GCL
building technologies
smart intra-structure

Case study: Highgate Hospital

Sophisticated Intra-Structure Electrical System for radiogaphy, scanning and operating theatres at Highgate

Summary

When established London builders Kind & Co were commissioned to build a two-storey extension to Highgate Hospital, they turned to GCL to design and install an electrical intra-structure system that would service the new wing's CT scanner, MRI scanner, X-Ray, operating theatres, plant room and offices.

Working for a busy hospital placed unique demands on GCL, not least the need to keep vital hospital services operational throughout the project and to keep patients and staff safe at all times. GCL, with their unrivalled reputation for working in occupied premises where health and safety considerations are paramount, were the obvious choice.

Both Kind & Co and the hospital knew that GCL could be relied upon for work that would be:

- Technically excellent
- Sensitive to the needs of hospital patients and staff

"GCL were great, fantastic to work with at every stage and really understood the needs of the hospital. We will definitely use them again."
Steve Juson, Kind & Co

GCL Building Technologies
PO Box 93, Tunbridge Wells,
Kent, TN5 7ZR

sales@gcl.uk.com
London: 020 3906 6070
Kent: 01892 576 950
www.gcl.uk.com

The Requirements

The new extension needed a reliable, sophisticated electrical distribution system to:

- Be installed during working hours
- Supply both the existing building and the new building
- Comprise three-compartment austenitic stainless steel trunking and various sizes of metallic trunkings throughout the buildings
- Connect two new LV transformers to the existing grid to supply two new service intakes
- Service the new X-ray, operating theatres, offices, a plant room on the roof, reception areas and MRI & CT scanners
- Be sympathetic to the style and decor of the new building

The Challenges

GCL's design team were involved in technical discussions from the outset, successfully beating several other competitive tenders for the project. Most of all, the client wanted to get everything right first time to avoid expensive or time-consuming 'unpicking' later on. The many challenges facing GCL included:

- Large distribution sub main supplies had to be installed through difficult and irregular routes and pathways
- All operating and scanning areas required high integrity 'MEIGaN' earthing system complying to IEC-60364-7-710
- Supply and installation of UPS/IPS system
- Route to rear of the hospital had to be excavated to enable installation of the new LV supply
- Temporary road closure required for delivery of scanners and mechanical plant equipment
- New extension was in a restricted space and could only be constructed by demolishing part of the existing building

The Solution

GCL used their expert knowledge to give invaluable advice to their client on how best to proceed at every stage of the planning and building process. The solution they devised included:

- Maintaining energy supply to critical hospital equipment while the transformer and second supply were being installed
- Implementing a highly detailed logistical exercise to allow for craned delivery of medical and mechanical installations
- Keeping site storage to a minimum, especially at time when several trades and engineering teams were working in a relatively small space

Benefits to the Client

The hospital is delighted with the new extension and its efficient new intra-structure services, as are Kind & Co, who have already commissioned GCL for another project. The benefits of using GCL include:

- Provision of compliant electrical services for the X-ray, CT, MRI scanning suites and operating theatres for the hospital
- Project delivered with the minimum of disruption to hospital activities
- Top quality work completed on time and on budget
- Seamless integration of existing and new building, upgraded electrical intra-structure to both
- Excellent working relationship with GCL employees and engineers
- Patient and staff safety treated as a priority at all times during works

To find out more, speak to one of our dedicated team on **020 3906 6070***