

# Shepley Restoration Services

Part of the Shepley Group



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## Overview

Shepley Restoration Services are the UK's largest historical metalwork contractor and are dedicated to providing the highest levels of quality and service to our clients. We became established as a specialist restoration and conservation contractor in 1985 when we completed a major iron project on the Grade 1 listed Dorchester Hotel on Park Lane, London.

Over the past 30 years our highly experienced teams have successfully delivered a large number of prestigious projects across the UK and have established a reputation for being proactive in providing bespoke solutions for some of the most challenging of aspects of restoration. We can offer safe, high quality and innovative solutions to the heritage sector, we are able to operate as both a principle contractor and a specialist subcontractor on a wide range of projects. We offer a full service from initial assessment of heritage assets, to site works and in-house restoration and conservation, we also offer a specialist coatings application service also from our in-house team.

We have undertaken a significant programme of investment in our facilities which are now capable of dealing with all aspects of the restoration process. From the initial removal of historical lead-based paint systems utilising our automated blasting facility, assessment and condition reporting, through the various restoration tasks to finally the in house application of a range of protective coatings. In all cases our approach is carefully considered to provide a sympathetic solution which can involve a blend of conventional craft skills supplemented with technologies such as 3D modelling and BIM.

## Sheffield Restoration Facility

Conveniently located just off the M1, the modern 4200m<sup>2</sup> restoration facility consists of 7 work bays, Bays 2 to 5 are utilised for mechanical restoration or Fabrication works each bay has a 5 ton overhead with bay 3 having two 5-ton cranes giving capacity and flexibility to undertake a wide range of tasks. Bay 6 has a manual blast booth 16m x 6m again equipped with a 5-ton overhead crane. Bay 7 is equipped with an auto-blast machine capable of processing components up to 1600 x 820 this bay is also equipped with a 5-ton overhead crane

## Specialist Coating Capability

Bays 8 and 9 are the prep and coating application areas, Bay 9 has four paint booths, each 7.5m x 9m and can deliver a wide range of coating systems simultaneously, we can apply any coating system (We can offer zinc metal spraying in one booth) and are also able to apply intumescent fireproofing systems if required.

We have the flexibility to modify the existing paint shop layout to provide a single paint booth 22m x 9m. This also has a 5-ton overhead crane.

All Painters are ICATTS trained  
 Two are authorised by Metallisation for metal spray.  
 In-house NACE/ICORR level 2 painting inspector.  
 In-house level 1 ICORR Painting Inspector.



## Restoration Services We Provide

- Initial asset assessment.
- Formulation of repair strategies.
- Advice on suitability of coating systems.
- Buildability assessment's.
- Structural assessment of structures, repairs & temporary works through our Structural Engineer partners.
- Main contractor services.
- Site works including coating application.
- Historic ironwork repairs
- Re-casting of historic ironwork.
- Draughting services.
- In house specialist coating application.

# Case Studies

## Kibble Palace, Glasgow

Kibble Palace is a wrought iron framed glasshouse dating from the 19th century and covering 2137m<sup>2</sup>. Originally designed for a domestic property, it was shipped up the river Clyde by barge and erected in 1873 at its current location.

By 2004 the ironwork was showing signs of considerable corrosion. Shepley was commissioned to completely dismantle the Palace and remove all the parts to our workshop in Yorkshire, where salvageable parts underwent specialised repair and others were re-cast. The ironwork and glass were then reassembled over a rearranged floorplan to give the Palace a prolonged life, reopening in 2006.



## St Pancras Station

St Pancras Station was opened in 1868 and is one of the wonders of Victorian engineering. The station was built by the Midland Railway Company (MRC) to connect London with some of England's major cities. It was recognised that the station required a refurbishment in the early 2000's. Shepley worked on the station and were responsible for the ironwork repairs and roof dismantling of the station, these major work packages combined came to a value over £17m.

Shepley covered a variety of aspects such as conducting surveys, design development and all aspects of implementation within strict conservation and heritage constraints. Up to 50 operatives were involved in various tasks such as the refurbishment of grade 1 listed building; civil works including in situ cast lintels, fabric removal, installation of supporting steelwork such as overhead line supports and polished stainless steel shop fronts.



# Kings Cross Redevelopment: Triplet Gas Holder Refurbishment

## Project Overview

Shepley were required to undertake the offsite refurbishment and enhancement of a grade 2 listed 'triplet interlocking gas holder structure' which was originally erected between 1864 and 1867. The refurbishment commenced in February 2014 and was completed in February 2016.

