

# redboxdesign group 🦉

This brochure has been assembled to demonstrate the background of redboxdesign group and to provide a detailed explanation of the entry.

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# approach

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# architecture

In 2010 **redboxdesign group** celebrated 25 years in practice, and since 1985 has designed and built over **15 million square feet** of accommodation, with a combined value of over **£4 billion**, amassing an award winning portfolio of major projects for blue chip clients.

The work has been completed across a variety of sectors, including:

- 6.5 million square feet of commercial office space
- 2.5 million square feet of Sport, leisure and hospitality facilities
- 2.25 million square feet of industrial space,
- 1.25 million square feet of high street retail,
- 1.5 million square feet of educational facilities, and
- 3,000 houses, flats and apartments.

Projects have spanned the length and breadth of the United Kingdom, Amsterdam, Boston, Vietnam, Moscow and most recently in China.

We deliver projects from our head office in Newcastle upon Tyne, UK, with temporary offices being set up on site as necessary to service specific client or project demands.

The Directors and all of the forty strong team feel privileged to have been able to play a small part in making a difference to the urban landscape, and in helping **to shape people's lives**.

redboxdesigngroup has a simple mission - to deliver strategic and executive architecture, interiors, digital media and art for the public and private sectors - through its three trading subdivisions - redboxarchitecture, redboxinteriors, and redboxgallery.

We are driven by the belief that good design will always be good design, and therefore quality design, commitment, personal service and enthusiasm are the foundations upon which the whole group is built.

Within **redboxarchitecture** we are committed to delivering high quality environments, realising that our work not only makes a huge impact on the built environment but that it also makes a **huge impact on the shape of people's lives, providing a lasting legacy of quality for the future and shape of our cities.** 

We are interested in the design and production of long life, well finished buildings which fit ergonomically and economically into existing urban frameworks, and we are rather less concerned with passing fashion and 'style', but in producing manageable low maintenance buildings that exude intrinsic quality for many years to come. We create sustainable and cost effective environments where success is inevitable.

We fully understand the commercial pressures facing our clients. We are however passionate as designers, and respond by moving quickly at proposal stages, ultimately producing buildings which build, sell or let well, and are completed on time, within budget, and which are a pleasure to live, learn, work or play in

We like to think that this whole process is fun and that our clients enjoy the process of working with us!

### architecture

The Practice has **pioneered mixed-use and sustainable urban regeneration projects** for many years, and has initiated a number of leading-edge projects, including the Red Box Development in which the Practice is headquartered in Newcastle upon Tyne.

We have a **significant portfolio of residential, commercial, industrial, retail, sport and leisure, and educational projects** completed for blue chip clients. Our cross-sectoral experience enables us to think laterally in solving design problems and generating fresh ideas, the breadth of those ideas being equalled only by the depth of technical experience, with an average of nineteen man-years per capita.

Our success is underpinned by our team of driven, motivated, and exceptionally talented individuals, and our policy is to recruit and retain dynamic, high-calibre personnel and empower them to forge responsive and supportive relationships with clients. Teams operate within an overall quality management structure, with one of the Directors retaining a close and personal involvement in each project working alongside the design and delivery team.

We are also active in **University teaching** and work-based training programmes, and are committed to the personal development of all team members. The Group has received much recognition for its active support of education through University and Grammar School Bursaries; primary and secondary school mentoring, as well significant financial donations to assist individual students from financially challenged backgrounds.

# human

It is a privilege to shape places so we approach the task of designing with humility, knowing that the work we do affects the lives of many and for a very long time.

We take our responsibility seriously, not really aiming for buildings that scream to be seen in magazines but crafting buildings that respect the environment and that sing from their heart.

We design buildings of quality that will happily fulfil their purpose not just today and tomorrow but for many generations to come. We consider the symbolism of the form and the context of each building: the mood of the place; the way that designs will evolve in their environment; and the impact that a building will have both locally and globally.

