HOARE LEA & SCHOOLS

HOARE LEA

Forging the future of learning. Design that delivers.

HOARE LEA & SCHOOLS

TRUSTED RELATIONSHIPS

“Government investment in school building programmes continues unabated, meanwhile school design has never been more sophisticated. Real care and experience is required to rise to these complex challenges.”

ANDREW WARRACK
PARTNER & HEAD OF SCHOOLS

GOLDEN LANE, LONDON

Photo: Peter Durant

A progressive and positive approach.

Andrew Warrack, Head of Schools.

Schools are a vital, influential part of our country's social infrastructure. Any modern school facility requires a design approach that's progressive and future-focused. With the fast pace of change showing no sign of abating, school buildings must provide truly flexible learning environments.

The decades that we've spent designing schools and academies have given us a wealth of experience. We understand the particular needs of every project type: from extensions and refurbishment, through to major multi-site new-build developments, and Priority School Building Programme (PSBP) schemes. We recognise that engineering in schools goes far beyond pipes and wires – and we relish the challenge.

Our approach to schools and academies.

- We take an active part in supporting a bid-winning approach.
- We design with affordability in mind, ensuring we always provide deliverable, workable solutions.
- We have a close relationships with regulatory bodies, such as the ESFA, which gives us an indepth knowledge of current and future regulatory requirements.
- We use our innovative and simple-to-understand visualisations and animations to engage client teams throughout the CEM process.
- We bring together our specialists in areas such as daylighting, sustainability, fire engineering, and acoustics to provide a holistic consultancy service tailored to the needs of the education sector.

HUMAN-FOCUSED DESIGN

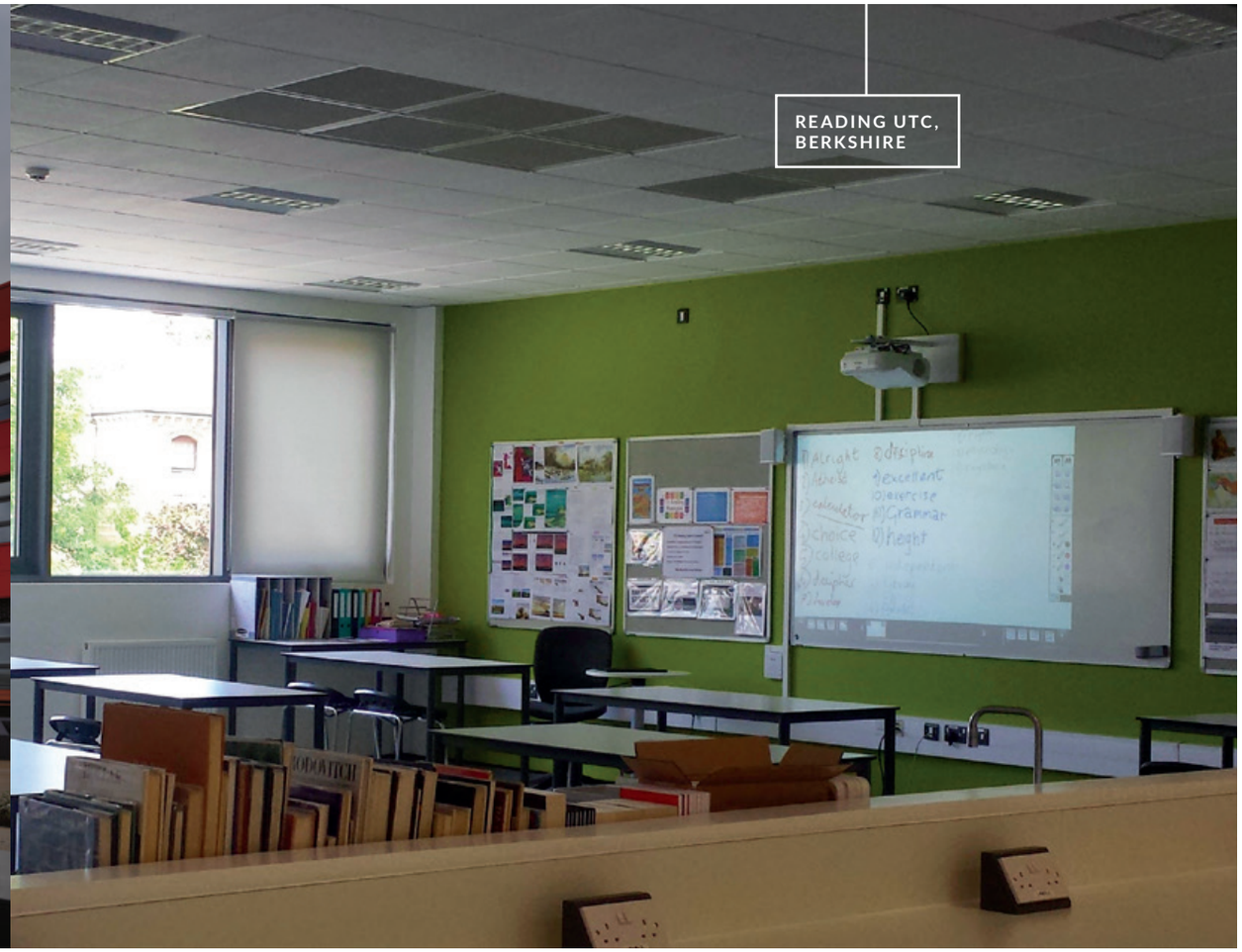

Photo: Nicholas Hare Architects

New builds. Meeting contemporary aims.

