



CASE STUDY

M6 Toll Road Rejuvenation



 **HyperLine™**

 **HyperLine™ ULTRA**

 **LifeLine™**

Introduction

The M6 Toll carries over 50,000 vehicles every day, overseen by a dedicated team of more than 150 staff. During the planning of their annual line marking maintenance programme they faced uncertainty. Understanding the true condition of line markings across their network was essential to making informed decisions about the scope and approach of the works.

The team needed to determine whether patching would suffice or if a more comprehensive solution was required. With weather conditions posing a risk to delivery and the need to coordinate specialist traffic management, the planning phase was critical to the success of the project.

This case study examines how QMS supported the M6 Toll in overcoming these challenges to deliver a successful network-wide line marking programme.

Data-Driven Asset Management - LifeLine™

To overcome the challenge of understanding the existing condition of the site. The M6 Toll needed to thoroughly survey the current line markings to assess the extent of repairs required this was completed using QMS.

Objective Data: It uses a mobile retro-reflectometer with the latest Laserlux LLG7 equipment, driven at traffic speeds.

Precision: It scans the road over 400 times per second and is GPS enabled, precisely measuring the visibility and retro-reflectivity levels of all markings.

The accurate retro-reflectivity performance and asset condition mapping enabled the team at the M6 Toll to weigh out their options and after evaluating the wear and tear deciding to respray the entire area for a more consistent and durable finish instead of patching.

Post-installation retro-reflectivity results	
North Carriageway	
NSE (Near Side Edge)	129 mcd
Lane 1-2 divide	187 mcd
Lane 2-3 divide	133 mcd
South Carriageway	
NSE (Near Side Edge)	148 mcd
Lane 1-2 divide	174 mcd
Lane 2-3 divide	145 mcd

High-Performance, Low-Carbon - HyperLine™

The M6 Toll technical team selected QMS award-winning products to deliver exceptional performance and environmental benefits:

QMS HyperLine™ (edge line):

A sustainable solvent-free acrylic marking rejuvenation system offering 500+ mcd/m²/lux on application and over 200mcd after 24 months, with longevity of over two years.

QMS HyperLine™ ULTRA (lane line):

Enhanced performance providing superior visibility and guidance, especially during wet conditions.

Both systems are cold-applied, with no gas or diesel burnt for the installation process. The rapid installation speed and environmental efficiency of QMS HyperLine™ products significantly reduce carbon dioxide emissions by 81% compared to traditional thermoplastic spray applications.

Installation Summary

Product		Carriageway length
QMS HyperLine™	Edge Line	58,943m
QMS HyperLine™ ULTRA	Lane Line	35,874m

Delivery

Weather posed the greatest risk to delivery. To mitigate this, works were strategically scheduled for July 2025, securing six consecutive dry nights to complete the job without interruption.

Coordinating with traffic management specialists was critical to ensure safety and minimise disruption. QMS provided a complete one-stop-shop solution, organising 12C Mobile Traffic Management through specialist sub-contractors, allowing the client to focus on their core operations while QMS managed all aspects of delivery.

The seamless process from start to finish included initial consultation, product presentation, and excellent communication throughout every stage, ensuring the client felt genuinely supported from initial contact through to project completion.

"It all started with a free pair of socks at our first meeting—but it's the long-standing relationship that kept us coming back. We've worked with QMS for several years and value their deep understanding of our operational needs. Unlike other contractors, QMS consistently develops market-leading solutions that align with our goals and push the industry forward.

QMS is a well-run business that delivers practical solutions to real problems. Their expert advice, professionalism, and commitment to quality make them a standout partner in the industry."

Philip Goodlad,
Capital and Project Delivery Manager
M6 Toll



Environmental Benefits

Traditional road markings present a significant environmental problem, with studies revealing they contribute a total of 7% of global microplastic pollution (Boucher, J. and Friot D. 2017). QMS directly combats this by offering a superior, sustainable alternative.

The QMS HyperLine™ system is cold-applied, meaning no gas or diesel is burnt during installation, drastically reducing operational emissions. Furthermore, its durable, low-erosion composition, which includes recycled glass beads, prevents microplastic fallout. This resulted in a phenomenal project impact for the M6 Toll:

- **47,311kg** (47.3 tonnes) of CO₂ reduced
- **43,616kg** (43.6 tonnes) of potential ocean microplastics reduced

The microplastic savings is equivalent to **10,904,080** plastic straws diverted from the environment.

CERTIFICATE

Proudly presented to: **M6toll**

For the successful Environmental Reduction of:

47.3 Tonnes CO₂
Embedded Carbon

43.6 Tonnes OMP
Ocean Microplastics

Following the completion of:

17,170m² of **HyperLine**
During the 2025 application season

Greg Clark
Managing Director

Results

Following completion of the works, reflectivity measurements demonstrated exceptional performance across the entire network, with all measurements significantly exceeding the 150mcd minimum standard:

Post-installation retro-reflectivity results		
North Carriageway		
NSE (Near Side Edge)	326 mcd	+153% improvement
Lane 1-2 divide	424 mcd	+127% improvement
Lane 2-3 divide	413 mcd	+210% improvement
South Carriageway		
NSE (Near Side Edge)	304 mcd	+105% improvement
Lane 1-2 divide	422 mcd	+143% improvement
Lane 2-3 divide	407 mcd	+181% improvement

The results demonstrate that all line markings on the network are now fully compliant and performing at exceptional levels, more than doubling the minimum performance threshold across the network.

"The service QMS provided enabled us to triple our originally planned scope for the year. This not only accelerated our delivery timeline but also significantly reduced disruption to our customers. With fewer delays and lower risk to our road workers, we achieved full compliance across the network—something we typically only manage for a quarter of the road annually."

Philip Goodlad,
Capital and Project Delivery Manager
M6 Toll



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more here*