Our buildings are designed to reflect their cultural and emotional context, set to a specific purpose. We design with human emotion and human needs in mind. And whether for living, learning, working or playing, we design to enable creativity, enjoyment and success.

### human



#### Alan J Smith OBE, DL, B.A. B.Arch. R.I.B.A. F.C.S.D. F.R.S.A. Chairman

As Founder and Chairman of redboxdesign group Ltd Alan has been at the forefront of business expansion over the past 25 years, overseeing the opening and operation of offices in London,, Amsterdam and China and the establishment of interior design and new media design services as well as founding the Red Box Gallery.

Alan's basic philosophy is that **good design will always be good design** and that it does not cost a penny more than bad design and is good for the planet.

Furthermore his passion has been, and remains, a desire to surround himself with energetic capable individuals who share that passion and who want to take redboxdesign group into the intellectual pantheon that will be the 21C.

Quality, design, commitment and personal service are the maxims which sustain Alan's key role in managing the redboxdesign group.

In every project Alan's involvement is in the detail of the concept and the concept of the detail. Awarded the Freedom of Gateshead in 2012

Awarded an Honorary Doctorate in Business Administration in 2008 by Sunderland University.

Appointed **Deputy Leiutenant of County Durham** in 2008.

Awarded the **OBE** in 2007 for his services to architecture.

Fellow of Chartered Society of Designers FCSD 1992

Royal Institute of British Architects RIBA 1976

Architects Registration Board ARB 1975

University of Newcastle Bachelor of Architecture (Hons) 1974

University of Newcastle Bachelor of Arts in Architectural Studies (Hons) 1971

# human

Barry Farrar B.A. B.Arch. R.I.B.A.

Managing Director

Barry is responsible for managing the redboxdesign group. Over the past 20 years Barry has gained extensive experience on the delivery of major commercial, industrial, retail, leisure, hospitality and specialised projects such as education and nanotechnology, all for blue chip clients. His energy, enthusiasm, positive attitude and ability to work well as a design and production team leader have allowed him to drive complex projects to successful, often award winning completions. **University of Newcastle** Professional Practice and Management

University of Newcastle Bachelor of Architecture and Urban Design

**University of Newcastle** Bachelor of Arts in Architectural Studies

Royal Institute of British Architects RIBA

Architects Registration Board, ARB



### human



#### Andrew M Clark B.A B.Arch R.I.B.A Design Consultant

Andrew has great experience of a broad range of building types and masterplanning projects, and has been responsible for many of the most significant commissions completed by the Practice. He has particular skills in interpreting and extracting the most complicated client's brief and translating it into a high quality solution, without losing sight of technical or commercial realities. As a result his design and management skills have always been in great demand, and particularly successful in competition. **University of Newcastle**, Professional Practice and Management

**University of Newcastle**, Bachelor of Architecture

University of Newcastle, Bachelor of Arts in Architectural Studies

Royal Institute of British Architects, RIBA

Architects Registration Board, ARB

Long before **sustainability** became a requirement we were designing low maintenance, flexible, long life buildings that achieve excellent sustainable outcomes.

We have worked hard to pioneer new ways of **minimising the use of energy and natural resources** whilst reducing carbon output meaning that many of our projects are rated as **outstanding examples of sustainable design** in impact and performance.

We have long accepted that sustainability is a key ingredient to the ongoing wellbeing of the planet, people and places. With that idea in mind we are committed to continuing our pioneering practises to achieve yet greater standards of excellence in the practice of sustainable design.

Our approach to sustainability reflects our long held belief that **good design should not cost a penny more than bad design**. We consider sustainability from the outset of each project, ensuring that the building aspect and form fit appropriately with the environment, and then we aim to create detailed designs that are practical, effective and easy to maintain. We seek to produce solutions that are fully acceptable to clients and funders alike.

education



# education

# education



# education



### **Durham Primary Schools**

#### Location/Client/Value

Esh Winning & Brandon, County Durham/ Durham County Council / £13m

## education

#### **Scheme Description**

As part of a lasting architectural legacy redboxdesign group has recently completed the UK's most sustainable schools – and in the process will help to create a 'next generation' of young people who will carry the sustainability message with them for life.

