Area Guidelines for Schools in Wales - Building Guidance

Area Guidelines for Schools in Wales
Sustainable Communities for Learning

Audience
This guidance is aimed at local authorities, further education institutions, and diocesan authorities.

Overview
The guidance will assist those developing school designs for the Sustainable Communities for Learning Programme, for consideration by the Education Directorate.

Action required
The guidance should be used when designing school buildings for capital and revenue funding from the Sustainable Communities for Learning Programme.

Further information
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Additional copies
This document can be accessed from the Welsh Government's website at gov.wales/sustainable-communities-for-learning-programme.

Mae'r ddogfen yma hefyd ar gael yn Gymraeg.
This document is also available in Welsh.

Cymunedau **Dysgu** Cynaliadwy
Sustainable Communities for Learning

Contents

Introduction

The Sustainable Communities for Learning (SCfL) Programme funds both new build and major refurbishment of school buildings. Where new schools or extensions are proposed the Programme guidance and benchmarks used to evaluate the business cases were aligned to the Building Bulletin suite of standards.

The first wave of investment of the Programme was under the banner of '21st Century Schools and Education' and represented a £1.6 billion investment over the five-year period ending in 2019. This supported the rebuild and refurbishment of more than 170 schools. The second wave of investment began in April 2019. It was expanded to include further education institutions and renamed the '21st Century Schools and Colleges Programme'.

In January 2022 the Programme was renamed 'Sustainable Communities for Learning' to make a clear statement about our commitment towards the environment, community cohesion, and our future generations. This Programme will see a further £2.3 billion investment in school and college infrastructure utilising both public capital and revenue and will now be managed on a rolling basis (SCfL Rolling Programme).

Through a co-construct approach, the programme is delivered at the pace and to the priority of the delivery partners. This co-construct approach has extended to the guidance and lessons learnt through stakeholder workshops as to the suitability of the Building Bulletin suite of guides in a Welsh context; changes to the Welsh curriculum, mandating Net Zero Carbon (NZC) and adoption of Universal Primary Free School Meals (UPFSM) for example.

The document supersedes Building Bulletin 98, 99 and 104: Area Guidelines for Schools, published in 2014-2015 by Department for Education (formerly the Department for Education and Skills), and any associated revisions.

The key purpose of this document is to set out simple, realistic, non-statutory area guidelines for all new school buildings and grounds in Wales.

Funding from the SCfL Programme will allow all new buildings to be built to these standards. Simple graphs and formulae can be used to check that the number, size and type of rooms in both new designs and existing buildings are at least that recommended for five categories of usable space. These have been calculated to address the requirements, of pupils with additional learning needs (ALN) and disabilities, the school workforce and community use out of school hours. Similar standards are set for various categories of site area. Crucially, a further 'float' is also recommended to accommodate the individual priorities of each school: whether facilities for the specialism or limited 'extended school' provision.

All mainstream and Special schools are expected to need at least the total net area recommended, which includes the 'float'. Some schools may then have further supplementary area over and above this, for instance for specially resourced Alternative Learning Provision (ALP). However, getting the area right is only part of creating facilities which support the educational aims and vision of each school. Design quality and appropriate specifications are also crucial.

This document supports the completion of a Schedule of Accommodation (SoA) tool needed as part of the submission for strategic funding from the SCfL Programme which can be accessed separately.

Aim of the document

The key purpose of this document is to set out simple, realistic, non-statutory area guidelines for new school buildings and grounds in Wales.

This sees the development of a standalone guidance for Wales moving away from the withdrawn Department for Education (DfE) Building Bulletins (BB) 98 and 99 which have been used to size schools since 2010 based on their recommended minimum internal and external areas. The document takes forward appropriate sizing requirements from those documents but importantly, has worked to include additional flexibility and area to deliver the Welsh curriculum alongside other Welsh Government policies and commitments.

Following a period of consultation, the document is aligned with the Welsh educational provision to define simple, non-statutory area guidelines for Welsh school buildings and sites for all age ranges from 3 to 19 moving forwards.

This document aims to assist delivery partners, architects, local authority leads, and those involved in creating the business case and design brief for new school buildings, or for school refurbishment and/or conversion projects. Given the need for stakeholder engagement to best develop the brief, it may guide and be relevant to head teachers, technical leads and others who will input and advise on the needs of their schools and the amount of space required to deliver the Curriculum for Wales and meet current and future teaching and learning activities.

However, in line with policies which seek to increase choice and opportunity in state funded education, these guidelines will not necessarily have to be met in every case and should always be applied flexibly in light of the particular circumstances.

This document utilises the already existing information and value of the BBs but also looks to include for the above and update accordingly.

Size guidance has been slightly adjusted to allow for certain provision of additional required areas or spaces to improve flexibility to meet specific local and project needs (as identified in the briefs).

Educational change remains the driving force behind the Programme. Welsh Government recognises the benefits and importance of bringing schools and their communities together, providing the best spaces possible to meet the needs of the school and the local community/ stakeholders.

Within the BBs, the DfE provide prescriptive approach to School Sizing, within Wales, we have a more co-construct approach with this document supports the building sizing and the development of a SOA and the overarching business cases to the SCfL.

This document retains some of the philosophy from previously utilised BBs specifically around the careful development of a brief and the design criteria but importantly sizing for the school buildings and site are delivered in two parts:

- Part 1 sets out building area recommendations for both overall categories of space and individual types of spaces allowing for the size adjustments based on the Welsh policy review and best practice alignment. This includes graphs and formulae to show the recommended area ranges of these spaces;

- Part 2 sets out the types and categories of external areas and includes site area recommendations for the various categories of outdoor spaces needed within the playing field area and net site area. As in part 1, graphs allow users to determine the sizes of external areas.

This guidance can be used to estimate the area needed for new schools delivering the Welsh curriculum and meeting the wider policy requirements, as well as any potential extra building area that may be needed for schools providing additional services or local facilities. When considering how existing buildings will be used, it is important to recognise that the proportion of net to gross area will vary depending on the design, and to identify any 'supplementary area' needed for non-school or support functions.

This document supports the completion of the SoA which will be included as part of the submission for funding from the SCfL Programme. The SoA will need to identify the spaces required in the school, including their size and type. The SoA will need to include rationale for any areas that are greater than those presented within this guidance to allow a decision to be made on the level of funding provided and to clearly outline the additional space requirements.

The completion of an SOA will be an additional requirement to the business case process. This allows the SCfL to collate data for future analysis to enable amendments to the guidance and monitoring to show space requirement trends.

How it can be used?

This document will primarily be used to provide the sizing criteria for schools but will also provide guidance as to ensuring that the correct brief is set aligning with local needs and future educational requirements.

- Correct brief
- Community engagement/consultation
- Appropriate sizing
- Future adaptability/future proofing
- Supports funding applications

This document:

- Refers to regulations and Building Bulletins e.g. BB93 Acoustics, BB101 Ventilation, BB100 Fire, building standards requirements and other guidance used by the SCfL These documents and requirements need to be delivered as part of the design.
- Tells you about some other regulatory bodies, relevant legislation and good practice that you should know about if you are designing, altering or extending existing premises
- Signposts to good practice documents which provides helpful advice
- We recognise that many of these regulations and guidance documents will be updated, and that there may be further recommendations which arise based on developing future trends

With this in mind, we will continue to review and maintain this guidance document.

Summary

One of the key requirements for developing this standalone guidance document was to consider how wider Welsh policy and the Curriculum for Wales might influence and shape school size and layouts.

In developing the guidance, consideration was given to the requirements of the following key national policies:

- **Curriculum for Wales**

- **Universal Primary Free School Meals**

- **Additional Learning Needs and Education Tribunal (Wales) Act (ALNET)**

- **Net Zero Carbon**

- **Childcare Offer for Wales**

- **Cymraeg 2050**

- **Community Focused Schools**

- **The Well-being of Future Generations (Wales) Act (WBGA)**

How does the guidance respond to the new Welsh policy?

Wales has a number of key national policies that can be considered alongside education regulations and design guidance.

Curriculum for Wales framework

Improving education is the Curriculum for Wales's national mission. Nothing is so essential as universal access to, and acquisition of, the experiences, knowledge and skills that our young people need for employment, lifelong learning and active citizenship.

The Curriculum for Wales guidance is a clear statement of what is important in delivering a broad and balanced education. The four purposes are the shared vision and aspiration for every child and young person. In fulfilling these, we set high expectations for all, promote individual and national well-being, tackle ignorance and misinformation, and encourage critical and civic engagement.

A defining feature of the Framework is that it requires schools to design their own curriculum and assessment arrangements. By itself, it is not an 'off the shelf' programme for delivery.

