

## KNEBWORTH HOUSE



Over the years The Morton Partnership has carried out various projects at Knebworth House. These include work on the water tower, retaining walls in the courtyard, the Round Tower and the Watchman's Tower, along with other structures within the Estate and the main house. Our role for the majority of these projects has been as Structural Engineers, providing advice in connection with repairs to the fabric, including replacement of cementitious renders with lime based materials.



## PRIVATE RESIDENCE, HADLEYWOOD

Client: Opticrealm

Status: Completed

Value: Confidential

Role: Structural Engineers



This new build private residence is part subterranean in a quiet area of Hadleywood, bordering London and Hertfordshire. It is sited on land to the rear of an existing property and is tight to the boundary line of the adjoining property.



We worked closely with the Architect to provide a structure suitable to exclude water from the house and provide the large spans he wished to achieve. We opted for a reinforced concrete structure on piled foundations. We designed the reinforced concrete elements using a finite element design package to achieve the slab spans requested by the architect. The concrete has a water resistant additive and the earth facing elements have an external Bentonite based membrane.



## HISTORIC BUILDING SPECIALISTS



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As a Practice we pride ourselves in our national reputation for providing innovative, low intervention and cost-effective solutions related to all types of structure. The unique nature of many buildings and structures requires that we offer a bespoke service to our Clients with our involvement ranging from preliminary surveys to undertaking full design and project management.



### JUBILEE BRIDGE, CHRIST CHURCH COLLEGE

We were appointed to produce options for a new bridge to provide more suitable pedestrian access from Christ Church Meadow to Christ Church's sports ground over the River Cherwell.

**Client:** Christ Church College, Oxford

**Status:** Planning Approved

**Value:** TBC

A comprehensive report was produced considering the design options in relation to the following:

- Consent requirements
- Accessibility
- Budget
- Construction Practicalities
- Security
- Environmental / Ecological issues
- Visual impact
- Maintenance / durability

The final design is shown, the chosen form of construction being curved steel circular hollow sections with an oak boarded walkway.



### QUEEN'S DIAMOND JUBILEE GALLERY, WESTMINSTER ABBEY

**Client:** Dean and Chapter of Westminster Abbey

**Status:** Complete

**Value:** £22.9m

**Role:** Structural Engineers for new gallery.

Our work involved detailed pre contract investigations of the triforium floor structure, which sits over the aisle vaults to the main floor of the abbey. Advice was also provided on secondary elements such as the new balustrading around the triforium openings, fixings of monuments to existing walls and with the museum exhibition fit out installation and exhibits. We also engineered the first new opening in the abbey for 600 years through the external triforium wall to the new staircase situated in Poets' Courtyard.



### Our Services:

- Planning Applications
- Feasibility Studies
- Structural Monitoring
- Project Management
- Contract Administration
- Grant Advice
- Finite Element Analysis
- Public Inquiries
- Lottery Project Advice and Applications
- Technical support for Insurance claims
- Historic Building Consultancy
- Structural Consultancy, Advice, Surveys & Reports
- Technical Drawing & CAD
- Structural Calculations
- Building Regulations Advice & Applications
- Listed Building Advice & Applications
- Historic Bridge Checking & Advice
- Conservation Engineering Lectures & Advice

Our Team offer a rapid and efficient service whatever the project size. With a portfolio of over 20,000 projects across the United Kingdom we can provide the expertise required.



### HERITAGE SKILLS CENTRE, LINCOLN CASTLE

The Centre is a new-build single storey sustainable structure set within the grounds of Lincoln Castle, a Grade I Listed Building and Scheduled Ancient Monument. The project ran alongside the broader £19.9M *Lincoln Castle Revealed Project*, for which the Practice has also been appointed by Lincolnshire County Council.