The schools at Brandon and Esh Winning in County Durham are neither 'showoff' architectural monuments, a major failing of many of the schools built under the BSF initiative of the last government, nor are they adorned with obvious environmental gimmicks.

They are cleverly designed in a discreet and understated way to ensure the ethos of sustainability runs through not just the buildings but also the communities they serve. Natural ventilation, solar shading, abundance of natural light together with internal courtyards all combine to provide a dedicated and considered learning environment.

There are no high-maintenance gadgets or grandiose embellishments, just simple sustainability, such as robust construction using long-life materials, imaginative design solutions to create excellent learning environments and smart use of environmental technology, for example free heating and cooling from the ground by the use of 'earth tubes'.

The outcome is an astonishing 90 per cent reduction in carbon footprint compared to 2002 Building Regulations!

#### The Brief

The brief from Durham County Council was to create the most sustainable schools in the UK and that is about more than just the fabric of the school – it presented an opportunity for the children and their parents to learn about all aspects of sustainability from the sourcing of food for school meals, to the way that children travel to school.

The schools are intended to be used by the wider community, both after hours and through the day, but they are clearly zoned and secure with publicly accessible areas separated from the day-to-day use of the school.

It's not just about a sustainable build but also the ongoing costs of use and of course life-cycle considerations which have been woven into the design development to make head teachers' lives easy and budgets more manageable for years to come – vital in these penny-saving pound-conscious times.

#### **Modular Flexibility**

Created around a modular regime the designs are themselves recyclable and could be replicated on any site within the UK. Coming complete with a flexible internal planning scheme the model can also be easily adapted to suit differing and evolving learning methods.

By reusing the designs on future school projects, further efficiencies and economies will be developed to drive costs down and quality up, without compromising any of the key elements or main agenda of sustainability.

The buildings are designed to reflect the core values of the institutions they serve - such as being welcoming, nurturing, caring, safe and happy places – as well as redbox's own never-out-of-fashion mantra - quality, practicality and sustainability.

They are low key, comfortable, and easy for children to understand and navigate. They are not complex, but carefully considered and interesting. Interiors are designed to focus on the children's work, and internal colours are neutral to allow their work to dominate.

# education

#### James report significance

The recent James Report into Review of Education Capital highlights a number of issues with previous procurement and design focus' which redbox has already sought to address, prior to the reports publication.

Whilst sustainability is high on the agenda, a considered approach to overall project procurement has influenced the designs from an early stage.

Sustainability is more inherent in the design than gimmicky additions, often a get-out clause for schemes seeking to increase sustainability points. Items such as green roofs, which can be expensive to maintain and become a burden rather than helpful on school's maintenance budgets.

The design allows a kit of parts and design approach which can be adapted to different sites and environmental settings, illustrated in the subtle differences the two schemes.

The design is not a flat pack, one size fits all approach. The redbox approach still allows for increases in standardised drawings and specifications for continuous improvements.

Quality and value can drive the approach to further school designs, drive costs down and quality up, without compromising any of the key elements.

#### Core values

The buildings are not designed as architectural monuments. We have drawn our inspiration from the core values defined by the schools themselves:

- Preparing, developing, achieving
- Welcoming, nurturing, caring, safe, happy
- Team work, inclusive
- Sustainable



# education

#### Summary

- The first Outstanding BREEAM schools in the country
- 90% carbon reduction compared to 2002 Building Regulations standards
- Renewable energy sources which, when combined with 'feed-in tariff' and 'renewable heating incentive' mean that the school will not pay for normal energy use and will in fact be paid for exporting surplus energy back to the grid.
- Robust construction long life materials brick, block, plaster, engineered timber windows, fibre-cement panels.
- Simple sustainability to give an excellent learning environment, including:

