



Grange School street frontage at dusk: Maccreanor Lavington Architects.
Photo by Tim Crocker

Southwark school design guidelines

September 2018

Southwark school design guidelines

Context and vision

As an inner city borough, Southwark is home to a diverse community with a broad spectrum of needs. The provision of high quality education to provide the 'best start in life' is fundamental to improving the opportunities for its citizens and a key driver in social equality and community regeneration.

To encourage families to choose to live, work and learn in Southwark, schools must be of the highest quality, adding value to the communities they serve. To help tackle poverty and crime, school buildings must be welcoming, safe and, above all, inspire learning. To attract and retain the most talented teachers, good quality teaching and workplaces that are fit for purpose are essential.

Southwark Council believes that good design and the internal and external environment are vital to support the high quality of teaching and learning in the schools in the borough. This document therefore sets out the standards that it expects to see in all builds including remodelling, extensions to existing schools and new build schools.

It is recognised that there is an ongoing need to learn and retrain throughout a lifetime. Designs should respond to the varying requirements of each key stage and the diverse Southwark community. We should provide access to inspiring indoor and outdoor learning opportunities and in secondary schools offer specialist facilities which lead to aspirations and pathways to further education, training and employment.

ICT will always be an important factor in driving delivery of the Southwark vision for education. Learning will extend beyond the school day and school building, supported by state of the art technology.

The current primary and secondary school expansion programme has taken place in the context of the wider sustainability agenda. The new and remodelled buildings will be more energy efficient and better maintained, minimising life cycle costs. Buildings will be designed on principles of sustainability and constructed from renewable materials, where appropriate. The schools built and refurbished today must leave a strong legacy of good and adaptable design for Southwark's future generations.

Who is this guidance for?

This set of good practice design principles for Southwark schools is designed to be read in conjunction with all relevant guidance from the Education and Skills Funding Agency (ESFA) and London Borough of Southwark, including, but not limited to the DfES Output Specification, Building Bulletin 103 (Area Guidelines for Mainstream School¹) and Building Bulletin 104 (Area Guidelines for SEND and alternative provision²). The council is also expected to meet ESFA efficiency targets and these will be shared with designers for each development. It reflects national and local experience of designing and building schools and, in particular, to inform the consideration of school sites which may be located in close proximity to forthcoming residential developments in Southwark, including the Old Kent Road and Canada Water.

These design principles are targeted at both new schools and schools to be expanded. In Southwark we have some excellent examples of high quality school buildings. Many of these are exemplary and can be used as case studies.

This document is expected to be referenced by architects, developers and other consultants as well as informing the client including the council, the ESFA and individual schools. It will also assist with planning applications and will be referenced by the planning case officers and taken into account.

The School Design Guidelines will be provided as a guide for applicants as part of the pre-application process and used as a material consideration in decision making by planning committee.

Compliance with area standards

Some sites fully conform to the requirements of Building Bulletins (BB103 and BB104) in respect of both internal areas and external areas. More usually it is the internal areas which are met and the external ones which are compromised on urban sites. The degree to which the

¹

www.gov.uk/government/uploads/system/uploads/attachment_data/file/324056/BB103_Area_Guidelines_for_Mainstream_Schools_CORRECT_ED_25_06_14.pdf

²

www.gov.uk/government/uploads/system/uploads/attachment_data/file/485223/BB104.pdf

council will accept proposals that fall short of area guidelines will be dependent on the quality of design, as measured against these council design guidelines. The council encourages creative solutions such as raised play decks that will achieve this outcome but will rarely compromise on reductions in internal areas.

The importance of setting an education vision and a clearly defined brief

All Southwark school projects have been and will continue to be developed with a clear written education vision that has been developed in partnership with headteachers, staff, pupils, parents, governors and the community, as appropriate.

This is key to the success of any school and community project and the council will wish to see all architects and developers involved in the process of defining a clear brief to secure an environment which brings positive benefits to teaching and learning.

