

London Luton Airport

Alpha Taxiway Extension

Supply, Install & Commission

Turnkey Solutions

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London Luton Airport Turnkey Solution

Alpha Taxiway Extension

Project Key Facts

Client Name | Ryebidge
Location | London Luton Airport, United Kingdom

Dates | Jan 2026

Project Overview

London Luton Airport undertook a significant airfield infrastructure upgrade to support evolving operational requirements and improve the efficiency and safety of ground movements. As part of a wider airfield development programme, the project focused on the introduction of a new taxiway configuration alongside a comprehensive upgrade of the aeronautical ground lighting (AGL) systems and control infrastructure.

ATG Airports was selected to deliver the AGL and control system elements of the project, providing a fully integrated solution covering design support, supply, installation, and commissioning. The scope of works was centred on enabling a new taxiway layout while ensuring seamless integration with existing airfield systems and maintaining compliance with current aviation standards.

The project included the installation of a new taxiway centreline lighting system, incorporating lead-on and lead-off lighting to guide aircraft safely between taxiways and the runway. In addition, new stopbar systems were installed to enhance runway incursion prevention and improve operational control during low visibility conditions. The lighting circuits were designed using an interleaved configuration for taxiway edge lighting, providing improved resilience and operational reliability across the network.

A key element of the upgrade was the installation of new Micro200 constant current regulators (CCRs), ensuring stable and efficient power supply to the upgraded lighting systems. These were carefully integrated into the existing electrical infrastructure, providing enhanced performance and supporting future scalability of the airfield lighting network.

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As part of the visual aid improvements, the project also delivered a full transition to LED lighting technology across the newly installed systems. The use of LED fittings provides improved brightness, consistency, and reliability while significantly reducing energy consumption and maintenance requirements. This aligns with the airport's broader objectives around sustainability and operational efficiency.

In addition to lighting, new LED IR858 airfield signage was installed to support the extended taxiway layout. Existing signage along Taxiway Alpha, between A2 and A6 stopbars, was also upgraded through the replacement of sign fascias to reflect the reconfigured layout. This ensured clear, accurate, and compliant guidance for pilots navigating the updated airfield environment.

To support the new infrastructure, the airport's Airfield Lighting Control and Monitoring System (SmartControl) was upgraded to incorporate the revised taxiway layout and associated lighting systems. This enhancement provides air traffic control with improved visibility and control of the airfield lighting network, enabling more efficient management of aircraft movements and rapid response to operational requirements.

The works were carefully phased and coordinated to minimise disruption to airport operations, ensuring that the airfield remained fully functional throughout the project. Close collaboration between all stakeholders enabled a smooth delivery, with all systems successfully tested, commissioned, and integrated into live operations.

The completed project delivers a range of operational and commercial benefits for London Luton Airport. The new taxiway layout improves airfield capacity and aircraft flow, reducing congestion and enhancing overall efficiency. The upgraded LED lighting systems provide increased reliability, improved visibility for pilots, and lower lifecycle costs. The introduction of modern CCRs and an enhanced control system ensures the infrastructure is future-ready and capable of supporting continued airport growth.

This project demonstrates ATG Airports' ability to deliver complex, integrated AGL solutions within live operational environments, combining technical expertise with a strong focus on safety, efficiency, and long-term value.



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