The Curriculum for Wales framework provides guidance to schools in developing their own curricula, supporting their pupils towards the 'four purposes'. The four purposes are to develop:

• Ambitious, capable learners
• Enterprising, creative contributors
• Ethical, informed citizens
• Healthy, confident individuals

How does this policy impact school sizes?

The Curriculum for Wales supports considerations that generate links between different disciplines and areas of schools. This lends itself to developing learning areas in such a way that allows for flexibility in function, which will need to be considered when allocating space.

The curriculum must also consider additional learning needs and facilitate Welsh language immersion in early years. This is supported by the Cymraeg 2050.

The curriculum shows a change in approach to teaching which disengages it from the previous Building Bulletin guidance which was developed by the DfE.

The use and development of technology has changed how spaces are used and the size of classrooms for certain teachings have reduced.

Universal Primary Free School Meals

Primary school children in Wales will be provided with free school meals. This incentive supports the ambitions of the government to tackle child poverty and ensure no child goes hungry in school.

How does this policy impact school sizes?

With the introduction of Universal Primary Free School Meals, it is anticipated that the need for an expansion in kitchen facilities will be essential to meet increased demand.

Additional Learning Needs (ALN) Provision (including resource bases)

ALN provision in Wales supports children and young people aged 0 to 25 who have ALN, to overcome barriers to learning and achieve their full potential. All children and young people with ALN, regardless of severity, will generally be entitled to an individual development plan (IDP) which will set out additional learning provision (ALP) for that individual.

How does this policy impact school sizes?

This falls under the Additional Learning Needs and Education Tribunal Act 2018 which replaces the current Special Educational Needs framework. The implications of this Act are that additional provisions for ALN may need be made, in terms of dedicated space, to facilitate the requirements of the Act. This could be in the form of a number of types of spaces such as quiet spaces or spaces for energetic activity.

Climate Emergency - Net Zero Carbon

The Welsh Government has declared Wales to be in state of Climate Emergency. As a result, it has set our ambition to achieve a carbon neutral society by 2050, coordinating action to move institutions away from the use of fossil fuels.

All new schools and colleges in Wales to be NZC. Buildings are required to be NZC in operation, which means producing zero or negative carbon emissions as part of their operational energy and meet embodied carbon targets. This will support the Welsh Government's aspiration for a carbon net zero public sector in Wales by 2030.

How does this policy impact school sizes?

This has been mandated into the school's programme to help the Welsh Government achieve its commitment to becoming a NZC nation by 2050. This will have implications on how the school is powered and what systems the school utilises for heating, cooling and hot water.

Provisions for Low and Zero Carbon (LZC) systems may require an adjustment in required building services area to compensate for the differing systems and as a result, adjusted areas might be required to support the specified system(s).

The design team should be considering the benefits of centralised or decentralised systems which will also have impact on plant and service space requirements.

Childcare and Early Years Capital Programme

The key objective of the Programme is to support both Flying Start and the Childcare Offer and aims to improve and grow new and existing childcare provisions with particular emphasis

on strengthening Welsh medium provisions.

The budget (subject to availability) is split into two distinct funding streams: small grants funding and major capital funding and is available for Care Inspectorate Wales (CIW) registered childcare and play providers.

Welsh Government officials assess major capital projects based on an eligibility criterion for funding support. Bids are considered based on the outcomes that would be delivered as a result of investment, i.e. improved provision, increased capacity, co-location of services.

Whilst recognising the importance of highlighting and supporting policy drivers; business cases to the Capital Grant for Childcare and Early Years are weighted against the following criteria:

• Welsh Medium Provision
• Co-location where a scheme directly supports Welsh Government's co-location of services agenda.
• Expansion of Childcare Offer, Flying Start or Foundation Phase Nurseries in a childcare setting.
• Expansion of places.

How does this policy impact school sizes?

As Welsh schools will be adopting a community focused mindset, provision for childcare facilities may be considered as part of the overall school space. This would influence the types of spaces available as there may be a need to include a nursery in the school to accommodate childcare.

In line with capturing community benefits, is should be considered if there are more implications or opportunities for multiple uses of space e.g. halls and external spaces.

Cymraeg 2050

In 2017, Cymraeg 2050 set out the Welsh Government's ambition to achieve one million Welsh speakers by 2050. Three strategic themes have been identified to achieve this target:

1 **Increasing the number of Welsh speakers**

2 **Increasing the use of Welsh**

3 **Creating favourable conditions – infrastructure and context**

The Programme for Government commits the Government to introducing a Welsh Language Education Bill during the course of the sixth Senedd.

The proposals for a Bill are being introduced in the wider context of 'Cymraeg 2050'. The ambition to reach a million Welsh speakers require transformational changes to the way we think about the Welsh language and the role of education within that context.

The Bill will take steps to enable all pupils in Wales to become independent and confident Welsh speakers through the statutory education system. To achieve this policy ambition, the Bill will make changes to the way in which education in Wales is planned in order to increase the amount of Welsh language provision delivered. The concept of describing Welsh language proficiency levels (along a single continuum) and of continuous improvement to transform outcomes will be central to the Bill.

How does this policy impact school sizes?

The Bill will make changes to the way in which education in Wales is planned in order to increase the amount of Welsh language provision delivered, these changes will be a national, local authority and school level. This would be supported by immersion centres which could be located outside of the primary education setting however, in certain areas of the country, it could be beneficial to embed these within schools e.g. 1-2 classrooms.

Community Focused Schools

The Welsh Government wants all schools in Wales to be Community Focused Schools:

- Building a strong partnership with families
- Responding to the needs of their community
- Collaborating effectively with other services

How does this policy impact school sizes?

Under this scheme, the community is considered a key stakeholder in the development of a school. How the community engage with the school and how the school might have a role in its community.

Provison of shared space requirements can be influenced by the needs of the local community.

Considerations may include additional space for community storage, community accessible washrooms and space for lockers.

How a community uses school space will vary between different communities and all available space should be assessed for its applicability to community use during the design stage as shared facilities and improved facilities can offer increased revenue for schools but need to ensure consideration for site security and child protection (depending on the level of specified community facilities).

Some baseline considerations for community use have been noted but are not exhaustive and the briefs should provide clear guidance on the project requirements.

The Well-being of Future Generations (Wales) Act

The Well-being of Future Generations (Wales) Act (WFGA) 2015 establishes the need for public bodies to think more consciously about social, economic, and environmental sustainability throughout their developments to improve the general well-being of Wales. The act puts in place 7 well-being goals:

1 **A prosperous Wales**

2 **A resilient Wales**

3 **A healthier Wales**

4 **A more equal Wales**

5 **A Wales of cohesive communities**

6 **A Wales of vibrant culture and thriving Welsh language**

7 **A globally responsible Wales**

How does this policy impact school sizes?

The Well-being of Future Generations (Wales) Act 2015 (WFGA) Act will heavily inform the considerations for the school vison and design in ways that achieve the criteria established in each of the seven wellbeing goals. It has also informed the Curriculum for Wales which translates these goals into what the purpose of a curriculum should be.

A key consideration that has been derived from the WFGA is to create community focused schools for higher flexibility and efficient use of available space. This works towards creating cohesive communities and provides opportunity to enhance people's physical and mental health.

Brief Guidance

In developing this guidance document for school sizing, consultation noted that the process for creating a brief and design criteria with the previously utilised Building Bulletins were useful and beneficial to a number of stakeholders.
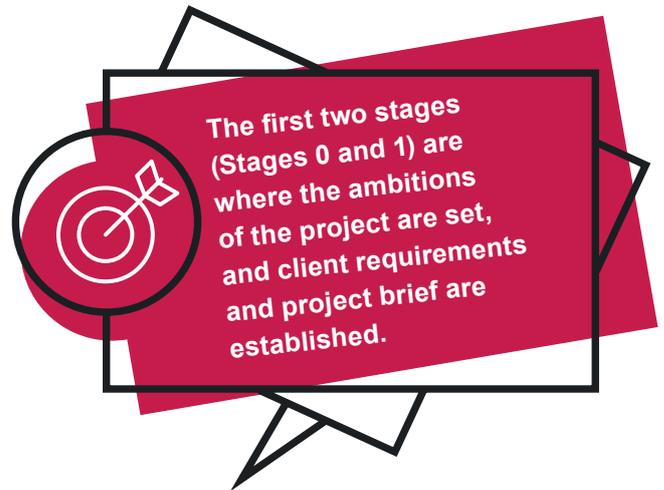
The RIBA plan of works provides an updated approach to the development of the brief during the earliest stages of a project and will support teams to deliver the vision for the schools.