The vision is an important part of the briefing process which sets out, in educational terms, the outcomes that the client is seeking to achieve. The vision should reflect the schools' priorities and views on how best to respond to the needs of the locality. This will then allow professionals to interpret those outcomes within the site and building area and set budget constraints. There should be no differential in the quality of the new school accommodation across the borough, but each development will be influenced by the specific site context and planning constraints.

Effective briefing is often about making important choices about priorities for internal and external areas. It is not always possible or affordable to achieve all aspirations of the education vision and the briefing process works out which areas are most important within the available area to achieve those outcomes.

Identity in the community

A school is a civic building. Its siting and orientation should allow it to have architectural presence and make a positive contribution to the adjacent public realm. Schools can provide a catalyst for future development and be core to the community.

The council's preference will always be for stand alone school buildings if at all possible. Pupils attending schools will often be living in dense residential areas and the school can provide valuable sanctuary and support, including access to green and habitat areas. Where this is not possible, the council has set some guidelines to obtain maximum benefit from high density and mixed use sites.



*Bellenden School: Clear identity as a community beacon
Cottrell & Vermeulen Architecture
Photo by Anthony Coleman*

There are a number of schools in Southwark which provide a valuable social and community resource with the Headteacher and staff providing extra support to vulnerable families. This can include drop-in support, after school clubs, the provision of meals, social welfare and mental health. Schools play a valuable role in dealing with inequalities in our communities and supporting families.

Understanding the school's role in the community is an important part of the briefing process. This will influence designs that will enable some parts of a school to be used outside of normal school hours. The site should permit straightforward zoning of areas in terms of security and power consumption, which means schools could be made more publicly accessible and give the building both a civic function and a civic presence.



*Charles Dickens School. Entrance, link between old and new buildings and roof deck play area Maccleanor
Lavington,
Photo by Tim Crocker*

Genuine and thorough engagement with the school community of stakeholders in decisions at design stage is essential.

Schools should be designed in line with requirements of Secured by Design and with the input of Architectural Liaison Officers from the Metropolitan Police where appropriate to the scale of the project.

Respecting the context

The wider context of each school is important. A school building should sit well in its urban context and community, respecting, and be respected by the scale of its neighbours, and also respond to what is specific about the location.

Across the Southwark schools portfolio, many of the schools are Victorian Board School buildings, a number of which are listed. This presents a number of challenges including compliance with space standards but designers should still work towards these space requirements, with derogations to be discussed where appropriate.

Safeguarding considerations for children, and privacy considerations for residents and school users alike, should ensure that any adjacent residential development is designed where feasible, so that its principal habitable rooms are not directly in sightlines to the school. Residential development should not 'overwhelm' a school nor create constant overshadowing of a school site.

Involvement of all relevant stakeholders, pupils, teachers, parents and local people must also be included in the process. A new or refurbished school can be used to significantly enhance the quality and character of the local area, making it a place that is more attractive to residents, businesses and investors. The school building can be used to communicate the ethos of the community, thus boosting civic pride and enhancing civic image. The Supplementary Planning Guidance 'Design' recommends the production of Design Statements at various stages in the design process to demonstrate how urban design principles have been incorporated. Extensions and refurbishments to an existing school can be used to lift the quality of the existing buildings, thus enhancing the overall quality of the school.

Siting and pollution concerns

Schools should be designed to mitigate against air quality issues. Entrances should be sited away from main roads, and other sources of air and noise pollution, to protect children and young people from high levels of air pollution when they are outside. (According to GLA data, approximately 50% of Southwark's secondary schools and 60% of Southwark's primary schools were located on sites that exceeded EU NO2 limits in 2013). Buildings can be used to form a boundary against pollution issues.

The siting of schools within a footprint should also take account of compatible uses as set out in this document.

Subject to site constraints, the use of elevated play areas has been demonstrated as a potential solution address concerns about pollution, lifting the play areas away from where pollution settles and potentially achieving benefits in terms of the access to external areas from classrooms. This should be considered as one type of outdoor space, to complement others, as described in this document.

Entrance and Legibility

The site should allow legibility of a school's physical and architectural organisation taking account of the surrounding built environment, safety and accessibility including public transport, walking and cycling routes.

