

**More than just a brief.
A hospital reimagined.
Challenge accepted.**

HOARE LEA & ALDER HEY IN THE PARK



DAVID / 20.03.11 / SENT 19:35PM

Great to see the plans. Project of a lifetime.

It was a brief many of us at Hoare Lea dream of... to completely reinvent the idea of how a hospital should look, feel, and function. Alder Hey had rejected a simple refurbishment of its outmoded Edwardian building, and instead chose to build a state-of-the-art facility from the ground up, putting health & wellbeing at its heart.

Coming to the project once Laing O'Rourke was chosen for the design and build, it tested and challenged our expertise like never before... but, ultimately, Alder Hey in the Park has transformed the future of hospitals as we know it. And, without a doubt, it was worth every ounce of our effort.

STEVE / 20.03.11 / SENT 20:15PM

Couldn't agree more. Let's get started!

“We were looking for a hospital that was unique in design but provided the very best environment for our staff, our patients, and their families.”

CLIENT: LAING O'ROURKE
CONSTRUCTION COST: £162M
SITE SIZE: 60,000M²



Our approach.
Meet Steve Clifford,
Partner and our healthcare
sector lead.

“It was already a challenging brief. But with the added drive of knowing how much this building could truly change the lives of very ill children, we knew there was no room for anything less than ground-breaking innovation.”



Alder Hey in the Park, Liverpool.



**A HOSPITAL
 IN DISGUISE.**

The Alder Hey NHS Trust’s brief called for a unique paediatric environment that, together with adjacent Springfield Park, would form an integrated ‘Children’s Health Park’. The vision for the project emphasised innovation and clinical best practice.

The brief was ambitious and aspirational: the creation of a ‘children’s healthpark’ rather than a hospital. Ideal concepts such as ‘greenery’, ‘views’, ‘therapeutic’ and ‘innovative’ were specified, alongside a requirement for the building to be fundamentally clinically functional and sustainable.

**PATIENTS
 WITH VISION.**

But of course, these aims also had to work with what patients, families, and staff wanted. One of the biggest public consultation processes ever run by the NHS highlighted a communal vision: easy access to outdoor spaces; a building that didn’t look like a hospital; and a place where children could recover quickly, have fun and play.

The 60,000 square metres of hospital – the equivalent of eight football pitches – also had to be completed to an extremely tight timescale, requiring the modular construction of services off site.

SERVICES PROVIDED

MEP

LIGHTING DESIGN

VERTICAL TRANSPORTATION

SUSTAINABILITY

AIM: UK’S MOST SUSTAINABLE MAJOR ACUTE HOSPITAL

INNOVATIVE THINKERS

**CLINICAL EQUIPMENT:
INVISIBLE BACKBONE.**

When you need a hospital to not feel like a hospital, the rule is simple: hide or change anything that is associated with such a place.

That was where we came in.

We were heavily involved in the design development process, working closely with the design team, and attending user group meetings to develop the brief. Our Lighting Design team also developed designs that ensured the spaces felt fresh, welcoming, and warm.

The MEP systems and services needed to work with the balance of wellbeing-centred design and clinical equipment requirements.

New resilient infrastructure was designed to support the new hospital including boiler plant (gas fired and oil), water storage, and electrical generation. This involved successful negotiation with the utility supply companies to reserve capacity – both for main incomers and secondary supplies for resilience – and ensure the design of buildings would house their equipment.

**SUSTAINED
ASPIRATIONS:
COMPLEX DIAGNOSIS.**

Meeting the Trust's aspiration to be the most sustainable major acute hospital in the UK involved a vast portfolio of measures, passive and active, big and small, requiring a collaborative effort from the whole project team. We also had to target four key areas: energy, carbon, on-site renewables and on-site electricity generation. This made for a truly complex task. We had to find a balance of systems that would produce and recover power while maintaining a low level of energy consumption. The client also wanted – and achieved – a BREEAM Excellent rating.

**TARGET PRACTICE:
MODULAR MAKE UP.**

We developed the design in BIM using the experienced skillset of our Digital Engineering team. We then worked with the subcontractor CHT to finalise the design and to enable the services installation to be manufactured off site in six-metre corridor modules. This effective form of construction allowed for maximum efficiency and quality, which was integral to the project's tight timescales.

