

## Case study

# Refurbishment at Birdsall House

Birdsall House is a Grade II\* listed building. Lord and Lady Willoughby required the family kitchen making larger and strengthening works to the ballroom ceiling. A major endeavour thanks to two-inch thick limecrete 'pugging' in the floor build ups.

The old back kitchen and five small rooms have been turned into a large living kitchen with a Lacanche range. The ceiling in the ballroom was bowing under 110 tonnes, the maximum allowable stress, and was in danger of falling into 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.

Alan Wood & Partners was 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.



Location:  
Malton, North  
Yorkshire



Client:  
Confidential



Architect:  
Confidential



Value:  
£ Confidential



Structural  
Engineering

Conservation  
and Heritage

Engineer/  
Manage/  
Deliver/