It should allow for a clear and good sized pupil entrance or (entrances) that can cope, for example, with more than 1500 pupils arriving/leaving at once (in the case of a secondary school) and provide a sense of welcome and arrival to all. The entrance strategy should include consideration of lunchtime changeover for nursery without impacting on safeguarding. The strategy should be established early – i.e. do children/students go straight in to the building or do they congregate outside first this will dictate space requirements and influence planning.



*Ivydale School heart space showing clear legibility:
Hawkins\Brown Architects
Photo by Jack Hobhouse*

Whilst any car use should be absolutely minimised and will be referenced in the School Travel plan, careful consideration should be given to any potential conflicts with the drop off and collections of children in primary schools and these points should be sited away from the main entrance if possible, considering neighbours and road safety.

Special schools have specific requirements for vehicles. Requirements for these schools must be considered early in the design stage and may include mini bus parking and wheelchair access.

Mixed use and high density sites

Proposals for mixed use and shared use sites are becoming more common, particularly where development opportunities are scarce or sites are in different ownerships. It is possible that such sites will have a range of activities including for example:

- Different schools sharing a site
- Shared use with compatible uses such as libraries, sports and leisure and further education and pre school education
- Residential use, where compatibility is satisfactorily evidenced
- Commercial and office developments, which may be compatible with older pupils.

Each brings a range of technical, design and operational challenges depending on when users are likely to be occupying the site, and their requirements for access and servicing, which are likely to be very different.

Where, by exception, new schools within mixed use schemes are put forward, consideration of the acceptability of such proposals will include, inter alia, the following criteria:

- The design for the school must always have a clear sense of identity.
- School buildings on high density sites should be designed carefully so as to take account of challenges and demonstrate where compensatory design solutions are being proposed; e.g. a larger multi use hall where there is reduced external area, elevated play decks and podium development
- Opportunities should be taken to achieve the best compatibility within a site footprint between uses, e.g. primary schools and residential accommodation for the elderly, or office accommodation and educational facilities for secondary students, especially for KS4 and sixth form, and the provision of sports and leisure and open space, which can be used by both the school and the community
- The use of space and light should be maximised in the design for the school with creative solutions to achieve movement between internal and external areas. Teaching environments are successful when there is good access to external areas, and light and air are maximised to provide a high quality environment
- Safeguarding is crucial and practical design solutions can be adopted to mitigate direct sightlines and any perceived overlooking concerns. Careful consideration should be given to the elevations and the positioning of windows as they affect sightlines and

providing buffers between education and residential accommodation, with set back of residential development, as appropriate to the site

- External areas can provide a 'sanctuary' for children living in dense inner city areas, providing access to important habitat areas and areas for growing and exploring the natural environment. The council will expect to see this in all developments
- Avoidance of designs which place a school in a position where it is overshadowed or dominated by taller buildings, potentially compromising light and air for the educational environment
- A clear servicing strategy to avoid creating conflicts but with practical and pragmatic solutions to the management of deliveries.
- Maintenance of internal and external areas should be considered to ensure that responsibilities can be clearly defined within a lease and Development Agreement and arrangements for governance understood by the users
- Entrances and cores for stairways and lifts should be clearly separated to avoid conflicts, as they will be designed to meet very different requirements
- Access and transport should be clearly defined and careful thought should be given to the safe journey to and from school and, in the case of primary and early years, provision, pick up and drop off. This should include awareness of the direction that most pupils will arrive from
- Phasing should be considered at the inception of a mixed-use school project with the intention being that the school should not be exposed to ongoing construction activity, risks and disruption
- School insurers should be involved early on, in case there are unusual requirements that need to be incorporated in the design because of the mixed use
- The school entrance should be sited away from any major residential entrances or major traffic junctions, providing a safe environment for young people to travel to schools by cycle, walking or public transport.

Environmental conditions internally

People in any building will benefit from fresh air, control of unwanted noise and a healthy environment. A stuffy atmosphere, draughts or distracting noises could affect concentration, making it harder to teach and learn. Complex building management systems have been shown to be problematic with users as training often fails to take place. Building services installations and BMS should, therefore, work well and be simple to use. Siting schools away from main roads could help to ensure that

a building doesn't have to be fully sealed and mechanically ventilated - which can increase both capital costs and running costs but in some schools this may be necessary. The council has now developed some practical and best practice design solutions for the classroom environment.

