

Case Study





PTSG protects students at University of East Anglia





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Premier Technical Services Group PLC's (PTSG) Lightning Protection division recently worked at the University of East Anglia (UEA) delivering a contract to upgrade lightning protection systems on two buildings, Norfolk and Suffolk Terrace. Both structures are predominantly used as student accommodation.

UEA is a well-known public research university, established in 1963 in Norwich. In 2012, UEA was ranked the 10th best university in the world and the third best in the United Kingdom, offering over 300 courses in its four facilities. PTSG's qualified engineers are able to undertake such critical works to both buildings without disrupting the live and vibrant atmosphere of the University. Housing around 15,000 per academic year, this was essential when undertaking work on the site.

Engineers visited the sites with the original intention of fixing the existing lightning protection system. However, upon arrival it was noted that the current system had broken down and was beyond repair. Due to the Grade II-listed status of these structures, a vast amount of work had to be completed by all parties to ensure planning permission was granted by the client.

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Norfolk and Suffolk Terrace make up the University's iconic Ziggurats, designed by English architect Denys Lasdun. The architectural importance of these buildings has great significance for the design and installation of lightning protection systems, as it is more vital than ever that these systems do not detract from the building in any way.

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After numerous meetings with the project stakeholder, it was agreed that the best option would be to install early streamer emission (ESE) lightning protection systems, due to the nature and aesthetics of the building.

The principle of an ESE system consists of creating one or more preferred impact points for a lightning strike using low impedance, conductor elements. These then conduct and dissipate the lightning current into the ground. This coherent system enables the lightning to be captured and dissipated whilst providing protection to the structure.

The down conductors had to be routed in accordance with the planning consent routes and colour matched to blend in with the structure, allowing it to keep its aesthetic appeal.



Access machines, cranes and strict traffic management were needed to gain access to the upper roof areas in order to complete the installations within one week of starting the work.

Due to the vast experience of PTSG's engineers, the Group has the ability to turn around work such as this in a short space of time, whilst still working to a high standard. PTSG's client MJS Projects and representatives from UEA were delighted with the work carried out at the University. Confirmation of completion of all work on site was given on 18th September, as agreed with the client.