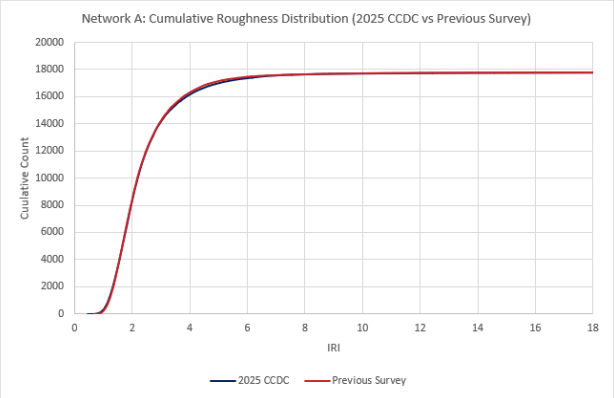
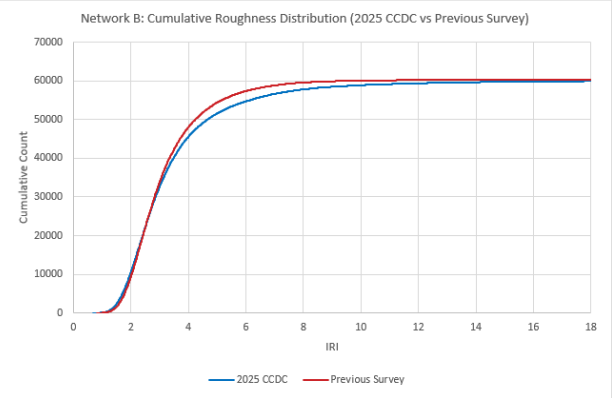
Consistent Condition Data Collection – changes in roughness data

July 2025

Roughness condition data collection surveys are now complete for FY24/25, and approved data has been uploaded into AWM systems for each Road Controlling Authority (RCA). Some RCAs will see a change in their network roughness results this year when data from the CCDC survey is compared with previous years.

As demonstrated in the examples below, some networks may show very little change from previous surveys, while other networks may have experienced changes in their network roughness profile.





FACTORS IMPACTING THE DATA

These changes may be a result of some, or all, of these factors:

1. The equipment used to collect the CCDC data is state of the art, high precision scanning laser technology. In the past there has been a wide variety of devices used for roughness surveys, from bump-integrators to laser-based systems. These systems all operate and measure in a slightly differently manner, with variability between systems.

2. The CCDC equipment has been rigorously and independently validated before the start of the surveys and regularly during the survey period. The CCDC team has focused on ensuring the equipment is accurate and repeatable, and the five CCDC vehicles are reading consistently.

3. Different survey suppliers have in the past had slightly different methodologies and algorithms for the processing of data. RCAs have also had different specifications. For example, at low speeds (generally less than 20km/h) where laser-based systems are unable to measure accurate roughness, some RCAs have aborted all data, some have applied an estimated roughness value, and some have accepted the roughness reading without any event code flag. With the CCDC surveys, the data collection methodologies and processing algorithms have been standardised, for consistency across all survey vehicles and between all survey suppliers.

4. Event codes have historically varied between RCAs, with no standard set of event codes consistently applied across the country. This means that the roughness readings that are included in the Smooth Travel Exposure (STE) calculation has varied between RCAs. For example, some RCAs have applied an event code for every intersection, while others have not. All CCDC surveys have applied a common set of event codes across all RCAs, and a documented methodology to be followed by all survey operators so there is common understanding.

5. With any survey of this type, there is always some variability between years (and within each year), even when the same vehicle and equipment is used. For example, this could be associated with a change in the drive line.