

London Luton Airport

Design, Supply, Install, Commisison

Turnkey Solutions

New Approach System - Case study

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London Luton Airport Design & Install

Case Study - New Approach

Project Key Facts

Client Name | VolkerFitzpatrick / Kier JV

Location | London Luton Airport,

Dates | Jun 2019 - Nov 2019

Total Project Value | £150K

The Luton DART (Direct Air-Rail Transit) project is designed to integrate rail passengers arriving at Luton Parkway station, directly with London Luton Airport by means of a double shuttle automated people mover.

With the shuttle route planned to open in 2021 there are many challenges for the main contractor to find solutions for and overcome. One of the challenges foreseen is that the proposed route of the shuttle encroached onto the 08-approach end of the runway. To ensure that the correct lighting pattern was to keep compliant with international standards, an innovative solution was needed which not only enabled the lights to be positioned correctly, but also have easy access for maintenance purposes. The works were contracted to atg airports as a design and build package.

When reviewing the plan, it was noticeable that the positioning of several lights on the main approach crossbars fell over the shuttle route. With limited space available, standard approach masts would not be feasible to provide the solution. Also, from a maintenance perspective the shuttle service could not be stopped while engineers completed routine works, therefore it was necessary to design bespoke masts that could serve all requirements.

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On the drawing board, several ideas from the atg design team were discussed and the final solution for the approach masts was agreed. The approach masts would incorporate a rotating base and also a hinged section, allowing for the crossbar to swivel parallel to the shuttle route and enable it to be lowered for maintenance purposes. Part of the design was a cantilever that allowed for the approach lights to extend over the shuttle route when in the vertical position.

To accommodate the new position of the mast and associated agl primary, secondary cabling and isolating transformers, a new pit and duct system had to be installed, with atg assisting in the design and implementation. With the design of both the masts and the pit and duct approved by the client, the approach masts were manufactured, delivered to site and the installation team set about installing the masts to the newly constructed bases.

As is becoming common practice these days at busy airports, all the works had to be completed with minimal disruption to the operation of the airport. The project was completed as per the scheduled time table and within the budget requirements.

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