The document still considers that key design criteria that should be considered for inclusion in the brief to ensure that facilities are appropriate and adaptable to deliver the Curriculum for Wales and meet current national and local requirements as well the development of future legislation.

RIBA Plan of Work

The Royal Institute of British Architects (RIBA) is a global professional membership body specialising in architectural excellence.

They have developed guidance, known as the RIBA Plan of Work, that supports developers in briefing, designing, constructing and operating buildings. The RIBA Plan of Work lays out eight distinct Stages in the development of building projects. This covers the lifetime of a project, from strategic definition to the building's use, and is designed in such a way that lessons learnt in the latter Stages of a building's development, feed into the early Stages of new developments.

The first two stages (Stages 0 and 1) are where the ambitions of the project are set, and client requirements and project brief are established.

0 At Stage 0 'Strategic Definition', a business case is developed that incorporates the options that best deliver the aspirations of the client/stakeholders.

1 This feeds into Stage 1 'Preparation and Briefing', where the project brief is prepared, outlining outcomes for sustainability, spatial requirements, project budget and execution plan.

Insight from Project Stakeholders is a fundamental aspect of developing the strategic definition and project brief as using lessons learned from experience can help to improve design quality and improve overall building performance.

Ensuring the project strategy is well defined and achieves the client requirements, is an essential part of developing a strong business case. As described above, this feeds into the project brief at Stage 1 of the RIBA Plan of Works where feasibility studies are carried out that are used to demonstrate if spatial requirements can be met.

Strategic Business Case

The initial strategic definition and brief for any project will need to be written by the client team. It can then be developed with the wider design team as building professionals traditionally become involved at Concept Design (RIBA Stage 2). Project stakeholder input is an essential part of developing a strategic definition and stakeholders should form part of the client team developing the business case. Once a business case has been developed, the project brief can begin to take shape that outlines the aspirations of the project. The Client Team is not responsible for undertaking design work.

Depending on the size and type of project, the client team will include:

- those responsible for the provision of pupil places and the school estate, usually the Local Authority (LA) or diocese;
- the fund holder(s), who needs to be sure that the brief is achievable within the budget and allows for future changes (for instance in staff and organisation) and for community use;
- senior school staff e.g. head teacher, and governors, who will need to ensure the design is suitable for the individual needs of the school;
- other stakeholders e.g. community groups who may wish to use the facilities or those that could provide further funding by integrating a multi-agency provision on the school site, such as health or social services.

0

Stage 0 Strategic Definition:

Stage 0 is where the best means of achieving the client's requirements is determined. At this stage, the business case and client requirements are defined by the client team and may require management consulting expertise, whole life analysis, sustainability guidance, financial modelling or design thinking. Project risks and budget are considered for a range of options and site surveys can be carried out to determine the best means to deliver the client requirements. High level spatial requirements are stated against each option to support estimations of project costs.

1

Stage 1 Project Brief:

Stage 1 will commence if, at Stage 0, the best means of achieving the client requirements are agreed upon. The client requirements are then considered in more depth to support the development of the project brief which accounts for guidance on project outcomes, sustainability outcomes and quality aspirations. At this stage, feasibility studies may be required to demonstrate that the special requirements can be accommodated for at the proposed site, which if feasible, should be tested against the project budget.

The users of the project, including pupils, should also be represented or engaged when formulating the brief.

The best approach to brief writing is to define as clearly as possible the desired outcomes for the project, rather than attempting to specify design solutions to achieve the outcome. This will ensure the best value from the inventive design capability of the design team and contractor.

The brief should consider future needs will be based on:

- the projected capacity (number of pupil places), in the context of the LA strategies and policies;
- the recommended building and site area, both net and gross, for the required age range and capacity, based on the formulae in Parts 1 and 2;
- a curriculum analysis based on the individual needs of the school's planned curriculum.
- Intended community use (this is a key consideration for the sizing guidance).

Depending on the possible projected growth or change in the capacity requirements of the school, the data above can also highlight the overall timescale required.

Development of initial Schedule of Accommodation (SoA)

Based on the guidance, the project team should develop the SoA identifying the baseline provision for the type and size of school to be delivered along with any additional areas for ALN, community or specialist uses e.g. 210 Primary School with 30 FTE Nursery or 900 Secondary School with no Sixth Form.

The SOA should provide a breakdown of the areas being provided based on the minimum area guidance and then a clear narrative to how the project is allocating the available float to deliver the project brief including how the approach to the area allocated to partitions and circulation will impact the overall building size.

Proposed changes to net area

The table identifies the proposed change in net size from the previous BBs based on the review of current Welsh policies.

	Minimum Net Size	Maximum net Size	Float
Primary	Increase	Increase	No change
Secondary	Decrease	No change	Increase

Table
Proposed Changes to Net Area

Examples of implications of proposed changes and adjusting net area

The table identify that the uplift in net area for Welsh Primary schools would see a increased funded areas on the basis that the school's provide the recommended uplift to specific areas and provision of additional spaces.

School	Size (pupils)	Area	BB Min	BB Max	Recommendation	Comment (key differences)
School A	420	2,257	2,200	2,251	2,289	Plant room smaller in school than in recommendation by ~30m^2
School B	210 + 30 FTE Nursery	1,549	1,427	1,442	1,480	School has an additional: • 89m^2 partition • 73m^2 circulation Greater circulation and partition could be accounted for by Nursery
School C	480 + 60 FTE Nursery	2,844	2,785	2,791	2,886	Additional circulation = 74m^2 Additional partition = 12m^2
School D	240 + 30 FTE Nursery	1,549	1,611	1,577	1,673	Smaller than recommend circulation provided = 33m^2 Larger partition area = 12m^2 Smaller plant room than recommend ~ 40m^2
School E	310 + 45 FTE Nursery	2,062	1,927	1,960	1,997	Greater circulation = 67m^2 Greater partition = 47m^2

Table 1
Primary: Examples of Changes

Examples of implications of proposed changes and adjusting net area

The tables identify that the adjustment in net area for Welsh Secondary schools would see an reduction in core area on the basis that more flexibility is provided within the guidance to deliver the Curriculum for Wales.

School	Size (pupils)	Area	BB Min	BB Max	Recommendation	Comment (key differences)
School A	1500 + 250 6th Form	15,662	14,519	14,610	14,381	School have an 8-court sports hall rather than 4-court in BB example
School B	1175 + 177 6th Form	11,138	11,664	11,792	11,520	Total gross internal floor area (inc.ASC) = 11,936m^2
School C	1240	11,417	11,104	11,136	10,952	Assumed an additional 2,476m^2 to school area as SoA does not include circulation, plant or partitions. School has a specialist ALN cluster = 799m^2 Kitchen is ~40m^2 larger than recommendation. Main hall is larger than recommendation.
School D	1200 + 250 6th Form	13,108	12,487	12,565	12,330	N/A

Table 2
Secondary: Examples of Changes

Design Principles

It remains important to identify and consider the range of key design principles that need to be reflected within the brief to ensure that projects deliver quality and appropriate facilities to meet the current and future needs of the schools and pupils.

The following should be key considerations crucial to the successful design of any school project:

Adaptability and flexibility

Access and inclusion

Safety and security

Sustainability and environmental design

Environmental performance

e.g. acoustics, ventilation and daylighting

Vision for the School

In line with meeting the requirements of the WBFG Act and the Ways of Working to show that they are acting in accordance with the sustainable development principle, any masterplan should ensure that the planned environment suits the identity, ethos and culture of the school.

