

Restoration of Grade I Listed Wentworth Woodhouse



Location:
Rotherham, South
Yorkshire



Client:
Wentworth Woodhouse
Preservation Trust via
Woodhead Group



Value:
£10 million



Civil Engineering

Structural
Engineering

Building Consultancy

Geotechnical and
Geoenvironmental
Engineering

Project Management

Specialist services

Wentworth Woodhouse, the largest private home in the UK, has five miles of corridors, a 606-foot façade, and over 250,000 square feet across more than 300 rooms.

In 2017, the building sold for £7m – with an estimated £100m restoration bill attached. A huge feat for building surveying in Yorkshire, along with specialist contractors, this landmark project was set to take a similar scale as the Buckingham Palace restoration.

The stone building was built in 1725 by Thomas Wentworth, who later became the Marquess of Rockingham. Over time, more buildings were added as each generation inherited and added their own stamp on the home. Wentworth Woodhouse passed to Earl Fitzwilliam in 1782 – and it remained in the Fitzwilliam family until the 8th Earl died in 1948. The estate was vacated in 1950, used as a school until 1986, and then privately sold in 1988 and 1999 to private families, before the Wentworth Woodhouse Preservation Trust bought it in 2017.

The buildings had been neglected for decades, asbestos fell from ceilings, and the Grade I listing meant additional preservation requirements for any works carried out. The Wentworth Woodhouse Preservation Trust set to work on the massive 20-year renovation project, with the first £7.6m in funds from a Government grant.

Engineering and Design Factors

One of the most important aspects of the project management of the Wentworth Woodhouse restoration was the coordination of specialist contractors. Heritage specialists, roofing experts, civil & structural engineers all pitched in to get the ball rolling. Construction consultancy services like those provided by Alan Wood are essential for projects like this: a full and detailed overview of restoration projects is important to understand the overall cost, strategy, and repair requirements before a single tile is replaced. Without a clear plan, often created years before any work is carried out, a restoration project can go over budget, over schedule, and miss essential elements (such as the specialist heritage repairs required on the roof balustrades at Wentworth Woodhouse).

The Preservation Trust started working with civil engineers and building surveyors before the estate was even purchased, to clarify the total repair bill required. Specifically, Alan Wood and Partners provided temporary works support to the Woodhead Group who had been selected by the Wentworth Woodhouse Preservation Trust (WWPT) to carry out the repair, restoration and replacement of the building's 1500m² (16,000+ square foot) roof, as part of its 25-year Masterplan (Phase 2). The work saw delivery of major conservation work over the next two years supported by AWP's Structural engineers with regards to the temporary works. On a project of this scale then the temporary works design/installation form a vital part of the successful delivery.

Description of the Works

Urgent repairs were conducted first to prevent further decay and collapse of essential elements such as roofs and gutters. Short-term solutions were immediately installed across all buildings to prevent further damage, while a long-term plan was put in place. The £7.6m grant was split into three contracts to specialist heritage and roofing contractors. Each contractor was responsible for a section of the mansion roof repairs, enabling the works to be completed simultaneously to protect the interiors from further roof damage as fast as possible. The first contract completed in 2020: The Bedlam Wing, Chapel, and The Riding School roofs were fully repaired by specialist heritage contractors. By 2021, the second contract for full repairs to the roofing of the eastern section of the Long Gallery as well as the house's central block with its famed East Façade was complete. Delays occurred during the first Covid-19 lockdown but the project was back on track within weeks with new health and safety rules across the site for safe working.

The restoration project continues to focus on longer-term repairs now the roof is repaired.

The next phase of the project comprised of internal repair works across the mansion, Camellia House, Riding School and the Stables. Camellia House was the first to have the Preservation Trust's attention, with the aim of creating a visitor space to generate ongoing revenue towards the restoration project.

Camellia House is a Grade II listed building which started life as a menagerie in the 18th Century, becoming a prized place for the Marquess' beloved camellias – which are still there. The flowers are some of the rarest – and oldest – camellias in the world.

The garden area around Camellia House was part of the £3.5m restoration project, with the inclusion of schoolchildren and local community groups in activities such as forest school and horticultural projects such as an 'edible classroom', funded with £20,000 from The Postcode Lottery Fund. Funding raised includes £1.5m from the National Lottery Heritage Fund, with a potential further award to be declared in further rounds of the funding process.

Core services

Structural Engineering / Conservation and Heritage

Sectors

Conservation and Heritage