Each teaching room should have an openable window to allow for users to access fresh air as required.

Acoustic design for schools is a demanding Building Regulations requirement and should be adopted. Derogations against acoustic requirements will not be accepted as these restrict access to education for all learners, not only for those with hearing loss.

Post occupancy evaluation has shown the considerable benefits of acoustic treatment to ensure that classrooms work well for teaching and for pupil attention during lessons. This helps create a feeling of calm, which supports good learning and teaching.



*Ivydale School showing typical classroom
Hawkins\Brown Architects
Photo by Jack Hobhouse*

Allowing for Expansion

The assumption should be built into a site selection that expansion may be needed at some future point and this should be taken into account if feasible. It is easy to assume that the size of a new school is optimal and unlikely to grow; in reality good schools will grow and demand can increase very quickly, so a site should consider opportunities for new buildings and expansion over time.

In selecting sites, complex and disruptive phasing should be avoided. Phasing the construction of new schools is often inevitable but can be time consuming, disruptive to education and costly.

Phasing

For works on existing school sites, a clear phasing strategy is essential. The cost of temporary accommodation to support phased construction plans should be weighted against alternative approaches. In some case smaller packages of work may be feasible over school holidays.

Internal spaces

It should be recognised that older school buildings will not naturally fit current area guidelines and may have inherent inefficiencies. Notwithstanding this, the briefing process should involve a thorough inventory of existing spaces and a review of whether these are being used efficiently or still relevant to the current curriculum approach. It may be possible to address some reorganizational issues through simple reallocation of spaces without the need to undertake building work.



*Keyworth School breakout area
Hawkins\Brown Architects
Photo by Jack Hobhouse*

The internal teaching and learning environment should include the following:

- Creating flexibility by suiting spaces to allow change of designation to reflect curriculum developments, and enabling work with different sized groups
- Effective adjacencies
- Suiting large spaces to give maximum flexibility
- Effective storage strategies
- Light and air and a feeling of space, including opportunities for height and volume
- Good social and informal learning including a calm dining experience with external link
- Good connection between inside and outside for curriculum and social activities

- Circulation which is part of the learning journey with daylight and offering a clear sense of orientation to the building.
- Display to celebrate high quality work, and to provide identity and a sense of community
- Well placed staff offices for passive supervision
- Provision of well designed staff areas with room for resources and planning preparation and assessment (PPA) for lessons.
- Fully integrated ICT solution
- Passive supervision to be ensured so that there are no unsupervised areas throughout the whole school
- Safeguarding considerations should always be paramount in design considerations
- Accessible so pupils with any disability can benefit fully from the facilities and learning opportunities and be fully compliant or exceed Part M of the Building regulations
- Aim to improve the physical environment for disabled pupils, maximising their opportunity to participate in the curriculum

Outdoor Space

It is essential for the well-being and development of children/young people of all ages to spend time outside. Providing quality external space is as important as providing the right internal curriculum area. Phasing can further affect what is available in the short term, but it can make a school unviable in the long term if sufficient outdoor space is not factored in from the outset.

Children in early years foundation stage (EYFS) must have freeflow access between internal and external learning spaces. This means that there must be direct access from all EYFS internal learning spaces onto external and design consideration must be made of providing adequate shelter and of maintaining appropriate temperatures in the internal spaces.

Urban school playgrounds often provide the only safe,



*Albion School rooftop playground
Haverstock Associates
Photo by Hufton+Crow*

supervised place where children can play outdoors. Playgrounds should be considered priorities when allocating and planning sites and should be fully accessible taking account of the needs of pupils with any form of disability including children diagnosed on the autistic spectrum. The choice of site or location of a



*Albion School informal learning: Haverstock Associates
Photo by Hufton+Crow*

school must not dictate the quality of outdoor space.

Access should be provided to habitat areas and areas for growing to encourage understanding of the environment.