- Classroom windows shaded with canopies
  to avoid overheating, whilst also provide
  covered external learning areas
- Internal courtyards to provide natural ventilation to deep spaces and quiet private external learning spaces
- Natural and mechanical ventilation monitored and controlled using sensors to maintain low levels of CO2 to ensure that children are alert
- North light roof glazing to avoid glare and achieve high even lighting levels to classrooms to avoid the use of artificial lighting
- Easy to use practical or self regulating technology, including high thermal mass construction and 'earth tubes' to temper ventilation air to keep the building cool in summer and warm in winter

 No gimmicks. No green roofs that will require specialised maintenance in years to come. The buildings are not designed to look especially sustainable – they just are.

- Flexible building forms which can be used formulaically and adapted to any site

- Flexible internal planning which can be easily adapted to suit a variety of learning methods, and as methods change

- A community resource, but clearly zoned and secure with publicly accessible and community areas separated from the day to day use of the school

### education

#### Sustainability

Highly sustainable buildings that will not only provide excellent learning environments but will also raise awareness and promote wider sustainability issues to the building users and the wider community.

#### Low Carbon Design:

Designs have been developed following principles of low carbon design which can be summarised into three key steps;

- 1. Reduce the need for energy
- 2. Use energy more efficiently
- 3. Supply energy from renewable sources

<u>Reduce the need for energy:</u> Efficient building form, orientation to maximise day lighting, reduce solar gains, maximise natural ventilation, building fabric to maximise thermal performance and air tightness, design for flexibility and adaptability for long life buildings.

<u>Use energy more efficiently:</u> Be aware of the occupant's energy use; high efficiency services and equipment, automatic lighting controls, service zones to match occupant patterns, energy and water use monitoring.

<u>Supply energy from renewable sources:</u> Appropriate renewable energy technology, not just as teaching aids or to make the building look "green," but inclusion that makes effective use of renewable technology. Renewable technologies considered with regard to installation and life cycle costs and carbon reduction.

Following these low carbon principles coupled with an understanding of the BREEAM Assessment Method has enabled the Design Team to develop highly sustainable designs for the Durham Schools.

# education

#### Sustainability Framework

The Framework contains eight themes based on the DCSF eight sustainable doorways. The construction of the new school and grounds will enable the school to score well against the doorways for "Energy & water" and "Buildings & Grounds." Workshops with the local authority and schools have raised opportunities in the other six doorways to make the way the schools operate more sustainable. These wider issues fall into the six doorways of –

Food & Drink, Purchasing & waste, Travel & traffic, Inclusion & participation, Local well being, Global dimension.

#### Low and Zero Carbon Technologies

- Photo voltaic panels
- Bio-mass boiler (low carbon fuel source)
- Solar water heating
- Earth tubes
- Heat recovery

#### Other features of low carbon school design

- High thermal mass
- High levels of insulation and good air tightness
- Materials A & A+ rated in the Green Guide
- Natural daylight
- Shading to reduce solar gain
- Natural ventilation when external conditions permit
   & Mechanical ventilation with heat recovery
- CO2 and temperature sensors for excellent learning environments
- Energy and water use meters
- Efficient services
- High efficiency lighting and controls
- Rain water harvesting

### education

Formulaic design: that is easy to adapt to accommodate different school populations, Head Teacher preferences and other shared use and community facilities.

**Internal Flexibility:** long life buildings which are easy to adapt and change as learning methods change.

Layouts provide a number of spaces for learning including classrooms, external covered teaching areas outside each classroom and a central heart space with flexible break out areas, group rooms and courtyards - providing flexibility for lessons during the school day to meet modern methods of teaching.

Adaptability: Classrooms have the ability to be adapted into larger rooms by expanding into adjacent storage spaces. This is to accommodate changing sizes of year groups rather than day to day flexibility.

