

**Bristol International Airport**

**East Apron Expansion**

**Supply, Install, Commission**

**Turnkey Solutions**

# Bristol Airport Turnkey Solution

## East Apron Expansion

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### Project Key Facts

Client Name | Ryebidge

Location | Bristol International Airport - United Kingdom

Dates | Jan 2023 - Feb 2024

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In response to the evolving needs of modern aviation and the increasing demand for efficient ground operations, Bristol Airport embarked on a transformative project to enhance its airfield infrastructure. The primary objective was to create two new aircraft stands and introduce a taxiway extension to facilitate smoother operations.

#### Airfield Lighting

Central to the project aims was the construction of a new taxiway, designated as Zulu, on the east apron taxiway, to accommodate two additional aircraft stands. This ambitious undertaking required comprehensive alterations to existing taxiway switching arrangements and the upgrade of the existing Airfield Ground Lighting control system

The scope of work encompassed the supply and installation of LED taxiway centreline and stopbar lights, alongside their associated transformers, primary, and secondary connectors. Leveraging a combination of new and existing AGL circuits, routing through pit and duct systems ensured seamless integration with existing Constant Current Regulators (CCRs) located in the substation. Additionally, LED information signs (IR858i) along taxiway routes and apron areas provided to aid guidance along the new route, enhancing safety and efficiency.

As part of the airport's broader upgrade initiative, atg airports spearheaded an LED upgrade of the lead-on/lead-off taxiway Alpha center line AGL lighting system, complemented by upgraded transformers and connectors.

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Furthermore, to optimize aircraft routing, the implementation of new Individual Segment Control for existing taxiway lighting was imperative. The installation of requisite hardware within the taxiway infrastructure, coupled with integration into the AGL control system via PLC cubicles, exemplified ATG Airports' commitment to innovation and collaboration.

Throughout the project lifecycle, ATG Airports collaborated closely with key stakeholders, including NATS, Bristol Airport, and RYE Bridge, to ensure alignment with operational requirements and regulatory standards. The provision of functional design expertise for the AGL Control System underscored ATG Airports' dedication to delivering tailored solutions that not only meet but exceed client expectations.

#### High mast lighting

In pursuit of enhancing safety and operational efficiency, a comprehensive high mast lighting solution was also initiated on the apron. ATG Airports delivered a turnkey design and installation package, comprising six additional high masts equipped with some advanced features.

Each high mast boasted a rising and lowering carriage mechanism, facilitating ease of maintenance. Two floodlights per mast, complemented by obstruction lighting, ensuring optimal illumination of the new aircraft stands. ATG Airports' expertise in high mast lighting installation not only elevated visibility on the new aprons but also met the overall safety requirements for apron operations.

#### FEGPU's charging

ATG Airports provided the installation of additional electrical supplies housed within feeder pillars, strategically positioned to accommodate the new FEGPU (Fixed Electrical Ground Power Unit) charging points mandated by the airport.

The scope of work included the deployment of submain cabling, distribution equipment, and feeder pillars to serve both new aircraft stands. Through planning and execution, ATG Airports integrated these enhancements, bolstering Bristol Airport's capability to support modern aircraft operations while reducing environmental impact.



STANDS  
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