## Solution

The triplet gas holder was to be incorporated into a landmark residential scheme thus the standard of workmanship and level of finishes needed to be exceptional, while at the same time still allowing the story of the structure to be told. The sheer scale of the project with one-hundred and twenty three 10t columns to be processed along with lattice braces guide rails and sundry decorative castings presented a huge challenge and both internal and external logistic solutions and a restructuring of the Shepley restoration facility and delivery team was required.

## Scope of Works

- Agree sequence of re-erection on site in order to formulate the refurbishment sequence and storage.
- Design and fabricate lifting beams handling frames and set out works to produce production line to receive components.
- To remove all coatings from components due to the amount of paint on the structures this needed to be initially chipped off to prevent blockage to blast bay filters.
- Pre-blast components and produce member record sheet for assessment and repair recommendation by clients rep.
- Undertake bolt changes where accessible to replace original bolts with new where access not achievable structural over-banding to be employed.
- To undertake structural repairs to cast iron columns, wrought iron lattices, guide rails, cappings and provide new elements such as braces and connection members.
- To prepare the surface of components and ensuring that pits and wormholes are properly prepped in order to effectively receive coating system.
- To apply multilayer coating system including stripe coating and stippling (this reduces the need for cosmetic filling).
- To remove from works and place back into storage racks where they are to be protected from the elements by envirowrapping the storage racks thus preventing airborne contaminants.
- Final clean down and prep before dispatch back to site for re-erection.



## Wentworth Castle

### Project Overview

Victorian wrought iron glasshouse originally built in 1885 as part of the Wentworth Castle gardens, had since fallen derelict and was to be refurbished as part of a wider development and re-opened to the public.

### Solution

Due to the advanced state of dilapidation a scaffold was erected to support the remaining structure and also afford access to our site teams. The solution was to survey the condition and orientation of the structure and tag all items prior to dismantling and carrying out the restoration process at our restoration works in Barnsley. The structure would be returned to site finish painted for re-erection and glazing.

### Scope of Works

- To establish site prior to appointment of main contractor.
- Stabilise structure and erect scaffold.
- Survey, identify and tag all components.
- Dismantle structure and transfer to workshop.
- Clean components and compile condition report assess what components can be repaired and what requires replacement.
- Procure new wrought iron glazing bars and cast iron gutters shoes and columns.
- Manufacture new wrought iron window, door and roof units.
- Repair retained wrought and cast iron sections.
- Trial assemble entire roof bay assemblies.
- Paint components.
- Dispatch to site and re-erect.





### Smithfield Market, London

Faithful restoration of cast iron structure and decorative facades.

Client: **Taylor Woodrow**

Value: **£1.2m**



### The Dorchester Hotel, London

Faithful restoration of replacement of the cast iron oriel windows.

Client: **Sir Robert McAlpine**

Value: **£1.5m**



### Turners Curvilinear Range, Dublin

Faithful restoration of the entire iron and glass structure

Client: **Office of Public Works**

Value: **£1.5m**



### Paxton's Pavilion, Sheffield

Faithful restoration of the entire iron and glass structure

Client: **Sheffield City Council**

Value: **£600,000**



**Palm House at Sefton Park, Liverpool**

Faithful restoration of the entire iron and glass structure

Client: **Liverpool City Council**

Value: **£3m**



**The Palm House, Dublin**

Faithful restoration of replacement of the cast iron oriel windows.

Client: **Office of Public Works**

Value: **£1.6m**



**Stack 'A' Custom House Quay**

Faithful restoration of the cast iron lanterns in the roof

Client: **Bennett Construction**

Value: **£800,000**



**Highbury Stadium Windows**

Restoration and repair of listed windows

Client: **Sir Robert McAlpine**

Value: **£100,000**





### Restoration Study of Granton Gas Holder

Development of methodology and cost model

Client: **National Grid Properties**

Value: **£50,000**



### Pro Cathedral Window Restoration

Restoration and repair of listed iron feature windows

Client: **Lissadell**

Value: **£50,000**



### Netherby Bridge

Client: **Netherby State**

Value: **£280,000**



### Westminster Palace

Client: **Strategic Estates**

Value: **Substantial**



**St James Palace Gates**

Client: **Royal Palaces**

Value: **N/A**



**Wyatt Bridge**

Client: **Duke of Northumberland**

Value: **£200,000**



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