Among other overarching aspirations, the brief should communicate to the design team that the buildings should inspire and enhance:

- Educational performance: opportunities to raise standards for all by offering an appropriate, adaptable and stimulating learning environment;
- Staff satisfaction: vital for the recruitment and retention of the school's most important resource, it is influenced by the various aspects of the working environment as well as appropriate space for staff to rest and socialise;
- Pupil satisfaction: affecting behaviour and self-esteem, and ultimately willingness and ability to learn;
- Community involvement: an important way to extend the integration of the school and maximise effective access to facilities.
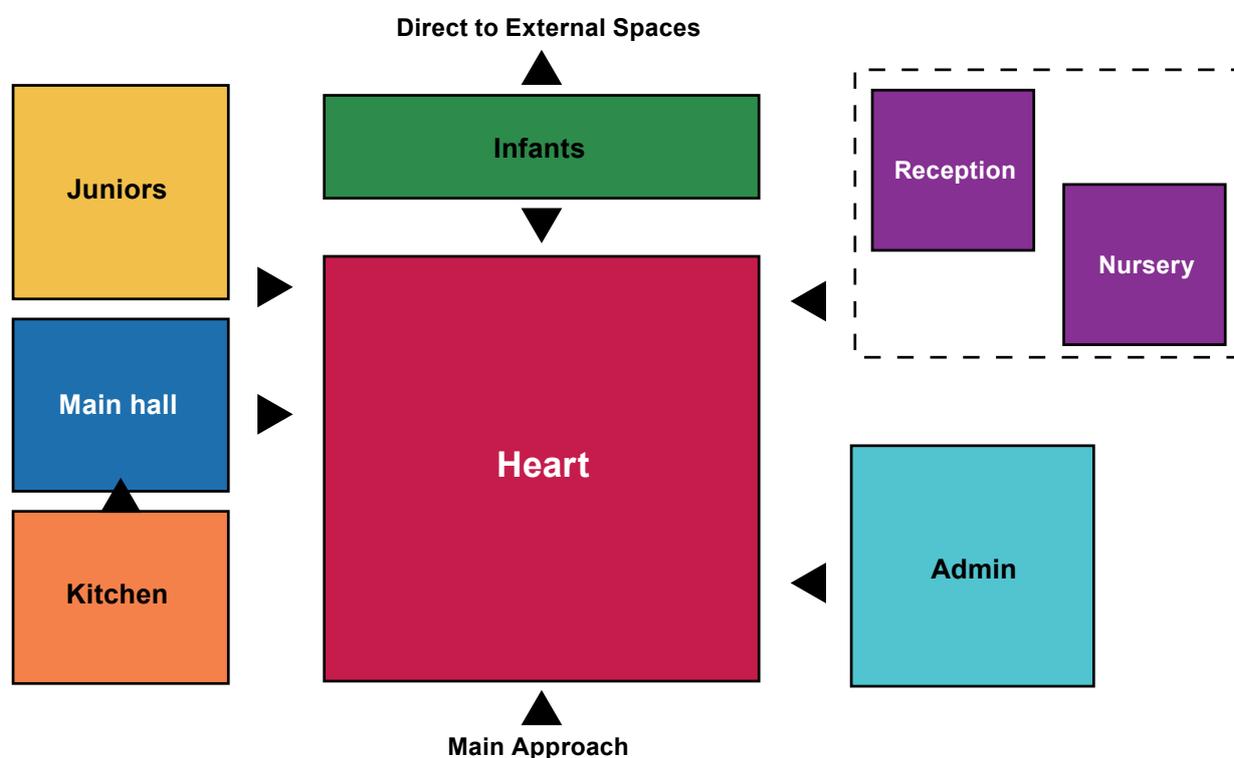
Area Guidelines for Schools in Wales

Figure 1

Extended School Facilities and Shared Community Use

The Welsh Government has set out to promote and develop community focused schools.

The level, frequency and likely timing of community use should be assessed early in the briefing process, in conjunction with the Local Authority's strategy for sports and leisure amenities.

Any mainstream school can provide extended school activities and services, outside the school day, to help meet the needs of its pupils, their families and the wider community. Some types of schools maybe more suitable to provide more extensive provision for non-school use during the school day.

The delivery of extended school facilities will generally fall into one of three levels of provision:

- access to school facilities by the wider local community beyond the school day should be available in any school, addressed through the design and management of the building and the provision listed above;

- flexible multi-use areas for use by others within the school during the school day, such as a parent/community room or ALN facilities that may also be used for community health care, may be accommodated within the 'float' area or some 'supplementary area' funded by the LA;

- major areas for dedicated non-educational services would require supplementary areas (see page 49) funded through the joining up of other funding streams, such as Flying Start programme or Childcare.

The location of any facilities that will be used by the community should be carefully considered, taking into account access, security, safeguarding and the level of parking required.

Shared spaces are likely to include the main hall or performance space and its ancillary facilities, and sports facilities, both indoor and outdoor. Links with adult learning provision and other local schools may also lead to shared use of some specialist learning spaces such as Information and Communications Technology (ICT) suites or art and drama facilities. The design should allow these parts of the school to be open and heated while others are closed and secure.

Facilities which will encourage community use outside the school day, and are allowed for within the recommended gross area, include:

- alternative 'reception' facilities and access for out-of-hours use;
- sports hall, activity studio and changing facilities suitable for public use;
- accessible toilets and lockers for use by adult visitors;
- a community office and storage spaces separate from those used by the school;
- environmental learning areas available to be managed in partnership with specialist groups and the local community.

Linked Provision

Some facilities may be accessed nearby, such as a swimming pool or specialist vocational resources. The brief should identify the implications of any such linked provision.

Welsh medium schools have traditionally located near an english medium school with existing specialist provisions or resource.

Curriculum Opportunities

A defining feature of the Framework is that it requires schools to design their own curriculum and assessment arrangements. By itself, it is not an 'off the shelf' programme for delivery.

The Framework does not prescribe a full list of specific topics or activities. That is not to say that the specific topics or activities are unimportant. Instead, the Curriculum for Wales guidance sets out the essence of learning which should underpin them.

It is for schools and practitioners, drawing on guidance and resources, to decide what specific experiences, knowledge and skills will support their specific learners to realise the four purposes. This is set within the consistency provided by the national framework.

The brief should highlight the need for designers and the school to take advantage of this opportunity, and the sizing guidance has been adapted to reflect the need for more flexibility to determine the optimum provision of space and areas.

Key Design Requirements

The following issues should be identified as essential in the brief for any project.

Flexibility and Adaptability

The Welsh Government is committed to developing learning environments that are community focused, providing access outside of traditional school hours. This underpins the need to design schools with flexible spaces that can accommodate a multitude of functions and provide spaces that can be utilised by staff, pupils, and the community. The design of learning spaces should be cognisant of different group sizes, learning types, use of technology and learning types to enhance the adaptability of learning spaces.

The flexibility to allow for change must be a key design requirement. Whatever layout or approach is preferred, it must be adaptable to allow for future changes, for instance for different class structure or teaching arrangements to be adopted.

Flexibility is needed to allow for day-to-day change of use, such as accommodating different teaching arrangements in a classroom through movable furniture and portable ICT rather than prescribing specific fixed spaces.

Adaptability is needed to allow for long-term changes such as developments in the 14 to 19 curriculum or the implications of evolving ICT. Staff and pupils should be able to work agilely across the school and the site wide Wi-Fi access and facilitation of personal portable device use in all working spaces should be considered as good practice.

Avoiding fixed furniture as much as possible and limiting the range allows flexibility. Furniture can also provide flexibility by performing a number of functions, although this must be offset with the need for simple products which are not difficult to repair or replace.

It is important to be clear what needs to be adaptable (for instance internal walls being able to be removed and rebuilt without affecting the structure or major services) and what should be flexible for more frequent change. For instance, sliding/folding doors can often be underused and ineffective, but may be useful to allow rooms to change size to match unpredictable group sizes, such as sixth form, or to allow for an examination space.

Consultation recommendations

- Design spaces that allow for future adaptation.
- Standardise and increase classroom sizes.
- Consideration made to changing approaches to free school meals.
- Standardised grids
- Help facilitate changes in the needs of the schools in the future

Access and Inclusion

Access and inclusion must be allowed for in the design, reflecting the Welsh Government's commitment to promoting inclusion of pupils with ALN and disabilities into mainstream schools. This means that such pupils should be able to have access to the whole curriculum and participate in school life. Particular attention should be given to:

- appropriate space for pupil support, whether educational (for instance through small group rooms), therapeutic, social or medical;
- an easily understood layout and suitable use of colour and good signage;
- good quality acoustics and lighting (and perhaps a higher specification in specialist areas);
- access designed for all to information, the curriculum and the physical environment (for instance including both a ramp and steps where there is a small change of level).

The guidance includes an increase to the minimum sizes for teaching spaces and support spaces that allow for pupils with ALN and disabilities and assistants. The range of facilities allowed for within the recommended gross area to ensure an inclusive school, also include:

- ALN resource base;
- multi-purpose small group rooms for specialist teaching and pupil support;
- office space, medical and therapy rooms for peripatetic staff and health professionals;
- meeting rooms for parents and carers;
- storage space for educational and mobility equipment;
- accessible toilets and hygiene facilities for assisted use;
- suitably wide corridors

In some schools, very high numbers or increased needs of pupils with ALN and disabilities will require additional specialist ALN resourced provision. Alternatively, there may be a co-located special school for pupils with complex needs, which will also have implications for the mainstream school.