We have an enviable track record in designing schools that meet both the technical requirements and the funding envelopes of new schools. We focus on flexible, user-centred solutions to ensure developments can meet the expectations of today's school environments in the most efficient way.

Refurbishments. Targeted transformation.

We understand the importance of engaging with the supply chain to make sure that the money invested in every scheme is used in the most effective way possible. We are committed to retaining and remodelling systems where they are capable of being reused, and introducing and replacing systems where needed.

CGI images: Hoare Lea

Invaluable bid support. Engaging with the ITT process.

Contractor teams are supported by our dedicated client engagement process. We understand that users and stakeholders are almost always focused on energy costs and comfortable teaching environments. Our experience of the right level of information to share alongside our early simulation modelling both reassures and inspires them. With pioneering visualisation techniques (images, animations, 3D environments), we are able to engage with client groups in the most effective way, and this if often a point of difference when it comes to selecting the successful team.

From the client.

“When it comes to explaining building services in context, Hoare Lea’s use of VR technology has been a game changer. It’s this engaging with our customers that has been the real positive.”

David Wilson, Head of Design, Kier Construction

HESSLE HIGH SCHOOL, YORKSHIRE

Meeting new national demands.

Designing to the national frameworks.

With every new government and – indeed – often within incumbent governments, come changes to the national schools frameworks. From additions and amendments to complete overhauls and radical change, the one thing that is guaranteed is the need to adapt quickly and cost-effectively to the new approach.

As leaders in the technical arena, we have acted as a consultant to the Educations Skills Funding Agency, and contribute to Building Bulletins – helping to shape the new specifications. This insight and influence ensures we can work 'ahead of the game', collaborating with national contractors to develop solutions that deliver against every new requirement and consider those that may be in the pipeline.

SCHOOLS TREND – 1 FRAMEWORK ADAPTION

Photo: Stanta

Achieving more with less.
Hoare Lea & Aureus.

SCHOOLS TREND – 2
ACHIEVING MORE WITH LESS

When cost constraints drive creative innovation.

While the Government is supporting both new-build and renovation schemes, the funding envelope is still extremely lean. This doesn't mean the teaching environment has to be compromised. By working closely with the ESFA, schools, and framework contractors, we craft carefully considered solutions that fully optimise the spend and provide maximum value to the school. These solutions span every part of the process: from early engagement with structural engineers and architects so that grids are orientated to prevent clashes, to optimising window design not just for daylighting, but also ventilation and acoustic control. Importantly, we use Revit to ensure unprecedented levels of coordination and efficiency throughout the design and construction period.

Achieving efficiency for Aureus.

Aureus School, a brand new, state-of-the-art 11-16 comprehensive for Didcot opened in September 2017. As part of GLF Schools, the building had to provide the holistic and wellbeing-based learning environment that the school needed to deliver. Added to this, the brief was for the most efficient future-proof building possible within the funding budget.

The architectural vision was to create two teaching 'fingers' arranged around a central hub. This hub would contain open-plan learning spaces designed to maximise natural daylight. Our experts in MEP, Fire Engineering, and Acoustics coordinated with the wider project team to ensure this would be a safe, acoustically sound space that could be passively ventilated. This controlled natural ventilation solution means the building not only meets the current overheating standards, but is fully able to deal with more demanding requirements in the future. Thanks to this wide range of cutting-edge servicing strategies we developed, the building achieved the latest comfort criteria as well as the lowest possible running costs and carbon emissions.

Agile spaces that enable:
Health & wellbeing.
Mindfulness.
Community.
Dynamic learning.
Energy efficiency.
User control.

PROJECT NAME: AUREUS SCHOOL

PROJECT TYPE: NEW-BUILD ACADEMY

VALUE: £19 MILLION

CLIENT: KIER CONSTRUCTION

Optimisation. Challenging buildings to be better.

Ensuring environments perform at their best.

Increasingly, developers and schools are realising that the performance of an educational building is the true measure of its success. How it lives and breathes in reality can be very different to what design solutions specify. This the ‘performance gap’ is a common occurrence.

Eliminating the performance gap is achievable in education buildings, but it requires extra effort at all stages of design, construction, and operation. In response, we are performance ‘champions’ on every project. We have a dedicated team of experts who analyse every element that might impact building performance, interrogating established buildings and quickly solving ‘teething’ issues in new ones.

