David Osborne Associates

Sector: Healthcare

Value: Approx. £6K

Date: 2012

We Value:
Quality
Health and Safety
Environmental Management
Sustainability
Equal Opportunity

Services Supplied on this Project:

- Phase I desk study.
- A site walkover survey of the site, set-out and supervision of the field works.
- Window sampling.
- Cable percussive borehole.
- Dynamic cone penotrometers
- Groundwater monitoring standpipes.
- Gas and groundwater monitoring.
- Geotechnical testing.
- Chemical analysis of soil samples.
- The provision of an interpretive report including a desk study and an assessment of environmental issues pertaining to the site and its redevelopment.

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The Project

Geo-Environmental was instructed by David Osborne Associates on behalf of The Royal Surrey Hospital to investigate the geotechnical and environmental factors pertaining to the proposed Radiotherapy Department at East Surrey Hospital. It was understood that the proposed redevelopment was to comprise a two storey building, with the consideration required for the structural shielding design for medical X-ray imaging facilities, which contained reinforced concrete and lead lining.

What did we consider?

The desk study of geotechnical and environmental factors pertaining to the site, included a review of available historical maps and an examination of other available sources of geo-environmental information. The objective of the risk assessment was to evaluate plausible pollutant linkages with respect to the proposed development, adjacent land uses, and the wider environment.

At the time of the investigation part of the site was still in use as a car park and special consideration was given to the health and safety of members of the public and hospital staff when planning the works. High utility levels where located in the area, so an appropriate risk assessment and method of cable avoidance where employed.

Consideration was also given to the split level nature of the site and geotechnical testing needed to be sufficient to provide design parameters for the load of the radiology building, with its reinforced structure.

What did we do?

Because the findings of the desk study and walkover survey revealed the chemical quality of near surface soils were classified as low in terms of risk, no potential targets for contamination were identified and therefore the boreholes were positioned to give broad coverage and targeted elements of the proposed structure. Land gases were not considered to pose a significant risk.

Three dynamic cone penetrometers were utilised within the area to provide CBR values.

On completion of the investigation the results were summarised in our ground appraisal report, which provided advice on foundations, soakaways, pavements, excavations and retaining walls, gas protection measures and any other remediation that was required.