



Demolition, asbestos removal and earthworks

Active hospital site, St Albans

Client: Bloor Homes

Site area: 9ha

Location: St Albans

Value: £4m

End use: Residential

Challenge

Large-scale demolition, earthworks, remediation and asbestos removal on the active site of a disused psychiatric hospital. This was in preparation for 206 new homes in the area.

Forty-eight former hospital units needed to be demolished, including a three-storey nursing home and a neonatal unit.

These buildings contained large amounts of **notifiable and non-notifiable asbestos**, and there was hydrocarbon contamination associated with underground fuel tanks and a former dry cleaner.

On top of this, over 2.5km of redundant district heating ducts ran under the site. This **network of tunnels** was heavily contaminated with asbestos.

As the site still housed an **active NHS hospital**, half of the area needed to be kept operational throughout the works, including a busy road running through the middle of the site.

Solution

McAuliffe worked closely with the NHS to ensure works would be carried out safely and with minimal disruption to patients in the active hospital.

This included erecting a large hoarding around the site, as well as deploying dust suppression units and controlling vehicle movements.

The team prepared and submitted an environmental management plan to enable discharge of planning conditions, and a thorough ecological survey was conducted prior to work starting.

Coordinated concurrent demolition, asbestos removal and remediation

McAuliffe coordinated concurrent underground asbestos removal and above-ground demolition. This included managing a specialist subcontractor to tightly control the removal of notifiable and non-notifiable asbestos.

Ducts were removed up to 3m below ground, requiring careful deconstruction and reengineering of the ground to meet foundation and highways specification.

McAuliffe excavated underground fuel tanks, and treated hydrocarbon-contaminated soils by bioremediation.



Materials management

The team developed a detailed Materials Management Plan (MMP) to ensure maximum reuse of materials on site and compliance with the CL:AIRE DoW CoP.

McAuliffe used its in-house intelligent equipment to conduct site-wide turnover, due to extensive historical foundations and unforeseen duct runs.

Machines sent **real-time** locations and dig depths back to in-office engineers, enabling design of foundations across the site.

Value-engineering of the site was also managed under the MMP, including generation of clean cover soils for garden areas and creation of a public open space.

McAuliffe processed concrete into 6f2 and Type 1, with half of the material used for road construction and half stockpiled for future use.

The team also installed piling mats, and **secured high-ways approval** for road box construction.

RESULTS

- Project delivered early and within budget
- £1.1m saved through treatment and re-use of soils on-site
- Avoided 10,600 lorry movements, as no hazardous soils had to be transported off site to landfill
- Produced 14,539m³ of 6F2 and 3,555m³ of Type 1, achieving an aggregate cost saving of £600k