AUTODESK **CONSTRUCTION CLOUD**™ | Interserve

How Interserve Improved Field Collaboration when Time is of the Essence

In March of 2020, few people thought of anything other than how to fight the emerging COVID-19 pandemic. In the UK, the pandemic battle took the form of attempting to quickly transform existing structures into clinical facilities to provide intensive care for the most severe cases of the virus.

The nearly complete London Excel Nightingale Hospital was selected as a target for the effort. The task was to take the blueprint of the already in-progress construction, enhance it, and then use that blueprint to transform the National Exhibition Centre (NEC) in Birmingham into a clinical facility. The Birmingham facility would be used for general medical care for COVID-19 patients, ensuring that local hospitals could provide intensive care.

The project was complex and challenging, and the most difficult aspect was the timeline - which was nine days. And it all had to be done while observing social distancing and other COVID-19 preventative measures.

Streamlined field collaboration and cloud-based construction management were the heroes of the day for enabling seamless access to project data for teams to communicate necessary changes quickly and easily to deliver this high-class clinical project on schedule.

Interserve

Customer Snapshot

FIRM SIZE:	>5000
FIRM TYPE:	GENERAL CONTRACTOR
REVENUE:	1 BILLION
FOCUS AREA:	INSTITUTIONAL
HQ:	LONDON, UK

PHASE:

DESIGN PLAN **BUILD** OPERATE

PRODUCTS:

PLANGRID BUILD

VALUE DRIVERS:

Quality

Schedule

Safety

Streamlined Planning and Collaboration is Key to Aggressive Timelines

Interserve Group Limited is an international construction and support services company headquartered in the UK. The company works with private and public sector clients in more than 40 countries, leading to the development and delivery of excellent outcomes for clients. Interserve employs 53,500 workers globally and focuses on going above and beyond to make a positive difference on every build.

For the NEC project, Interserve worked on behalf of the NHS and the University Hospitals Birmingham NHS Foundation Trust (UHB) and was charged with delivering the facility in record time while following the guidance set out by the UK government and the Construction Leadership Council. To do this, the team needed to ensure employees and supply chain partners were kept safe throughout this challenging project.

The project involved collaboration across multiple organisations, including the NHS, the Ministry of Defence, the NEC, CBRE, Cadent Gas, Interserve Construction, and Interserve Engineering Services.

"With 182,000 square metres of space in the NEC, our team and supply chain partners were working around the clock to deliver this crucial medical facility in record time," says Dan Harmer, Project Manager, Interserve Construction. "To collaborate effectively and efficiently, we needed to find a solution that would allow everyone involved to have access to up-to-date records of drawings and plans."

In usual circumstances, a project of this scale would involve months of planning. With time being of the essence for the project team, Harmer needed a solution for colleagues to access project data and to communicate necessary changes quickly and easily. As the project leader, he needed to ensure that all the on-site teams collaborated effectively and safely to transform a vast exhibition space into a high-class healthcare facility built to specific clinical standards.

PlanGrid Provides the Necessary Cloud-Based Construction Management

Harmer had previously used PlanGrid within Autodesk Construction Cloud™ on a different project, The Lansdowne residential development in Birmingham, so he knew it was the tool they needed.

Interserve had implemented PlanGrid to construct this 18-storey building with 206 luxury apartments in 2019 and completed the project ahead of schedule. PlanGrid is a cloud-based construction productivity tool that enables teams to access digital drawings and other critical documentation on-site from any mobile device. Harmer was impressed by the solution's intuitive interface and highly customisable features and was confident that those not familiar with the tool would learn how to use it quickly.

The PlanGrid project for the NHS Nightingale was set up and ready to be deployed in less than two hours, including the upload of 150 drawings. Within 24 hours, all those working on-site could access the new technology. The cloud-based software enabled the extended project team to access up-to-date drawings and records remotely, meaning social distancing measures didn't impact the delivery time.

How to Achieve Astonishing Field Collaboration

Over the very short lifecycle of the NEC project, 13 miles of bed bays were laid end-to-end, as well as 64 miles of cable. In addition to this, Interserve laid vinyl on the equivalent of 11.5 football pitches, and 10 miles of medical-grade copper piping was put down, which meant that the ability to access plans in real-time was crucial. This enabled the project team to focus more on delivery instead of having to walk the extended length and breadth of the NEC to access project data.

"As the drawings and plans were evolving on an almost hourly basis, we wanted to keep an accurate record and mark up any changes," says Harmer. "We also

> "With 182,000 square metres of space in the NEC, our team and supply chain partners were working around the clock to deliver this crucial medical facility in record time."
>
> **-Dan Harmer**
> Project Manager,
> Interserve Construction

needed to make sure that what we were building on-site was as close as they could be to the plans that were being made in the project office across the road."

The software was deployed on mobile phones, tablets, and computers. To help with adoption, those not familiar with using it were partnered with a 'buddy' who had previous experience using PlanGrid.

Importantly, PlanGrid allowed the team to accurately track and record changes made to the NEC site, which will help when the building eventually returns to its former state.

Cloud-based Construction Management Provides for Seamless Handoffs

Improved field collaboration thanks to the use of PlanGrid meant that the project could be completed at lightning speed and provide seamless and swift handoffs during and after completion.

"The fact that we could date and time stamp plans meant that there was no confusion or miscommunication between those working on the ground," says Harmer. "Being able to store photos also meant that any changes made to the NEC could be accurately recorded, which is so important for when we come to return the space to its original purpose."

"The feedback from both the Interserve team and our supply chain partners was excellent," said Harmer.

"The nature of this project meant all those involved were working around the clock to get the facility complete. Dayshifts and nightshifts blurred into one. However, the handover process between these shifts was seamless because everything was audit trailed and up to date."

"Using a cloud solution allows you to pull and print off reports and means that as a Project Manager, you can

"Using a cloud solution allows you to pull and print off reports and means that as a Project Manager, you can make sure the right people are doing the right tasks. PlanGrid was the right tool for this job."

-Dan Harmer
Project Manager,
Interserve Construction

make sure the right people are doing the right tasks. PlanGrid was the right tool for this job," says Harmer.

Cloud-based Construction Management Provides Record-Breaking Results

In Birmingham, the NHS Nightingale was built in just nine days by more than 50 Interserve Construction and Engineering Services employees and more than 400 sub-contractors. Achieved in record time whilst observing the required strict social distancing guidelines, the facility will provide resilience to the UK's NHS if needed in the battle against Covid-19.

Using PlanGrid helped in all aspects of the project's lifecycle, meaning that handover, as the construction phase of the project, was a smooth and speedy process.

"Being able to photograph any snags and create a report that captures them at a point in time helped us rectify any issues as soon as we could," says Harmer. Within 48 hours, the handover was closed out, and the facility was ready to be used.

86,000 construction hours were clocked up during the project, delivered to the most exacting clinical standards.

"Not the largest project I've ever worked on, but arguably the most important one," says Harmer. "To me, the project was underscored by innovation, new working practices, design solutions, and new technology. For those involved with the project, there was not only a great sense of achievement for delivering such an awesome project but also an overwhelming sense of national pride."