

Project Case Study: Globe Road, Leeds

Services: Demolition, Remediation, Archaeological investigation support and Preparatory earthworks



Demolition | Enabling Earthworks | Remediation | Drilling | Civil Engineering | Plant & Technology | Geotechnical | Environmental | Planning | Renewable Energy

The Sirius Group: Confidence you can build on

Client: Commercial Estates Group

Project: Globe Road, Southbank, Leeds

Duration: 7 months

Services: Demolition, Remediation, Archaeological investigation support and Preparatory earthworks

Sector: Residential & Commercial

Contract value: £500,000



The old building at Southbank, Leeds before Sirius demolition works

Site History

The former Marshall's Flax Mills were built on this site in the 1790's. During the 19th century the Mills were demolished and the site developed as a bobbin and shuttle factory and a chemical works. Later followed by an automotive garage constructed post WWII and most recently a multi-storey car park. The site at Holbeck was complex, with multiple ancillary structures alongside the mills providing warehouse space and buildings for weaving, bleaching, hackling and a gas plant.

Project Description

Demolition of the multi-storey car park, breakout hard standings, removal of hydrocarbon sources (underground fuel & oil tanks) and remediation of contaminated soils including asbestos. Attendance to archaeological investigation following demolition

phase. Creation of development platform with the stockpiling of 6F2 following processing of hard materials, building, hard standings and foundations.

Site features

The site, triangular in shape, was bound by Globe Road (a major route in and out of Leeds city centre), Hol Beck and a live railway viaduct on respective boundaries. The site was also surrounded by businesses, cafés, offices and residential apartments.

Two live culverts traversed the site and had to be accurately defined and protected throughout the scheme. During the enabling works Sirius identified manholes to the culverts which were eventually exposed and enabled further inspection and investigation by others following the enabling works.

Sirius works complete and the site ready for handover



Project Brief

The main aim for the project was to obtain planning permission for the site by discharging conditions associated with contamination and archaeology. There was also an aim to create a development platform with no constraints to future construction ie. obstructions enabling straightforward future construction.

Sirius were involved early on in the project undertaking ground investigations which informed development of the Remediation Strategy. Sirius were ultimately appointed as the design and build contractor, responsible for carrying out the remedial works. The works were supervised full-time by a Sirius Resident Engineer and managed by a project manager reporting to the client's representative and advisors.



Aerial view of the site before demolition works started



Aerial view of the site whilst archeological works were taking place



Final site view with Sirius works complete and ready to handover

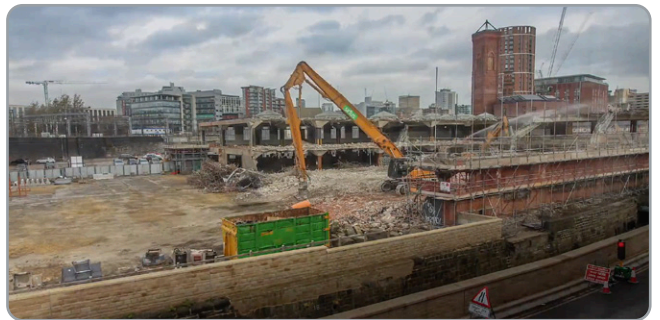
Demolition & Remediation Design

The multi-storey car park was found to be structurally unsound on the elevation nearest Globe Road which also had a live substation immediately adjacent the car park building which had to be retained. As a consequence, Sirius subcontracted a specialist demolition structural engineer to provide recommendations on how to support the structure and propose a safe demolition methodology.

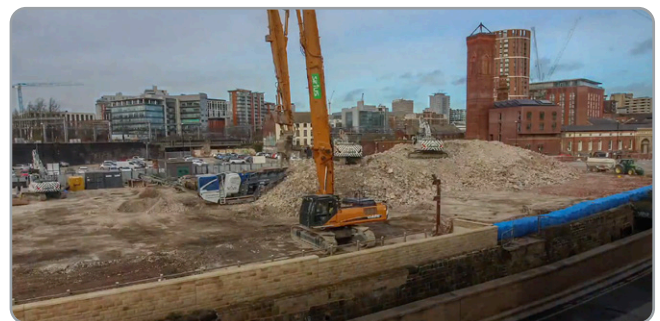
Sirius formulated the Remediation Strategy and also an Earthworks Specification which enabled reuse of all made ground on site which required a cover in any future areas of landscaping.



Site ready for the demolition phase



Demolition in progress



Crushing and processing of all hard materials on site for future use



Creation of 6F2 stockpile from demolished/crushed material on site

Liaison and Approvals with Third Parties

During the course of the works Sirius liaised with Leeds City Council highways department to obtain permission to close Globe Road which enabled completion of the demolition works over a single weekend. Sirius also liaised with Leeds City Flood Team to agree a methodology of installing the temporary flood barrier where the building wall was situated parallel to the beck. Finally, Sirius fulfilled the third-party wall agreement with the electrical distribution company who owned the substation who were satisfied the substation building remained structurally sound following the demolition phase.

Early engagement with the archaeological team ensured Sirius understood the objectives of the works and through good daily communication on site and attentive plant attendance the archaeological works were completed ahead of programme bringing about cost savings for our client.

Demolition Phase

Key aspects of the demolition works:

- Sirius undertook a structural survey, which ultimately lead to the installation of armoured wire support to prevent catastrophic collapse onto the road and substation during demolition.
- Obtain permission for road closure and implementation of traffic management during weekend work.
- Prevention of debris falling into Hol Beck to the rear of the building and Globe Road to the front of the building.



Building demolition well underway

Remediation Phase

Key aspects of the remediation and preparatory works:

- Construction of a temporary flood barrier where the building fronted Hol Beck.
- UXO clearance within a specific area of the site deemed medium UXO risk.
- Attendance to archaeological investigation.
- Excavation, processing, and re-compaction of ~15,000m³ of soils specific to ground conditions.
- Identification of nine unrecorded underground fuel and waste oil tanks. Effective decommissioning was carried out on each tank, all were gas tested and were disposed off-site with gas free and cleanliness certificates upon completion.
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Exposed earthworks for archaeological investigation to take place





Archaeological investigations to taking place



Unearthing the history of the site

- Identification and safe removal of hotspots containing Asbestos Insulation Board (AIB). Boundary air monitoring was performed during removal to ensure there was no release of free fibres and demonstrate safe working procedures were employed.
- Removal of a number of significant substructures/ foundations to ensure they were not a constraint to future piling and construction.
- Crushing and processing of all hard materials retained on site for use as future pile mats.
- Effective implementation of appropriate level of environmental control to protect off-site receptors from dust, odour and Volatile Organic Compounds (VOC's) verified by real time environmental

monitoring, full-time personnel monitoring, and regular spot check/short-term monitoring to demonstrate ongoing compliance. No complaints were received from neighbours or regulators during the course of the works.

- Comprehensive validation of the works by a Sirius Engineer.

Post Remediation Phase

A validation report was prepared, to confirm the objectives of the approved Remedial Strategy had been met, incorporating all chemical, geotechnical, and environmental testing and analysis. Subsequently approved by Leeds City Council with discharge of associated planning conditions.



With Sirius works complete – the site ready for handover



CEG plans for the future development of the site

Demolition, earthworks, remediation, drilling and civil engineering contractors. Geotechnical, environmental and planning consultants. Renewable Energy.

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