



## CASE STUDY BRADFORD ROYAL INFIRMARY: WOMEN'S & NEWBORN UNIT

### PROJECT

Women's and Newborn Unit at Bradford Royal Infirmary

### VALUE

£2 million

### SERVICES

Mechanical, Electrical & Public Health Design and Build

### CLIENT

Bradford Teaching Hospitals NHS Foundation Trust

### CONTRACTOR

Tilbury Douglas

### DURATION

22 months

### G&H DIVISIONS

Building Services



### ONE OF

the UK's busiest maternity wards

### WORKED

coordinated and flexibly in a live hospital environment

### CREATED

systems to ensure continuous contingency power

### EXTENSIVE

coordination and collaboration with hospital and contractor

### DELIVERED

a class-leading newborn unit

The new build, re-purposing and refurbishment of the Women's and Newborn Unit saw G&H Building Services deliver an intensive mechanical, electrical and public health (MEP) scheme at one of the country's busiest maternity wards.

The project for Bradford Teaching Hospitals NHS Foundation Trust was delivered in partnership with the main contractor Tilbury Douglas.

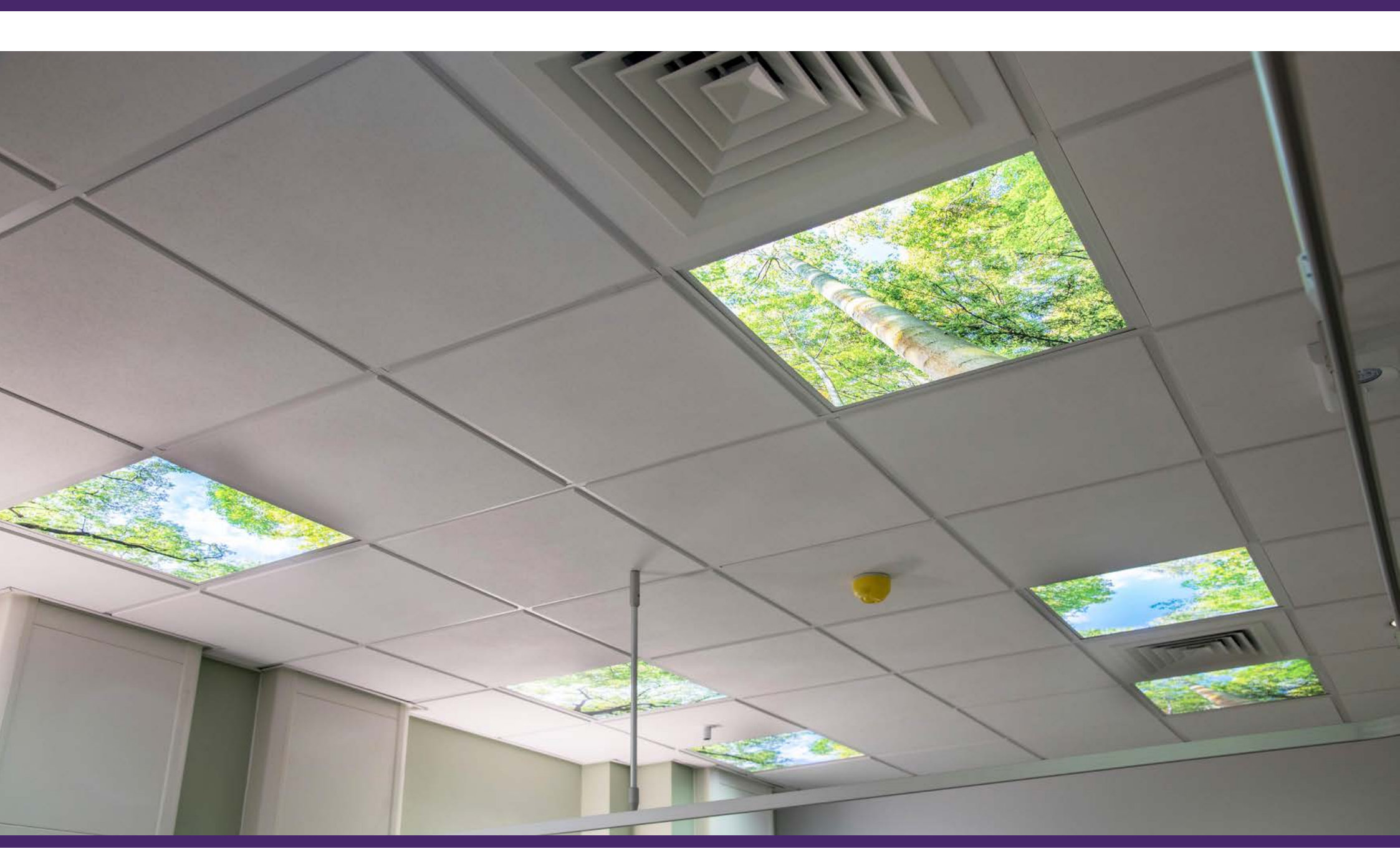
Initially, a two-storey 326 sqm extension was built at Bradford Royal Infirmary featuring two new maternity operating theatres and a rooftop plantroom.

The new unit replaces existing operating theatres and improves the overall obstetric and labour ward facilities.

G&H Building Services carried out the full design and build for the project that required intensive planning and coordination to ensure power remained live and secure at all times given the importance of the fully functioning hospital.

Heating, ventilation, lighting - which included medical pendant lighting - isolated power supply, uninterrupted power supply, data, a nurse call system, access controls and a fire alarm was installed.

Other services included two air handling units and a medical gas compound that were integrated into the hospital's existing systems.



Generators were used for contingency while power was turned off, connected to the main infrastructure and then turned back on.

Phase two of the scheme saw two existing maternity theatres overhauled and transformed into high dependency units.

This consisted of a complete removal of existing mechanical, electrical and medical supplies from the redundant theatres before turning them into extra medical care suites with en suite bedrooms.

Building services included the design and installation of new lighting, essential and non-essential power, fire alarms and a nurse call that linked to the system installed in phase one.

Mechanically, we refurbished the existing AHUs and medical piped gasses served from newly installed AVSUs, replacing the pre-dated system.

The work required us to work in extremely tight conditions due to the rooms backing onto a live corridor between the maternity ward and the new born unit.

We operated considerably throughout and with great flexibility given the hospital's need to deliver pre-arranged and emergency medical procedures.

G&H Building Services Contract Engineer, Paul Moss, said: "This was a very challenging scheme that required extensive coordination with the hospital and main contractor throughout."

"Access points also were very tight in what is an incredibly busy hospital site and we had to ensure there was no downtime when installing new power supplies."

The project was delivered on programme, transforming the Women's and Newborn Unit, equipping it with the best modern day facilities to help improve safety and the experience when giving birth in the hospital.

