

# Manchester Airport - Juliet 3 Taxiway

Client:

Allied Infrastructure Management Limited

## Full-Depth Taxiway Reconstruction

### Project Overview & Scope

Gill Civil undertook a full-depth reconstruction of Juliet 3 Taxiway at Manchester Airport to remediate repeat failure areas within the asphalt pavement. The scheme covered 652m<sup>2</sup> and comprised a 110mm thick WLC layer overlaid with 320mm thick PQC, supported by UKAS-accredited concrete testing and an on-site batching plant to ensure consistent quality control. Works were carried out during daytime hours, requiring close coordination with live airfield operations.

### Challenges and Execution

Remediating recurring failure areas required careful investigation to ensure the full-depth reconstruction addressed the root cause rather than the symptoms of previous distress. Operating an on-site batching plant demanded tight quality control, with UKAS concrete testing carried out throughout to verify strength and consistency across all 652m<sup>2</sup> of new PQC and WLC. Daytime working within the live airfield environment required close coordination with airport operations to maintain safe access and minimise disruption throughout the programme.

### Benefits and Outcomes

The full-depth reconstruction successfully addressed recurring pavement failure areas, restoring long-term structural performance to Juliet 3 Taxiway. The 320mm PQC layer provides a high-strength, durable surface designed for heavy airfield loading, while the 110mm WLC layer improves load distribution and overall stability. This robust pavement system significantly reduces the likelihood of future defects, offering improved durability and resistance to structural fatigue under repeated aircraft loading, ensuring continued safe and efficient airfield operations.

