



Client London School of Economics
Type Demolition, Environmental & Substructure
Location Westminster, London

Sector Education
Procurement JCT D&B
Value £14.5M

44 Lincoln's Inn Fields



London School of Economic and Political Science (LSE) proposed to redevelop the property at 44 Lincoln's Inn Fields, London to convert the former Cancer Research UK HQ to a new building for educational use for the LSE.

The development proposal comprised of the demolition of the existing building and the construction of a new multi storey building for educational purposes. It involved soft strip, hard demolition, removal of the existing basement raft slab, underpinning to existing basement retaining walls and the removal of asbestos.

The original building was of reinforced concrete construction and consisted of an 8 storey superstructure (7 stories only at the southern end) and a 3 storey basement.

The ICRF Extension storey building had an 8 storey superstructure and a 2 storey basement that were of reinforced concrete construction.

The Additional Accommodation over South Car Park was a single storey steel structure, containing offices. This building was suspended over the courtyard and was supported by a series of RC columns.

Scope of Works

Integrated McGee project involving asbestos, demolition and civil engineering divisions.

Demolition of a 9-storey building, construction of a double storey basement (with 3no levels of propping), raft slab (& associated drainage) construction and liner wall & 2no level of prop removal.

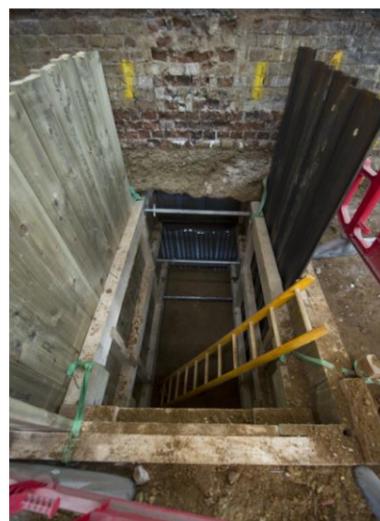
A number of demolition techniques were used to try and reduce nuisance noise and vibration (bursting and saw cutting). Archaeological works uncovered a 16th century culvert.

Methodology

Traditional top-down demolition. Installation of 2no levels of horizontal propping, piling works (secant wall and bearing piles, 2no levels of horizontal propping, underpinning of the full perimeter, 2no tower crane's installed, Grade III basement: raft slab construction, liner wall construction and 1no level of horizontal propping removal.

Underpinning Works

The works also comprised extensive underpinning to boundary walls, small section of adjacent RCS Building's foundations, the removal of existing basement slab and bulk dig to form new levels for proposed basement slab. The works involved underpinning to depths approaching 5m below existing boundary wall.



Challenges and McGee Solutions

Building being demolished and live basement being excavated on the site next door. Temporary works scheme had to be altered in order to facilitate the neighbouring site progress with their works. Further amendments of the temporary works scheme to allow the follow on contractor start their programme sooner by

designing the scheme so that half of the horizontal propping could be removed so that the follow on contractor could begin their core construction.



Innovations

Onsite re-use of over 100t of structural steel in the construction of the site logistics gantries resulting in significant CO2 savings.

Restrictions

Central London location. Digging basement at the same time as neighbouring site causing development of temporary works design due to complicated party wall approval's process. 2no Grade II listed buildings surrounding the site that needed to be protected during the works.

The project was completed to the entire satisfaction of the Client and his professional team.