5 days
for the move,
October 2015.

60%
electrical power
generated on site.

Good
2017 Care Quality
Commission rating.



1st

CHILDREN'S HOSPITAL
IN EUROPE TO BE BUILT
IN A PARK

275,000

PATIENTS TREATED
EACH YEAR

48

BEDS IN ONE LARGE
CRITICAL CARE UNIT

5

STOREY-HIGH
ATRIUM CONCOURSE

1,200

SPACE MULTI-STOREY
CAR PARK

75%

SINGLE EN-SUITE
ROOMS

16

THEATRES INCLUDING
ONE HYBRID THEATRE

270

BEDROOMS ACROSS
SIX WARDS

3

BALCONIES WITH
ACCESS TO PLAY
AREAS, NATURAL
LIGHT, AND VIEWS
OF THE PARK



Light-filled spaces connect children, staff, and families with the outdoors.

Project impact. Heralding a new future in hospitals.

For many of us at Hoare Lea, Alder Hey in the Park was a project that became more than just a job. The fundamental aim of improving children’s wellbeing added a new level of focus and emotional investment to our already dedicated teams. It’s the Alder Hey staff who make lives better, but we were humbled to be able to design services that make their jobs that little bit easier.



Easy access to outdoor space for staff and patients.



One of 16 theatres, including one hybrid theatre.



A NEW STANDARD IN SUSTAINABILITY.

Our in-depth energy analysis, and the resulting BREEAM Excellent rating means the hospital sets a new standard in sustainability. The incredible result is down to the creative approach we took to the MEP service design; a real first for us in the healthcare sector, and certainly on this scale. Our work on Alder Hey in the Park has paved the way for human-centred approach within the sector by showing how it could be achieved for such vast 24-hour hospital and research centre. It reinvents what is possible for sustainability in healthcare buildings... and others are already following.

“The excitement now is this innovative hospital performing in practice, and what we can do to further optimise performance.”

DAVID ARMSTRONG
HOARE LEA PARTNER & PROJECT LEAD

OPTIMISING PERFORMANCE IN PRACTICE



WARM WELCOME

Curved lines give the building a softer, more welcoming feel.



OPEN HEART

Each finger of the building leads to the light-filled central atrium.



OUTSIDE THE BOX

The health park defies the typical 'square box' hospital design.



SINGLE SPACES

Patients benefit from bright, single, en-suite rooms for family groups.



LIVING FAÇADE

Green walls make the building seem part of the park itself.



GREEN GOODNESS

External lighting is integrated with the outdoor landscaped spaces.



People-centred design made possible.

“Alder Hey in the Park is a truly special, unique building – a world-class healing environment for children and young people.”

HEALING SPACES

Listening to the views of patients, families, and staff was vital to Alder Hey in the Park's success.

We worked on services for the innovative Critical Care Unit layouts that allows patient bays to curve around a staff base that's flooded in daylight via a roof light. Our MEP designs helped ensure that the architectural vision – which was for almost all rooms to have a view of the park – could be a reality. Access to outdoor space at the end of each ward connects children with the natural environment even if they have a long in-patient stay.

And it's not just 'nice-to-have' design: research has shown that patients with access to views filled with light and greenery are more likely to recover faster.

It's a true departure from the typical idea of a hospital, pushing the boundaries of what's possible on a building of this scale and complexity further than ever before.



Achievements recognised. Winner of:

- Civic Trust Award 2017.
- Prime Minister's Better Public Building Award, British Construction Industry Awards 2017.
- RIBA National Award 2016.
- European Healthcare Design Congress Award 2016, 25,000m²+ project.
- Sustainability Award and Building of the Year. RIBA North West Awards 2016.
- Project of the Year, Community Benefit and Design Through Innovation. RICS North West Awards 2016.
- National and North West Community Benefit accolade, 2016 RICS Awards Grand Final.
- Public Sector Interior Project. UK Mixology Awards.



COMPLETED WITH PRIDE





Engineers of human experiences.

Hoare Lea is an award-winning engineering consultancy with a creative team of engineers, designers, and technical specialists. We provide innovative solutions to complex engineering and design challenges for buildings.

Irrespective of the scale or complexity of a project, we provide a full range of MEP, environmental, and sustainability services, bringing buildings to life and ensuring that they perform in operation as well as they look.

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