**Expandability:** The layouts allow for future expansion of the classroom wing with more classrooms and shared learning spaces added.

Lines of security & zoning: Secure lines within the building separate school and community uses. Zoning the building will allow community areas to operate independently before and after the school day.

#### **Excellent Internal Environment**

Temperature and CO2 sensors: Many other new schools have problems with overheating and high levels of CO2 creating poor learning environments. The ventilation system will monitor & control internal temperatures and CO2 levels in classrooms to ensure a high quality learning environment is provided.

**Courtyards:** create attractive and secure learning spaces at the heart of the school. The courtyards provide daylight into circulation routes; break out spaces and group rooms as well as providing a means of naturally ventilating these internal areas.

**Over heating:** is avoided with Timber canopies providing shade to full height glazing. The canopies also provide shelter to learning spaces outside of each classroom.

**Thermal mass:** provided by the building fabric reduces peak internal temperatures and reduce the need for mechanical ventilation. Heavyweight internal walls provide thermal mass with a lightweight roof. **Daylight:** The roof of each classroom has a high north corner to create high level windows to provide day lighting without the problems of glare on whiteboards and provide openings for natural ventilation.

The south facing roof of each classroom provides space for mounting PV panels.

Ventilation: The schools are naturally ventilated when external conditions are suitable and accommodate mechanical ventilation with heat recovery when it is too hot or cold outside to naturally ventilate. The fresh air for the mechanical ventilation is pre-warmed or pre-cooled by earth tubes buried in the ground to take advantage of free cooling of air in summer and free heating of air in winter.

**User Control:** The building is zoned to allow users to control their own internal environment.

Acoustics: Acoustics are important in learning environments and the schools are designed to comply with BB93 & BREEAM criteria.

## education

#### **Materials**

Materials were considered for their sustainable credentials comparing embodied energy, recycled and renewable content and Green Guide ratings as well as the maintenance, life cycle and durability requirements for the School.

**Recycling/ Re-use of materials:** High BREEAM targets were set for the Contractor to ensure materials avoid land fill and opportunities are explored for the use of reclaimed materials from any demolition works of existing buildings on site or their potential use on other projects.

Low Volatile Organic Compounds: Internal finishes and fittings were specified with low emissions of VOC's to provide a good internal environment. With products certified to meet the relevant standards in the BREEAM guide.

**Timber policy:** 100% of site timber was responsibly sourced and 100% legally sourced. This exceeds the minimum BREEAM requirement but is a client requirement.



# education

#### **Community Impact and Engagement**

A broad range of meetings and consultations took place during the feasibility and design stages of the project involving staff, pupils, head teachers, school governors, and local user groups, members of the local authority, library officers and the local community. The range of consultations can be summarised as follows:

• School Grounds Development Project

A consultation exercise by the Outdoor and Sustainability Education Service was carried out with the school staff and pupils to prepare a detailed brief for the school grounds. Feedback from the school on the initial designs was passed back to the landscape architect to develop the final proposals for the school grounds.

• DQI (Design Quality Indicator) Assessments

A DQI Workshop was held with key stakeholders and pupils at both schools during the briefing stage. The DQI for Schools briefing tool was used to record the Council's and School's aspirations for the project.

A further two DQI Workshops took place at each school at Stage D and once the new school buildings were complete. A final workshop will be arranged within the next twelve months to review how the schools have performed over their first full year of use. • c2a learning meetings

A series of meetings lead by education consultant c2a leaning were held to review specific issues with the schools including current and future engagement with parents, community, partners and multi agency support as well as discussions on pedagogy, curriculum and learner characteristics, inclusion and learning environments.

Community facilities meetings

Esh Winning : A series of meetings lead by the Council to develop the brief for the community facilities involving representatives from CYPS & the Council's Youth Team, the EWE Centre, the library, Esh Winning Community Association and the school.

Brandon: A series of meetings lead by the architect to develop the brief for the Day Care facilities and community training rooms with the school and Sure Start staff.