Consultation recommendations

- Enhance ALN provision with support spaces based on an expected increase in number of pupils with ALN.
- Specialist resource base that is aimed at supporting pupils with autism or emotional health and wellbeing needs.
- Inclusive approach to personal spaces providing adequate privacy.
- All spaces accessed by pupils to be considered learning spaces.
- 'Cluster' design for cross-curricular working. Complementary-subject learning hubs. Cross curricular learning implies that learners are given opportunities to:
  - develop listening, reading, speaking and writing skills
  - be able to use numbers and solve problems in real-life situations
  - be confident users of a range of technologies to help them function and communicate effectively and make sense of the world
- All potential user groups should be in mind when designing learning spaces.

Safety and Security

Safety and security are overarching issues, which should be considered in conjunction with requirements for greater community access. Security is as much about creating a feeling of a secure, organised, safe environment, as it is about the specifics of surveillance and supervision of access. Particular attention needs to be given to:

- access control, for instance to ensure visitors can be shown to an interview room from reception, but cannot enter the school without permission;
- securing the building 'envelope': walls and roofs, but particularly windows and doors;
- having clearly defined site boundaries, using appropriate fencing and/or planting;
- electronic measures, such as intruder alarms;
- a health and safety audit of the design to ensure it is appropriate for adults and pupils with special needs or disabilities.

Recommendation

Project teams should engage with the local Designing Out Crime Officers (DOCO) in RIBA Stage 2 to understand the local security context and work to ensure that recommendations are incorporated into the design (where suitable).

Environmental Performance

The Welsh Government will require new schools to achieve BREEAM Excellent, deliver Net Zero Carbon in Operation and meet Embodied Carbon targets as a funding requirement.

To ensure a reasonable level of sustainability, BREEAM considers a wide range of factors, including security, community use and site improvement considerations, alongside better-known environmental issues such as energy efficiency, minimising waste and identifying opportunities for reducing environmental impacts.

The brief should specify sustainable and environmental design such that a BREEAM rating of Excellent or better is achieved.

This guidance applies to refurbs and extensions where there is currently no formal requirement to achieve a BREEAM Excellent rating. The choice will have cost implications, both in the short and long term, so the rating set in the brief should be considered carefully by the project team.

Environmental performance criteria are also crucial, particularly for acoustics, heating, ventilation and daylight. Many of these are now statutory and are vital to ensure comfortable, suitable teaching space. Acoustic and energy calculations should be provided for all designs aligning to the sustainability and overall operational performance requirements.

Policy requirements linked to NZC, Sustainable Urban Drainage Systems (SUDS) and Biodiversity Net Benefit (BNB) should support the achievement of a BREEAM Excellent rating but project teams will need to consider the costs associated with individual locations and the impact on site requirements.

Part 1 - Building Area Guidance

This part sets out how to establish the floor area requirements for space within schools in Wales. In line with the previous sizing guidance, the document will still consider:

Net area

which is the usable area and comprises basic teaching area; halls, dining and PE spaces; learning resource areas; staff and administration; and storage;

Non-Net area

which supports the functioning of the building, and includes toilets and personal care, kitchen facilities, circulation, plant and internal walls;

Supplementary area

(including net and non-net), which is used for non-school or support functions such as specially resourced special needs facilities.

Net Area
- Classrooms
- ICT
- Specialist / Practical Teaching Space
- ALN Spaces
- Halls, dining and PE / Performance Space
- Learning Resources Areas (includes libraries)
- Admin and staff
- Storage

Non-net Area
- Toilets and changing spaces
- Kitchen areas
- Circulation, plant and equipment and internal walls
- Other including Laundry

Supplementary Area
- Specific ALN requirements
- Community support requirements

Key Changes

In developing the simple, realistic, non-statutory area guidelines for all school buildings and grounds in Wales, the following key changes over the previous BBs have been included for based on the policy review and stakeholder consultation.

These changes are proposed to support the national policy and ensure that schools are able to successfully deliver against the Curriculum for Wales and policy requirements.

The tables below outline area sizing change over the respective BBs for Primary and Secondary Schools areas as well as the rationale for this adjustment.

Primary: Key Changes

Area (Room)	Overall Change	Policy/recommendation
Non-net area (Kitchen facilities)	Increase	Universal free school meals. Lowering threshold means a higher proportion of pupils will be eligible for free school meals
Learning resource (Library resources)	Increase	Adjust use to accommodate ALN
Building services	Increase	Supporting the Net Zero policy

Table 3
Primary: Key Changes

Secondary: Key Changes

Area (Room)	Overall Change	Policy/recommendation
Basic teaching area (Science laboratories)	Decrease	Reduce number of dedicated Science labs to 1 per ~230 pupils, allowing for greater number of general teaching areas with flexible function
Basic teaching area (Design and Technology)	Decrease	Range supplied in BB98 not utilised to full extent. Reduction provides additional flexibility
Learning resource (Library resource)	Decrease	Maximum area not required – Reduction in books requirement due to increase in access to ICT. Adjust the use to accommodate ALN
Learning resource (ALN Base)	Increase	Higher number of students presenting with ALN meaning greater provision is required to accommodate
Building services	Increase	Supporting the Net Zero policy
Float	Increase	Flexibility

Table 4
Secondary: Key Changes

Note: *while the above indicates that the overall area would result in a decrease in non-net area, the overall result will be a neutral area provision balanced by increases to the float to allow additional flexibility.*

Gross Area of Buildings

The gross internal area is measured to the internal face of external walls in all parts of all buildings on the school site(s) that are intended to be secure and weather tight.

Area recommendations for buildings are separated into two categories:

- Net area, or usable area, which can be accurately calculated from the formulae in appendix 1 and figures identifying net and gross area; plus any agreed supplementary net area; and
- Non-net area, such as circulation, which will be more variable depending on the design, the configuration of existing buildings and site constraints, but will generally increase in proportion to the net area.

The total of these categories gives the gross area of the buildings.

The gross area required will depend on the design and layout of buildings. Generally, the gross area of new buildings may vary between 140% and 145% of the net area (such that the net is 69% to 71.5% of the gross), depending on the layout and type of site.

- In existing buildings, this may rise to as much as 150%.
- In new buildings, the gross area will need to be at least 140% of the net area unless compromises are made in the provision of circulation space.

The total net area required by a community school should not normally need to exceed the recommended net area for the number of pupil places and age range of the school.

Further supplementary net area, and a proportional increase in non-net area, may be needed if there are specially resourced non-school or support functions on the school site (see Supplementary Areas section).

Decisions about any facilities to be provided within supplementary net area will vary widely due to specific local needs and should be considered when utilising additional funding streams.

Net Area of Buildings

The net area includes all spaces in the gross area of buildings, except toilets, washrooms and showers (and lobbies to them, including changing rooms), building services areas such as equipment rooms, circulation space, school kitchens and the area taken up by internal walls.

The net area for the schools are made up of rooms within the five categories of space listed below, plus any supplementary net areas for non-school or support functions, as discussed above.

Net and Gross area

Figures 2 and 3 display the recommended net and gross areas for primary and secondary schools respectively. It is worth noting that the area scale for the combined net and gross area graphs is larger than the net area graphs alone shown in figures 4 and 5.

Additional sixth for net and gross areas

Figures 6 and 7 depict the additional area required to accommodate sixth form in secondary schools. The area calculated is to be in addition to that determined for secondary schools.

