



Holiday Inn Bristol Airport, Wrington, Somerset



This £3 million construction project featured a three storey building with 80 bedrooms, restaurant, bar and conference centre for the hotel proprietor Lapwing Limited. The client and the contractor negotiated the building contract as they had worked together previously on other hotels. The Project Manager was Wilson Large.

KB² were selected initially by the project architect, Stride Treglown based on their experience of working on projects which required complementary skills in civil and structural engineering. KB² were then novated to the design and build contractor, TNV Construction Limited.

Hotels can often be designed on the basis of modular off site construction methods as there is much repetition layouts, but in this case the contractor preferred to use traditional construction methods. The structure is a steel frame supported on pad foundations with precast concrete floors and a timber truss rafter roof. The internal and external walls use a metal stud frame system with Sto render providing the external finish. Stability of the building is achieved using a series of fixed bays combining moment connections and diagonal bracing.

Set in a rural location a major constraint on the project was the disposal of the increased amounts of surface water and foul drainage. KB²'s vast experience of below ground drainage helped overcome the drainage challenges this project presented. Having studied various alternatives KB² disposed the foul water by taking it 3 kilometres up and over a local hillside by means of a pumped main through an agreed easement to a public foul water sewer.

Having a clear understanding of the Contractor's preferred engineering methods enabled KB² to deliver solutions to assist this relatively fast-track project.



“KB² demonstrated a complete understanding of the Design and Build process and provided a cost effective and pragmatic integrated structural and civil engineering solution.”

Mike Richards, Project Manager -
Wilson Large

KB² Consulting Civil & Structural Engineers

Providing engineering certainty by delivering intelligent designs, minimising project risk and applying principles of sustainability.

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