

M54 Junction 4-2

Client:
CRL

Bay Replacement and Repair

Project Overview & Scope

Gill Civil was commissioned by CRL to undertake critical concrete bay replacement works on the M54 motorway between Junctions 2 and 4. The scheme involved replacing up to 20 damaged concrete bays per weekend over an eight-week programme, utilising saw cutting, controlled breakout, reinforcement drilling and grouting, crack stitching, and reinstatement with rapid-strength concrete mixes. The works were essential to restore structural performance and extend the service life of this key section of motorway. Gill Civil has developed a long-term relationship supporting works on the M54, providing ongoing maintenance solutions over multiple years.

Challenges and Execution

Operating on a high-traffic motorway required all works to be completed overnight and across weekend closures to avoid disruption to weekday traffic. Tight possession windows allowed only five shifts per weekend to complete each phase, demanding precise planning and efficient sequencing. Rapid-strength mixes including P45OHL and PQ-X were used to achieve early strength gain, enabling pavement reinstatement, finishing, and curing within the restricted timeframe while maintaining quality and compliance. Experience gained from previous schemes supported efficient delivery and continuous improvement across repeat interventions.

Benefits and Outcomes

The works were delivered safely and efficiently, restoring pavement integrity and improving long-term durability while minimising disruption to motorway users. The project was completed ahead of schedule, successfully avoiding two full weekend closures and maintaining programme certainty on this key West Midlands transport route.