Figure 2: Primary Net and Gross areas

Gross area range
Maximum 1.45 x Net area
Minimum 1.4 x Net area

Max = 254 + 3.2N
Net area
Min = 236 + 3N
Difference = Float = 18 + 0.17N

Max = 30 + 2.2N
Basic teaching area
Min = 0 + 2.1N

Number of pupil places (N)
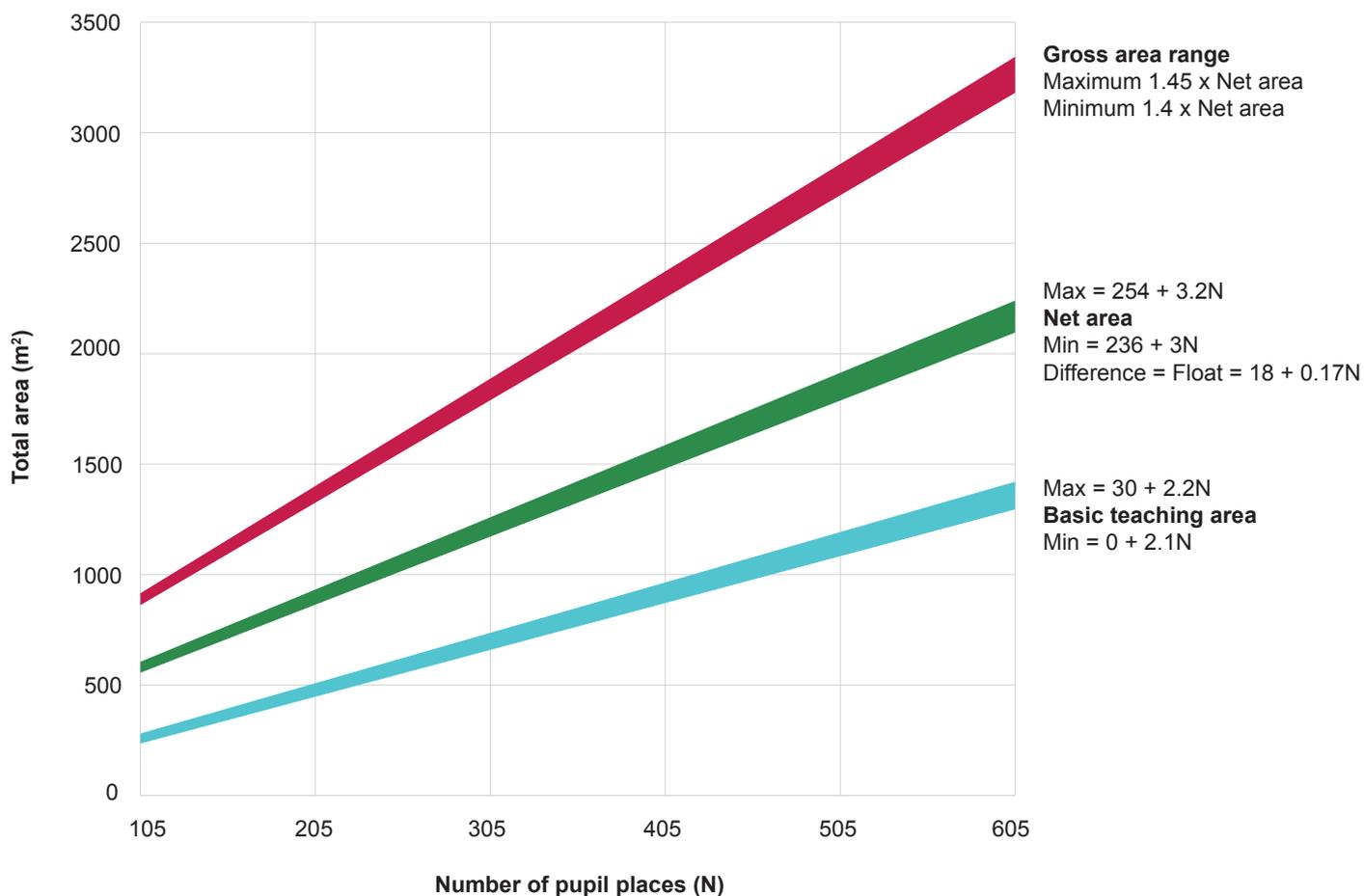
Figure 3: Secondary Net and Gross areas

Gross area range
Maximum 1.45 x Net area
Minimum 1.4 x Net area

Max = 1300 + 47N
Net area
Min = 1030 + 4.31N
Difference = Float = 270 + 0.39N

Max = 142.5 + 3.14N
Basic teaching area
Min = 50 + 3N

Number of pupil places (N)
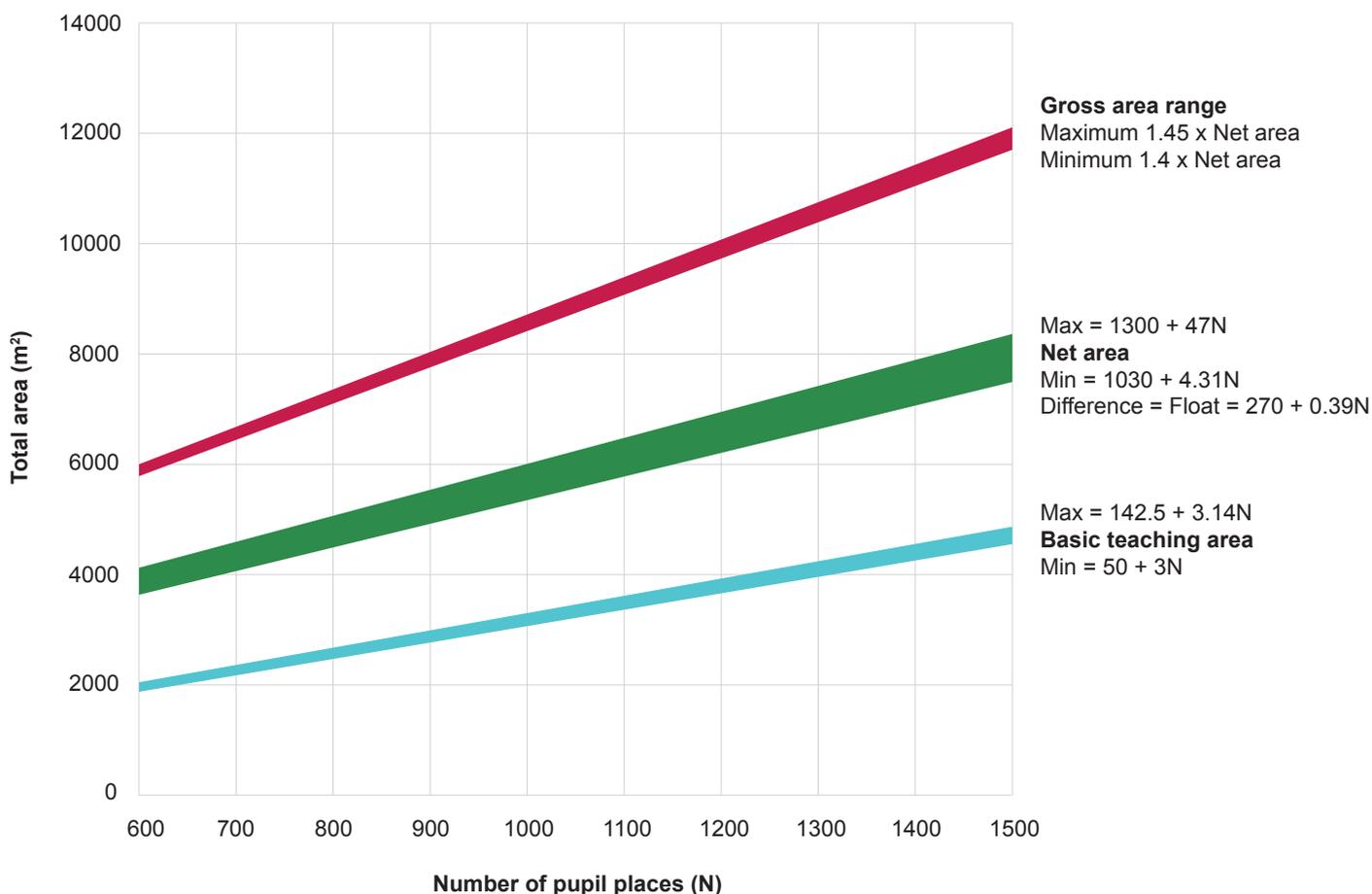
Figure 4: Primary Net areas

