

HV/LV Services: Hospital Refurbishment

Quartzelec enables hospital to maintain full operational status whilst 996 RAAC panels are replaced in one of first NHS upgrades.

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Our Customer's Challenge

The primary facility of Bassetlaw Hospital, established in 1976, includes the Mental Health Block 47 and a portion of Theatres Blocks 43 & 65, which were constructed using Reinforced Autoclaved Aerated Concrete (RAAC). Whilst RAAC was deemed an innovative building material during its time, it has since been surpassed by contemporary materials that provide enhanced durability, longevity, and cost-effectiveness in maintenance. Despite the absence of an imminent threat to the structures, the Trust has chosen a pre-emptive course of action to eliminate the RAAC materials prior to the emergence of any potential issues, substituting with a cutting-edge roofing system. Bassetlaw is one of the first Hospitals in the country to complete these kinds of works, but the challenge for the hospital trust was to ensure that all panels could be safely replaced whilst retaining full operational capability and electrical supply.

The Quartzelec Solution

Before the NHS trust could initiate any of the work, exhaustive surveys of the site's existing M&E services needed to be conducted, identifying the source and physical location of supplies. As a trusted partner with extensive experience in maintaining operational supply within the healthcare environment, Quartzelec was brought onboard to diligently carry out initial explorations and carefully orchestrate the upcoming operations and programme works to grant the Trust access to at least 4 operating theatres, allowing patient treatment to continue.

In a strategic effort to ensure minimal disruption and allow for the seamless continuation of planned and emergency procedures during the roof replacement, surgical teams had to adjust to a temporary arrangement. They were relocated to three modular Vanguard theatre units and the relocation process was carefully staged to maintain workflow. Initially, the team from Block 43 transitioned to the units while the first phase of the work was underway. Upon its completion, the team from Block 65 was then relocated to these units during the execution of the second phase.

Quartzelec played a pivotal role in ensuring the functionality of these temporary units by providing essential utilities, such as water and electrical connections. Furthermore, to facilitate easy access to these units, a dedicated corridor linking the hospital with the temporary units was constructed. This well-coordinated initiative ensured uninterrupted hospital operations throughout the renovation period.

Once the surgical teams had successfully established their operations in the temporary units, Quartzelec turned its attention to the main building by removing the existing M&E services from the underside of the roof - this was challenging as in certain areas there was only 1m worth of space.



The Quartzelec **Solution** (continued)

Once removed, Quartzelec handled the replacement of M&E services within the facility which encompassed systems including small power, lighting, fire safety, lightning protection, ventilation, BMS, and medical gases.

During the refurbishment of the mental health block, all staff and patients were strategically relocated to ensure their safety and to maintain the functionality of services. Quartzelec removed all existing services with a scope that was further extended to cover a comprehensive M&E refurbishment that included; lighting, fire safety systems, LTHW, HVAC, air conditioning, and modifications to the nurse call, phone, data, and TV systems.

In tandem with the ongoing RAAC works, Quartzelec’s Building Services and HV services teams came together to execute a significant HV/LV main cable diversion for the newly developing A&E care village at Bassetlaw hospital. This successful collaboration showcases one of Quartzelec’s greatest strengths - our capability to bring together specialist teams from all areas of electrical engineering.

The entire construction team was deeply engaged with clinical teams affected by the renovations, as well as with the estates, compliance, parking, and fire officers within the trust to keep the impact on both staff and patients to an absolute minimum. Given the scope of the operations, some disruptions were inevitable, yet the concerted efforts of the team to mitigate these disturbances played a crucial role in minimising inconvenience and the careful planning that underpinned this project and the robust relationship with our client and the trust contributed to the early completion of all work. We take pride in this collaborative approach, which consistently delivers valuable benefits to our customers, reaffirming our commitment to service excellence.



In Brief

- Bassetlaw Hospital embarked on replacing outdated RAAC panels with modern materials, pioneering such a transition
- Quartzelec conducted in-depth HV/LV pre-renovation surveys to plan operations meticulously
- Surgical teams were relocated to temporary units during renovations, ensuring uninterrupted hospital services
- Quartzelec managed comprehensive electrical refurbishment of the main building and mental health block, covering a range of essential services
- Proactive approach minimised disruption, contributing to project success



Thank you to everyone for their input and support on this scheme. The process of removal and the type of work wasn't familiar or tested with us, but we have not only replaced all the panels with limited issues but ahead of programme. - Phil Worsnip, Project Manager - IHP

Order Value
£1.9m

6 month
refurbishment
programme

Completed
ahead of
schedule