

# Renovation to Birdsall House



Location:  
Birdsall House, Malton,  
North Yorkshire



Client:  
Lord & Lady Willoughby



Architect:  
Ben Stone Architects



Value:  
£500k



Civil Engineering

Structural  
Engineering

Building Consultancy

Geotechnical and  
Geoenvironmental  
Engineering

Project Management

Specialist services

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Birdsall house is a Grade II\* Listed Building. Lord and Lady Willoughby required family kitchen making larger and repairs to the ball room ceiling.



A major endeavour thanks to two-inch thick limecrete 'pugging' in the floor build ups.

## Engineering and Design Factors

The old back kitchen and five small rooms have been turned into a large living kitchen with a Lacanche range. The ceiling in the ball room was bowing under 110 times the maximum allowable stress and was in danger of falling in on the ballroom below, destroying ornate plaster moulding. The design solution involved installing steel beams to provide both temporary and permanent works support to the fragile listed fabric above.

## Description of the Works

Alan Wood & Partners were commissioned as the Structural and Historic Conservation Engineer to advise on the structural aspects of these works and provide all necessary design advice and a report on heritage considerations, and to support a Listed Building Application.

## Core services

Structural Engineering / Conservation and Heritage

## Sectors

Conservation and Heritage / Residential