currently limited to Kwinana Freeway northbound between Canning to Narrows Bridge. There are no ALR sections included within the scope of Smart Freeway Mitchell Southbound project currently in construction.
- Where ALR is implemented in WA, our Smart Freeways include extensive safety measures specifically developed to mitigate concerns raised in the UK, including:
  - Frequent Emergency Stopping Bays (approx. every 600m), this equates to one bay every 21.6 seconds at a speed of 100km/hr, with clear visible advance signage
  - Stopped Vehicle Detection within Emergency Stopping Bays

- Electronic message boards to advise motorists of vehicles exiting Emergency Stopping Bays in the ALR section, and hence manage safe merging when required, in conjunction with overhead electronic signs,
- Automatic Incident Detection on the freeway mainline,
- Overlapping CCTV coverage,
- Dedicated Incident Response Service 24/7,
- Operational procedures to deal with emergencies and degraded operations,
- Queue Detection / Queue Protection to control traffic speed.