Architect's meetings with the school & community representatives

A series of meetings with Red Box Architecture, Graeme Plews (CYPS), head teacher, governors and other key staff; including staff from the Early Years Foundation Stage, Key Stage 1 and Key Stage 2, admin staff and the caretaker. The community representatives also attended these meetings which proved invaluable to understand the needs of the school and the community facilities and how the two areas of the buildings will work together.

• Parent and local community consultation

Following presentations to the school staff and governors consultation boards were displayed at the schools. Parents, local residents and the community were asked to complete questionnaires to gather feedback on the Stage C/D proposals. Feedback was generally very positive and residents thought the new facilities would benefit the local communities.

• Sustainability Framework

Following Sustainability Workshops, the "Durham Schools Sustainability Framework" was prepared by Arup. The Framework contains eight themes based on the DCSF eight sustainable doorways. The workshop involved a range of staff from the Council with an interest in the project, school staff and pupils and members of the local community to gather ideas for the sustainable schools. The Framework was further developed by Red Box to allocate actions for Durham County Council to progress to contribute to the wider sustainability of the project.

• Architect meetings with John Hedley. (Architectural Liaison Officer, Police HQ)

Security and pupils safeguarding is a key issue for the schools. Following meetings at RIBA Stage C & D the ALO was happy designs and security measures complied with the principles of Secured by Design.

## education

The new schools provide additional community spaces and shared spaces, including the school halls and dining spaces, for use during and after the school day.

At Brandon the Day Care facility for under 3's extends the provision of the Sure Start Centre and allows the school to care for children of pre-nursery age.

At Esh Winning the community facilities include a new public library, training rooms and meeting rooms.

At both schools the community rooms are used for breakfast and after school clubs and are available for mother and toddler groups and other local groups.

There are Community Use Agreements in place to allow local groups to hire spaces for social and community uses.

It is hoped that the new sustainable schools will educate not only the pupils but influence the wider community and raise awareness of sustainability.

The following testimonials provided by the Head Teachers at Brandon and Esh Winning Schools show the school and community facilities provide a positive experience for all users and the schools are very happy with their new facilities.

#### Brandon testimonial (Anne Charlton)

"The creation of a new community school is a massive undertaking, to create a building which is aesthetically pleasing, environmentally sustainable, and flexible to the children's educational needs is daunting, but the Redbox team have given Brandon a building which has made us all proud.

The original brief from the school was for space and light, easy access to outside learning areas and fun areas for children to play. We have not been disappointed. The team have achieved everything asked of them. Thank you so much on behalf of everyone in Brandon."

#### Esh Winning testimonial (Diane Kime)

"From the outset, the Redbox group included us in the design of our school, which has been judged as one of the first schools in the country to achieve 'Outstanding' under BREEAM guidelines for sustainability.

The original brief requirements were met, which included space and light, with access to outdoor learning as an important feature. The finished building has exceeded our expectations both aesthetically and in practical terms. It supports the delivery of a creative and innovative curriculum for the pupils, who fully appreciate their new school.

In addition, the community facilities have made a positive impact both in terms of local community use and, in a more formal way, conference facilities that support professional training. We are very fort unate that the Redbox team was selected to design the school building at Esh Winning."

# education

#### Inclusive design

Places people at heart of design process:

At Brandon and Esh Winning the main school buildings are set back from the public footpath to create a semi-public arrival space for pedestrians. Safe and attractive landscaped routes lead people to the front of the schools. Landscaping has been specified to retain clear sight lines of the building from the street for security and access.

The main car park at both schools has been located to one side of the school to keep vehicles out of sight. A high security fence separates the car park and the arrival space in front of the building from the school grounds. A lower timber fence runs along the site boundary to provide a more attractive and welcoming site boundary at the front of the school.

Locked gates each side of the school buildings allow managed access into the north and south yards. All doors into the school have electronic access control for security.