Photo: Peter Durant

A holistic approach.
Hoare Lea & Barlby primary + SEN school.

SCHOOLS TREND – 4
HOLISTIC DESIGN APPROACH

A one-team approach for maximum efficiency.

Affordability of proposed schemes is a paramount concern to the funding agencies, users, and to the contractors tasked with delivering schools and academies. We understand this, and can bring together a range of specialist design teams from across our firm: from fire engineering and lighting design, to acoustics and sustainability. These holistic designs are based around tested approaches that we know can be delivered. Our experts across these specialist areas understand the stringent timescales when delivering design. A vast amount of information is required for contractors to produce costed proposals and beyond. By working as one team, we have the ability to streamline the process and, therefore, deliver information to the supply chain as early on as possible in the process.

Bringing connected design to Barlby community schools.

Good school design relies on the whole team having a common goal and a shared vision. This scheme involved the rehousing and expansion of the existing Barlby primary school along with a separate 80-pupil Special Educational Needs (SEN) school, the first of its kind in the borough. We were able to provide a truly holistic design approach by delivering MEP, Acoustics, Air Quality, Lighting/Daylighting design, Security, Sustainability, and Fire Engineering.

In order to improve each building's efficiency and reduce construction/maintenance costs, we designed shared systems but still gave each school its own bespoke environmental services. From an early stage, we held collaborative meetings with the client, headteachers, and project team in order to ensure all design elements would work together to both enhance the children's learning environment and be energy efficient. The best example of our cross-discipline approach was in ensuring the building's orientation and ventilation system could maximise natural daylight, minimise unwanted solar gains, improve air quality and thermal comfort, reduce external noise, and – ultimately – achieve a low-energy building that achieved an impressive BREEAM rating of Excellent.

Photos: Jack Hobhouse

Unique learning experience.

Cambridge Academy for Science and Technology.

TRANSFORMING THE TRADITIONAL SCHOOL

The ultimate flexible teaching environment.

The Cambridge Academy for Science and Technology provides a blend of vocational training with specialist technical teaching. Located in the heart of the Cambridge Biomedical Campus, it's supported by both the University of Cambridge and a range of commercial sponsors.

The striking building designed by Hawkins\Brown needed to deliver a similarly impressive internal environment. Our brief was to embrace an industrialist design approach, with exposed services and large open-plan areas. No space better exemplifies the success of this ambition than the super labs. Our Science & Research and Acoustic teams meant we could support the formation of these duel-aspect spaces that can provide three simultaneous lessons.

To further support the vision, our experts developed a fire engineered approach to not only accommodate the large spaces, but also permit the building to be bathed in natural daylight from a series of large rooflight and void spaces. The result is a series of truly unique spaces that are yet to be seen in any other school.

PROJECT NAME: CAMBRIDGE ACADEMY FOR SCIENCE AND TECHNOLOGY

PROJECT TYPE: NEW-BUILD

VALUE: £12 MILLION

CLIENT: BAM CONSTRUCTION

“The UTC project was a superb case of how to achieve something rather special on a budget.”

GARY WOOLLEY
ESTATES MANAGER

Photo: Jack Hobhouse

Experience makes all the difference.
A reassuring reputation.

As a leader in school design, we have delivered more than 60 schools and academies during the last five years.

Heyford Park Free School.
Split campus on recommissioned RAF site, plus refurbishment of a Cold War era sports facility to provide specialist teaching spaces.

Maiden Erlegh School.
A new free school in Reading that builds on the existing school and incorporates renewable technologies.

Walton High School.
This secondary on the outskirts of Milton Keynes is one of the UK's largest schools and had a bespoke yet standardised design approach.

SEMH Leeds schools.
Social, Emotional, and Mental Health (SEMH) facilities delivered through three new strategically located schools for Leeds city.

Harris Academy.
A low-energy, highly-efficient 1,150-pupil secondary school building constructed while maintaining the existing school.

Priestmead Primary.
Redevelopment for the largest primary school in the UK, involving phased demolition and a new-build primary and nursery.

Blackburn Central High.
The amalgamation of three existing schools into one. The vast building has 80% of its heating needs met by a biomass boiler.

Strood Academy.
State-of-the-art development to transform poor-performing schools, with a focus on renewable energy.

Chobham Academy.
Renovation of the 2012 Olympics security control centre structure into an all-age academy for a newly formed residential community.

Francis Askew.
An eco new-build primary school built on existing school grounds in Hull. Can cater to 420 pupils, along with a 39-place nursery.

Hessle High School.
A new-build secondary school, plus refurbished listed building. Located in East Yorkshire, it is part of The Consortium Academy Trust.

Oxfordshire UTC.
A new-build specialist STEM college in Didcot on a two-hectare greenfield site, which blends academia and vocational training.

HOARE LEA

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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Designed and produced
by Hoare Lea

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