Max = 115 + 0.35N
Halls & studios
Min = 100 + 0.3N

60 + 0.3N
Storage
45 + 0.25N

Staff administration
30 + 0.2N

Learning resource
Max = 35 + 0.23N
Min = 15 + 0.15N
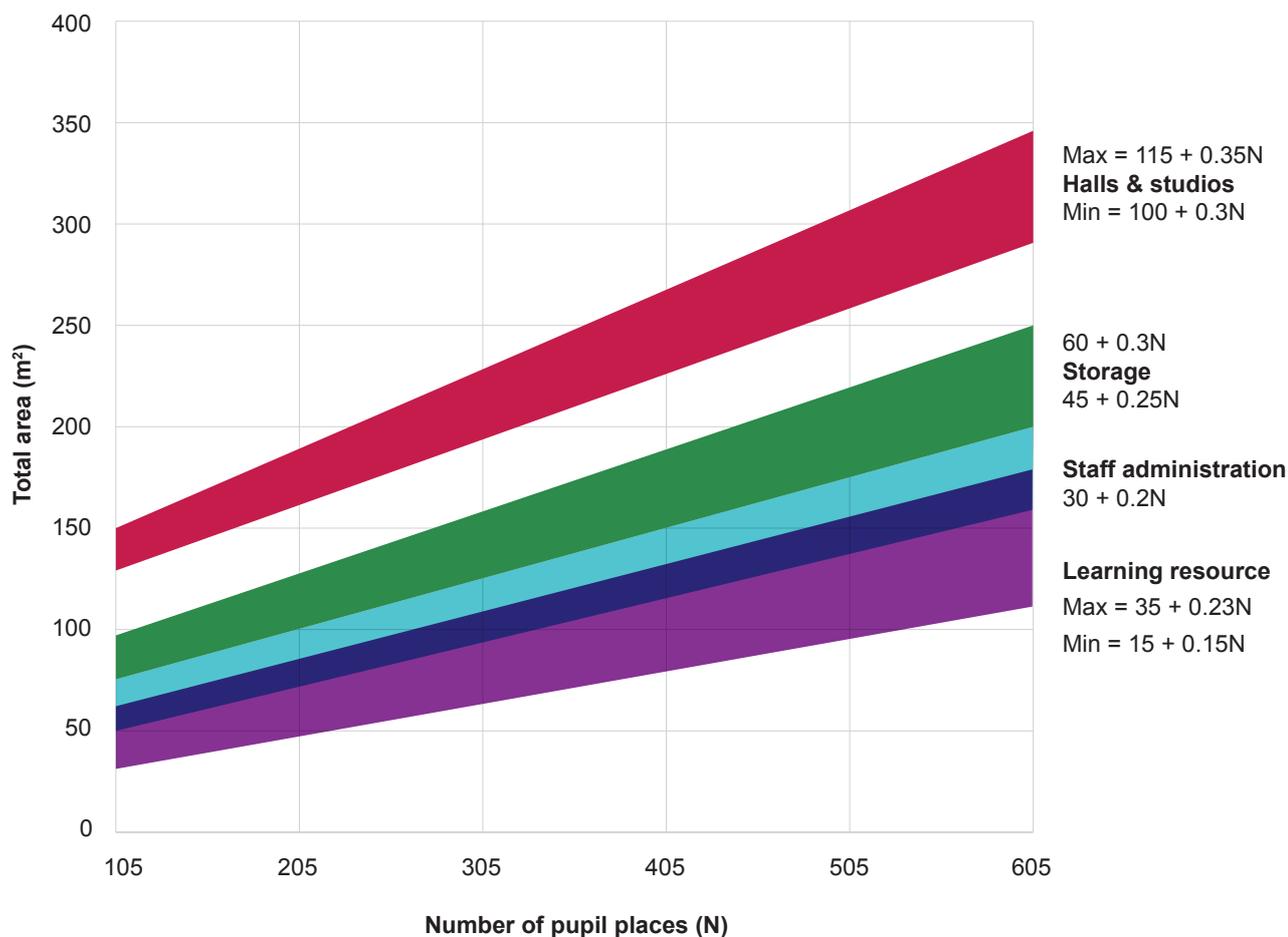
Figure 5: Secondary Net areas

Max = 750 + 0.35N
Halls
Min = 600 + 0.3N

225 + 0.4N
Storage
175 + 0.35
Staff administration
125 + 0.3N
135 + 0.28N
Learning resource
75 + 0.25N
Dining and social
25 + 0.2N
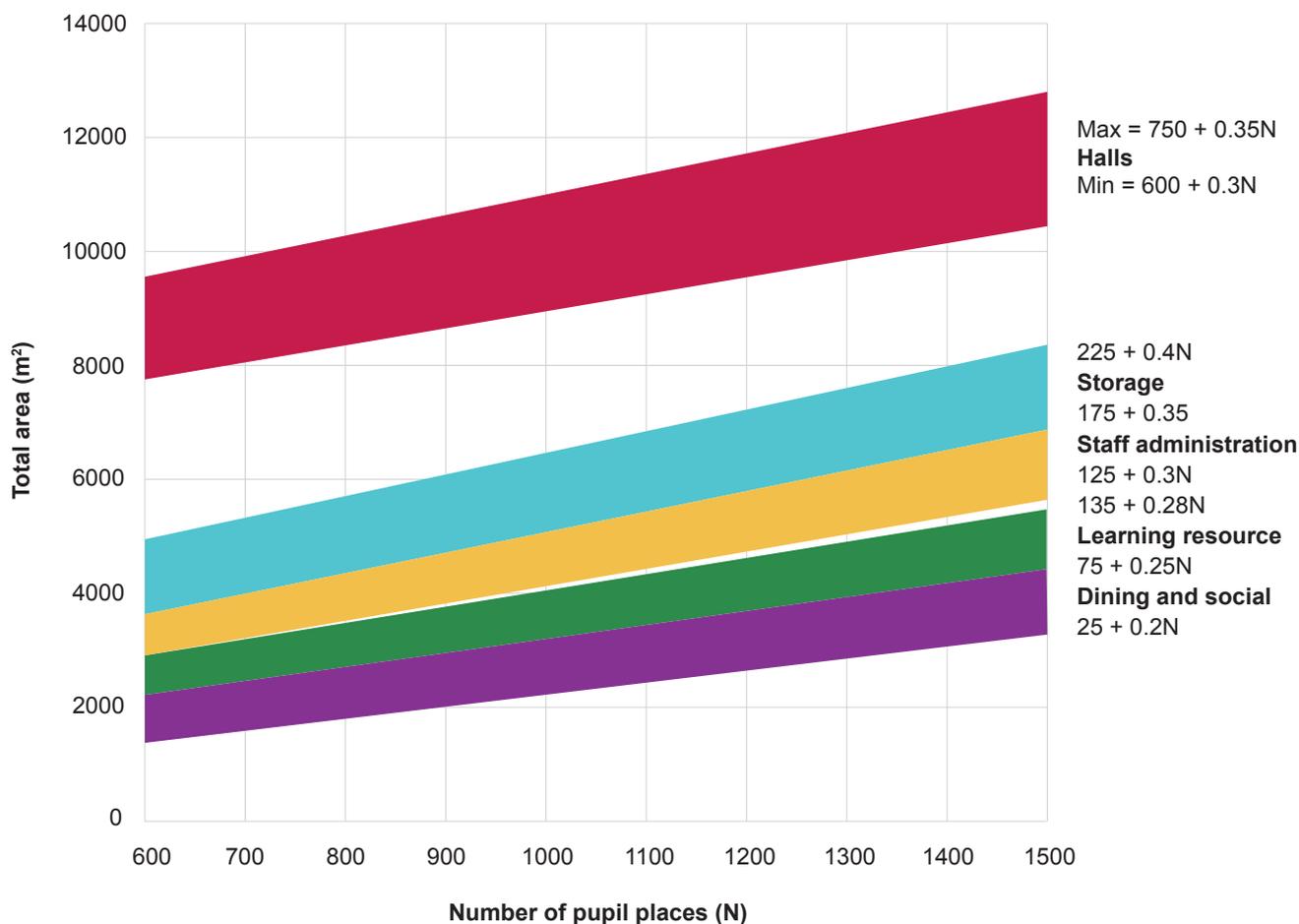
Figure 6: Additional sixth form Net and Gross areas

Likely additional gross area
Maximum 1.45 x **additional net area**

Minimum 1.4 x **additional net area**

Likely additional gross area
300 + 5.7N

Max = 250 + 3.6N
Likely additional basic teaching area
Min = 150 + 3.3N

Total area (m²)

