

Case Study

Client HETCo JV (Laing O'Rourke/Ferrovial Agroman)

Project date 2010-2014

Budget £900M

Project: Heathrow Terminal 2 – Concourse A

The construction of a new terminal building at Heathrow to replace the historic Queens Building terminal constructed in 1950's. The new £900M Foster & Partners designed terminal provides new accommodation for Star Alliance airlines operating from Heathrow Airport.

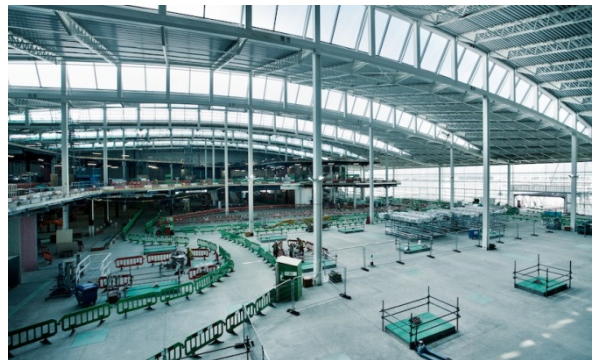
Services provided

- Civil & Structural Engineering Design
- Geotechnical Engineering
- Design & Construction Support
- Structural Self Assessment Assurance
- Project CAD Compliance Service

Description of project

The scheme consisted of the construction of the main terminal building along with associated airside structures including passenger transfer structures (FLaNs), a baggage transfer bridge and courtyard vertical circulation structures.

The main terminal consists of a concrete basement below apron level with steel superstructure above providing passenger facilities, baggage handling and retail.



Merebrook undertook the detailed design of the above structures and continue to provide construction support to the completion date of November 2013.

The terminal design originally included a piled foundation solution however due to the plan size of the building and the presence of the London Underground Piccadilly Line below the building footprint, a geotechnical review enabled a raft foundation to be utilized.

The steel superstructure is 220m long by 200m wide. Stability is provided by 12 vertical service cores, in tandem with the composite floors plates. The roof has a curved profile constructed using vierendeel girders set to a north-light configuration and underdrawn with a fabric ceiling.

Merebrook provide all civil and structural design for the project and review of sub-contractor designs that affect the terminal structure including the façade, MEP and baggage infrastructure.

