

KINGS COLLEGE BIM SURVEY

- *using 3D Laser Scanning*



Due to a recommendation from a previous client, we were asked to price for the BIM survey of the Platanes Hall of Residence at Kings College London.

The building was built in 1882 and is a Grade 11 listed building and had an annex added in 1925. The exterior has three storeys above a basement with an asymmetrical front elevation including a recessed central portion with a Corinthian porch, flanked by unequal bays to either side.

The interior retained many of the late 19th century decorative schemes in eclectic styles, complete with chimneypieces, joinery and parquet floors with decorative inlay.



It was in a relative poor state of repair and needed “tidying up” before we could start the survey and due to time pressures we followed on a week behind the clear-up teams.

We set out the control grid outside the building using an EDM and tied this into OS coordinates using GPS. The control grid was then transferred into the two buildings again using an EDM.

Registered Pointcloud and 3D model of Section of Platanes Hall, Kings College

We utilised our laser scanners to capture dimensional data for both the outside of the building and also the interior. It was important to capture all of the important architectural features to a high resolution as the pointcloud data would be used a record in the event that these were damaged during construction. Examples of this were the fireplaces and staircases.

Detailed notes and photographs were taken to assist in the production of the 3D BIM model in Revit

Once all the scanning was completed the individual scans were registered together to produce an overall pointcloud of the building.

From this overall pointcloud we produced a 3D BIM model in **Revit** and this was used as the starting point for the refurbishment of the buildings.

