



Helping Walsall Healthcare NHS Trust Save Lives by Oliver Hollick, Tilbury Douglas Engineering

Since the pandemic started, there has been a surge in demand for rapid solutions and delivery to help NHS estates manage increased demand on services. As one of the Principal Supply Chain Partners on the Procure 22 framework, Tilbury Douglas (formerly trading as Interserve Construction) have delivered over 10 urgent COVID related projects to date; from wards to vaccine centres; several of which have been based here in the Midlands.

In recent months, both the construction and engineering teams at Tilbury Douglas have worked together to deploy a fast-track MMC (Modern Methods of Construction) approach to support the Trust at Walsall Manor Hospital in alleviating Covid-19 and winter related pressures.

As an existing partner to Walsall Healthcare NHS Trust through the new P22 Emergency Department development, we were tasked by the Trust to undertake several fast-track conversions and adaptations of existing spaces to manage increased patient volumes.

The fast-track works involved the refurbishment and remodelling of the existing CMU unit into a new Frailty Emergency Service unit that includes 12 treatment bays along with supporting accommodation such as clean and dirty utilities, cleaner's room, staff rest area and an accessible WC. The works also included the provision of modular buildings that have been sited in the hospital courtyard areas and linked to the existing ward buildings to help increase bed provision. These provide 1 x 4 bed bay unit, 1 x 6 bed bay unit along with two Emergency Department assessment unit cabins at the front of the emergency unit as a screening and triage area.

To respond in the fastest time to meet the Trusts critical need, a modular solution proved to be the best time and cost-effective solution. This approach also helped reduce disruption to the existing hospital site with the modules craned into the courtyards, reducing material movement throughout the hospital compared to what would have been required with a traditional solution.

To further advance the programme timescale, we adopted a hybrid solution, with the final fit-out completed on site. This enabled the construction of the buildings to commence, while the design was still being completed.

Close co-ordination with the Trust estates teams was required for connections into the existing site wide infrastructure (power, water, medical gases, IT). New localised plant provision was provided for the modular buildings where sufficient capacity was unavailable from existing infrastructure.

The works were undertaken in a total of **15 weeks** from initial conversation to final handover to the Trust on 24th December 2020. Jane Longdon, Divisional Director of Estates and Facilities at Walsall Healthcare Trust said; *"We would like to pass on our thanks to the Tilbury Douglas team for all of the hard work you have committed to ensure that the additional emergency facilities were up and running when needed. You and the team need to understand, not only have you done your jobs in the construction of the facilities, but in these unprecedented times when there is so much uncertainty – we can say with certainty that lives have been saved and you and the team have been part of that lifesaving team."*

Mechanical & Electrical Considerations

The new engineering services for the development were designed to meet the requirements of the various hospital operational policies/ HTM/HBN guidance and relevant legislation.

Where existing systems/plant was utilised within the refurbishment aspect of the works, suitability for extension and review of remaining useful life period was assessed. For example, it was identified that the flow rate provision of the existing ventilation would not comply with HTM 03-01 requirements for the entire area. Due to the fast-track nature of the works, we adopted a mechanical heat recovery unit solution for several rooms where the air change rates could not be achieved from the existing AHU provision.

Tilbury Douglas has in place long established National Procurement Agreements with our approved key Healthcare Supply Chain & Specialists who are aligned with our healthcare specific requirements and processes, and this provides substantial benefit to the Trust in terms of both speed of delivery and surety of cost.

Oliver Hollick, Tilbury Douglas Engineering