#### Car parking:

The car parks provide bays for school staff with additional spaces for school visitors. At Brandon there are a number of spaces allocated for the Sure Start Centre and at Esh Winning there are spaces for visitors to the community library and training facilities.

At both sites external levels are designed to provide appropriate gradients to avoid the need for steps when approaching the building.

The accessible parking bays have been located close to the building entrances.

Pedestrian & pupil access:

From the public footpath all routes to the building are designed to acceptable gradients to avoid steps and ramps.

The massing of the new school buildings are designed to make the main entrances highly visible and clear from the street. At both schools the main entrance sits alongside the larger volume of the main hall. The main entrance and hall have a similar architectural treatment with copper pyramid roof features to create a prominent main entrance.

The secondary entrance into community facilities is designed as a lower key entrance.

There are cycle stands to encourage pupils to cycle to school and there is secure cycle storage provided for staff.

Children enter the school grounds via the gates into the north and south yards. The classroom wing of the school extends back into the grounds with pairs of classrooms arranged around shared breakout spaces and internal courtyards. Each pair of classrooms shares an entrance porch which provides level access into classrooms.

### education

#### Acknowledges diversity and differences:

The learning spaces have been designed to support modern methods of teaching to cater for all students requirements. The layout has moved away from the traditional format of all teaching taking place within the four walls of a classroom and the new school has a range of flexible spaces to support learning. From within each classroom lessons can spill outside under the cover of timber canopies to support outdoor group work. Internally lessons can spill out into the corridor / breakout spaces and aroup rooms. These spaces can be shared between two of four classes and support one to one teaching, group work and promote mixed ability and mixed age group learning. Internal courtyards provide secure outdoor learning and play spaces and provide further opportunities for growing plants and vegetables.

The schools include training rooms for community use. These rooms are available for use by mother and toddler groups, other local groups and for teacher and parent training / meetings. To support all user and future users' needs internally the buildings include:

- Accessible WC's.
- Baby Change units.
- Hygiene room with accessible WC, shower and provision for a hoist. The hygiene rooms are located close to the nursery classes and the rooms double up as medical rooms with secure storage for use by visiting nurses and health visitors.
- The schools have a dedicated SEN group room which can accommodate up to eight pupils. The group rooms and break out spaces are also available for one to one teaching.

An acoustic consultant was involved from the early design stages and the schools are designed to meet the acoustic standards of BB93. All learning spaces have Class A acoustic wall boards to ensure speech is clear and audible. The main entrance and reception spaces have hearing loops and the schools each have three portable hearing loops.

Roof lights and windows are designed to provide excellent levels of natural day light into the classrooms and orientated to ensure no direct lights falls across white boards to ensure they remain clearly visible on sunny days without needing to close blinds.

### education

Inclusivity and accessibility for all:

The single storey school buildings are designed to provide level access throughout the community and school facilities.

Designed to accommodate changing needs:

The building is designed to allow future changes. The classroom wing has a very flexible layout to support a range of learning methods and the steel frame structure was adopted to allow community areas to change with time. i.e. partition walls can be moved to create different spaces for community use if demand changes.

The site layouts allow the car parks to shrink in the future if demand reduces and fence lines can be moved to increase the school playing fields and grounds.

Provides an enjoyable experience:

The buildings are designed to be appropriate for the users. Benching, WC's and sinks vary in height for the range of ages of pupils with door handles lower in the children's areas, at standard heights in the community spaces and higher in the nursery for security.

Acoustics in the schools are designed to BB93 standards with all colours and finishes selected to provide a calm environment to promote learning and for ease of movement and access. i.e. appropriate colour contrasts between walls and floors, doors and signage etc.

Undertaken appropriate consultation:

A broad range of meetings and consultations took place during the feasibility and design stages of the project involving staff, pupils, head teachers, school governors, local user groups, the local authority, library officers and the local community.





# contact

#### UK HEADQUARTERS

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