Rooftop multi-use games areas (MUGAs) are valuable and should be considered alongside opportunities for outdoor teaching including roof terraces/balconies to provide direct access from teaching areas. Building Bulletins require areas for outdoor social interaction and gathering, as well as timetabled sports.

In terms of space, play area should be based on BB99 (for confined sites).

Above all it should be remembered that the ability of pupils, especially in primary schools, to move freely between internal teaching areas and the outdoors should be maximised in design so there is a feeling of light and air. Research has clearly shown that freedom of movement in schools aids teaching and learning.

Expansion on existing sites should seek to mitigate loss of outdoor play space and to increase it wherever possible, for example through a use of roof decks or by rationalising existing outdoor areas.

Daylight and views

Classroom windows need to be large enough to satisfy regulatory daylight requirements, while views out are also important, so proximity to residential development should not preclude this. Therefore it would not be desirable to select a site on the presumption that school windows can

be translucent if they face residential properties. Good light and air to all spaces, and a feeling of occasional height and volume, to some teaching spaces can assist with the quality and feel of the environment, and provide a stimulating variety of experience.

Car parking and service access

Car parking should be reduced to the absolute minimum in consultation with the school. PTAL ratings vary from site to site and the issue of staff recruitment and retention should be considered. Adequate room must be provided for refuse storage/collection and deliveries which must enter and exit the site in a forward gear. This servicing requirement should be balanced against the need to provide usable outdoor amenity space for children/students and priorities will need to be agreed on a project-specific basis. Emergency vehicles and secure bike storage must be safely remote from pedestrian arrival points.

Daily servicing (food deliveries to the kitchen in particular) should ideally take place directly from the public highway. Access should not conflict with any pedestrian arrival points.

There should be well designed opportunities for secure cycle parking and storage.

Sustainability

Schools must be energy efficient, minimise pollution, maximise natural site characteristics for energy generation and conserve resources where possible.

Environmental impact must also be minimised during the design and construction phases. As designs evolve and change they must be evaluated to ensure that the 'green baton' is not dropped during the course of the project. New build schools must aim for an 'excellent' BREEAM rating and refurbished schools a 'very good' rating.

The construction process must ensure that it does not consume a disproportionate amount of resources and that opportunities are taken to educate school users about sustainable processes. Activities could include site visits and working with teaching staff to incorporate sustainable design issues into lessons at appropriate points in the construction process.

Future uses must be taken into account and spaces designed accordingly. The longer-term view should consider change of use beyond the duration of a 25-30 year maintenance period. A sustainable development is one that can be easily adapted for evolving or changing uses.

Schools should be designed for robustness and be capable of being easily maintained. External materials which weather well and are inherently robust will reduce maintenance costs in the long term and provide a lasting

legacy. Internal materials should also be considered for their inherent strengths, rather than relying on applied protective finishes, which can provide an institutional feel and add maintenance requirements. This can help both to add character to internal spaces and reduce material waste in construction and reduce demand on schools maintenance budget.

Procurement

The strategy for procurement is key to achieving good outcomes, especially with regards to attaining the best value in design and construction. Each scheme should be developed with a procurement strategy that is specific to the scheme that takes account of best practice, market intelligence and lessons learned.

This requires a well written and researched educational brief, the appointment of a design team with a good mix of expertise, experience and innovation and ensuring that previous design and post occupancy feedback lessons have been applied.

The method of procurement will be driven by a variety of factors, including cost, programme and the current market conditions. It is important to remember that there is no 'one size fits all' model and a procurement route which best suits the project's requirements should be considered at an early stage. The selection of designers and contractors should be suited to the scale of the project, well balanced between cost and quality. It should be possible to evidence good value for money, with genuine open competition. Many school schemes will be part funded by the council and the ESFA and this process will need to be evidenced.

Attention should be given to developing an appropriate cost and quality evaluation methodology which contains project specific criteria supported by the necessary ensure that the brief and the evaluation criteria are clear from the outset with the necessary feasibility studies, and master planning and full surveys, to ensure that risk can be costed and realistically apportioned.

All surveys, designs and construction contracts should be warranted in favour of third parties, including academies.