

Case Study

Project

Heathrow Terminal 2 –
Concourse A

Client

HETCo JV (Laing O'Rourke/
Ferrovial Agroman)

Budget

£900M

Overview

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.

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.

IDOM undertook the detailed design of the above structures and continued to provide construction support up to the completion date. 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. IDOM 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.

Services provided

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

