

Case Study - University Hospital, Coventry



'Providing high quality standard of works consistently has contributed to a long-lasting client relationship, achieving repeat contracts for a variety of specialist civil works packages'



Project Summary

The University Hospital, Coventry, is one of the largest-ever health schemes procured under a private finance initiative.

- **Final value of work: £10m+**
- **Intermittent attendance from 2004 to 2016**

The 1212-bed acute hospital project has included a range of construction activities from demolition of the existing facilities to construction of a mental health unit and other support buildings.

The new hospital was created over many phases, ensuring services remained fully operational throughout the transition period.

MPH were initially engaged to construct several internal courtyards within a 12-week program. However, our collaborative work ethic, reputation for high quality delivery and focus on safety has developed into a long-term relationship with the Principal Contractor, Skanska. This has resulted in securing a number of complex civils packages including:

- Phased reclamation of existing hospital infrastructure
- Construction of new car parks, bus lanes, traffic islands
- Foul pumping tanks and force main sewers
- Helipad upgrades and emergency access upgrades
- Foul and surface water drainage
- Ductwork and chambers
- Building envelope drainage
- Hard and soft landscaping including feature granite slabs, kerbs, signage, street furniture, fencing, barriers, road markings
- Emergency call out, construction support, snow removal, facility maintenance



“The successful implementation of the new and improved interchange has doubled the number of buses that service the hospital. One full bus takes 60 cars off the road, which improves air quality, boosts physical activity and reduces noise, all while improving health and wellbeing.”

Clive Robinson, Sustainability Manager of UHCW NHS Trust

Our Approach

Throughout each scheme delivered at the hospital we have worked closely with the client team to overcome the logistical challenges of working in extremely restricted areas whilst at the same time ensuring efficient delivery, use of materials and resources.

We managed the projects using a 'just in time' approach, delivering into the live hospital site with multi-drop vehicular strategies to minimise wider site interruption, mitigating the need for extensive lay down areas.

This approach was successfully planned with the health and safety of all stakeholders and workers at the forefront of our daily operations.

The Challenges:

- As part of the Trust's sustainable travel solutions to improve health, a new bus route was proposed consisting of nine major stops and featuring state-of-the-art real-time information boards.
- The complexity of keeping the existing bus service live whilst constructing the new bus routes proved extremely challenging.

Our Solution:

- Early engagement with the Trust, local authorities and bus operators helped us to identify peak route times whilst locality requirements allowed us to apply a phased construction when planning the works to ensure the routes were kept moving at all times, avoiding passenger and visitor disruption.



Challenges & Solutions

The Challenge:

Location and construction restrictions proved challenging for various work activities from construction of the MHU Island to installation of the new inbound lanes and patient drop off. We had to take into consideration all access and egress points to avoid disruption to hospital staff, patients and visitors.

Our Solutions:

- Blue light **priority routes**, away from the construction access and egress points to ensure emergency traffic was unhindered at all times
- **Full liaison** with the hospital estate team to understand the day-to-day activities of the site and protect high risk areas and assets
- **Access and egress** points for vehicles and pedestrians to the site, offices and compound
- General traffic routes to be used by delivery vehicles and plant moving around the site, with **deliveries timed to protect hospital peak times**, such as evening visiting hours
- Principal pedestrian routes were maintained trip and hazard free and isolated from road and construction traffic.



The Challenge:

- When planning essential excavation works, the installation and connection of new utilities presented many high consequence risks. Potential damage to these essential services could result in no AC power or remote communications to life support services and hospital operating theatres.

Our Solution:

- Sensitive mitigation methods were applied to ensure the works could be carried out safely with **zero impact** to the hospital's critical functions. This included: the use of hydro-vac excavations, which utilised non-mechanical overburden removal to excavate soil and locate underground utilities; GRP shovels for hand digging; and the use of HAZTEC Varg Chemsol+ suits, which provided high visibility flame retardant and anti-static properties, protecting our operatives and the public.

Added Value

Community / Stakeholder Benefits

- MPH promoted and sourced a locally employed workforce throughout various works packages. We also subcontracted packages to stimulate a network of SMEs which we have continued to engage with for future packages.
- Through integrity, flexibility and dedication our initial 12-week engagement has developed into a successful 12-years and counting commitment.

Awards

- MPH were at the forefront of site coordination and phasing of inter trade working. MPH were proud to regularly receive '**weekly contractor champion**' where all trade partners were ranked weekly on measured site based KPI metrics. KPI's were influenced by safety infringements, site housekeeping, suggestion scheme inputs and meeting attendance.

Sustainability and Innovations

- Due to the size of the hospital footprint - the internal courtyards were in some instances hundreds of meters from site access points - MPH invested in several fully electric hand operated dumper buggies which were able to fit through a standard door width, so not restraining door completion. The buggies had zero emissions and they also reduced the amount of manual handling.

'Operations carried out by MPH to date has been to the highest standards and managed effectively without any disruption to hospital services'. UHCW

