



Roads: National Highways Test Centre Case Study

Case Study: National Highways Test Centre

Independent Validation for Strategic Road Use

Client: National Highways

Partners: Rosehill Polymers, Morgan Sindall

Location: Moreton-in-Marsh Test Centre

Application: Full-scale performance testing for highway drainage

The Challenge

- To assess the suitability of modular drainage systems for use on the UK's strategic road network, National Highways required independent performance validation under simulated extreme rainfall conditions.
- Demonstrating not only hydraulic capacity but also structural resilience and integration potential with existing drainage infrastructure.



CASE STUDY



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The Solution

- A 60-metre installation of the system was constructed alongside a four-lane carriageway at the Moreton-in-Marsh Test Centre.

The installation design consisted of:

- One trough unit and three full-height stackers.
- 200–300mm tapered filter stone cover.
- Connection to a standard Type 7 chamber using the square to round connection box of the modular drainage system.



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Results

- Replicated integration with conventional methods and infrastructure assets.
- Simulated extreme weather event, 11,000 litres of water over a 22-minute period – fully monitored.
- Evidenced minimum road run-off flow rate: 679.5 litres/min (40.77 m³/hr) handled per linear metre of system.

Contact

T. 0203 189 1468

E. info@civilwatermanagement.com