Number of sixth form places (N)
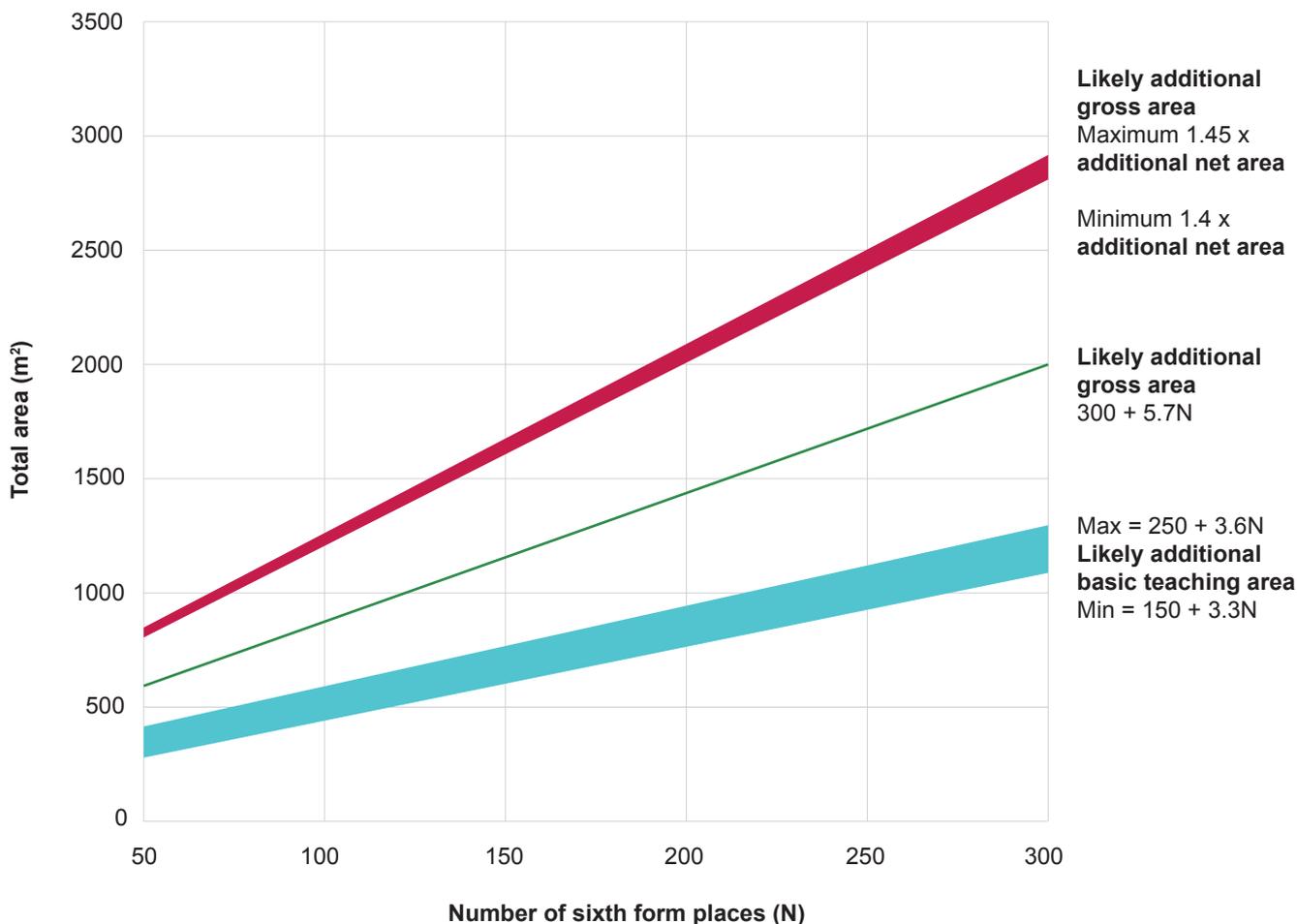
Figure 7: Additional sixth form Net areas

100 + 0.55N
Dining and social
75 = 0.5N

Learning resource
50 +0.45N

Storage
25 + 0.4N

Staff administration
0 + 0.35N

Hall
0+0.3N

Total area (m²)

Number of sixth form places (N)
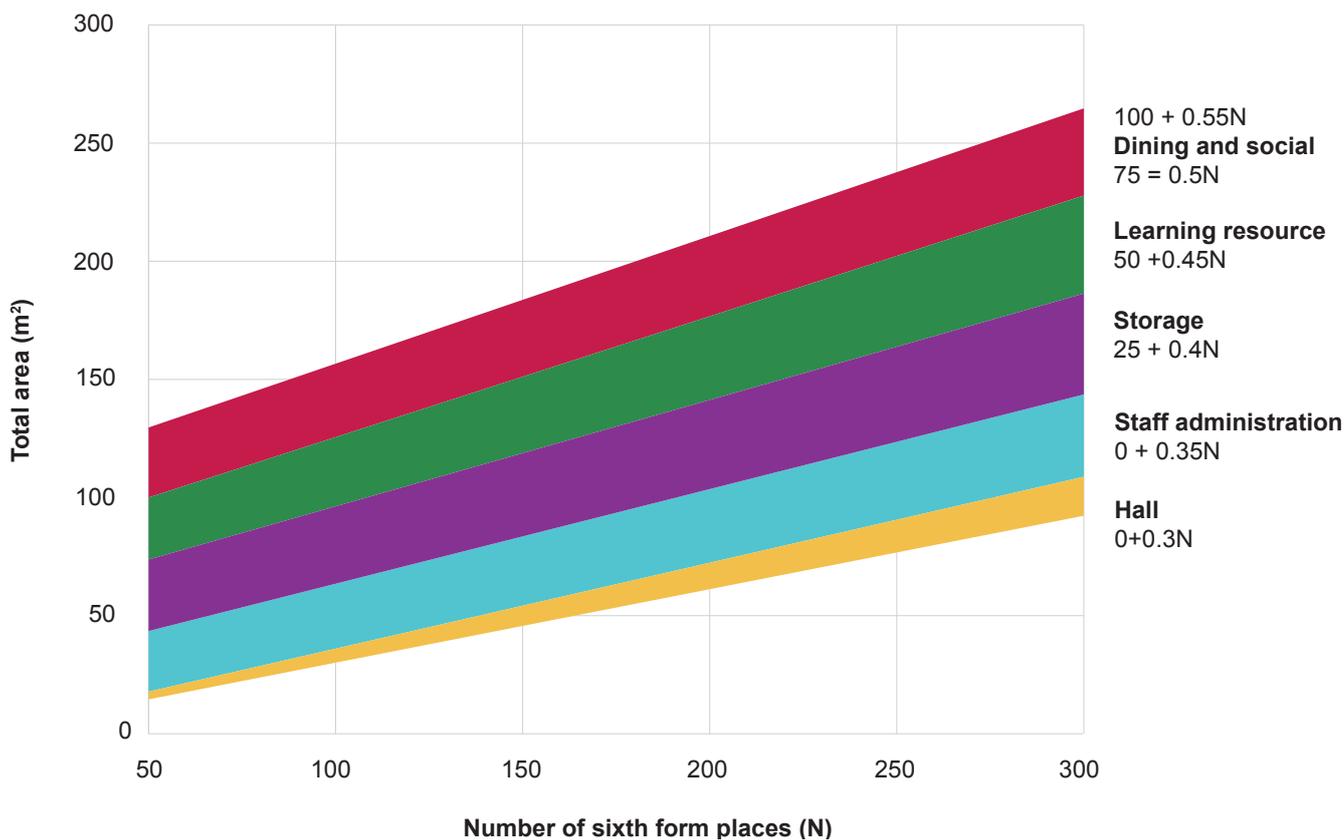
The bottom of each zone, which can be calculated using the formulae shown in the Appendix 1, represents the minimum recommended area for that category of space.

The total area for each of these categories should be at least the minimum recommended in this guide (i.e. the bottom of the zone). If any of the individual categories are insufficient for the site (even if the total net area is enough) this is likely to compromise the best use of the buildings.

An area greater than the minimum but within the zone will usually be required for each category. The overall recommended net and gross area allows for the area of each category of space to average around the middle of each zone, through the provision of some 'float'. In practice, the float can be used to provide extra accommodation where it is most needed by each school: for instance, it could be used for an extra specialist provision e.g. dance studio, further staff accommodation or additional teaching spaces.

What is the float?

When you add together the recommended minimum area of each category of space, the remaining area will be around 8 to 11% of the recommended maximum for the total net area. This difference provides the 'float' which can be used to enhance some areas, depending on the priorities of the school.

Programme funding for school projects will be based on the recommended gross internal area (plus any agreed supplementary areas), and this will clearly not be sufficient for all categories of space to be at the top of each zone allocation – therefore, decisions have to be made against the particular priorities of the school and how the spaces can be best managed to utilise the spaces to deliver the curriculum and associated uses.

Schedule of Accommodation

A core part of the guidance is the development of an SOA to be provided as part of the funding submission.

Clear guidance and requirements will be provided in updated Business Case information to be issued by SCfL

A schedule for the whole school will include spaces in all of the five categories of space.

The guide supports development of a SoA to be used to calculate and outline the number and types of spaces recommended for a specific school based on its proposed pupil numbers, age range and curriculum.

For secondary schools a curriculum analysis, should be used to check the number and type of rooms that suit the curriculum of the individual school.

This document includes two sets of example schedules based on the 210 Primary and 900 Secondary (see Appendix 2) used as the basis for the consultation and reviews undertaken in the development of the guidance.

These schedules, at the back of this guide, are not intended to be prescriptive, but to indicate one of a number of possible sets of spaces, based on a typical curriculum and organisation. These can be used as a starting point for developing a schedule individual to the school and as part of the submission for funding.

Area guidance

The following sections give some guidance on the spaces required within each category. Each category:

- must include spaces required by regulation;
- should include spaces or areas in line with best practice and non-statutory guidance;
- may include other spaces where appropriate to the school's priorities or preferences.

The number and type of timetabled teaching spaces, within the basic teaching area and halls area, will depend on the demands of each school's or LA approach to delivering the curriculum. These in turn will determine the type of teaching storage required and some learning resource areas.

The number of each type of teaching space will usually only vary from those used in the example schedules (see Appendix 2) by plus or minus one, but the final brief should be based on a 'curriculum analysis' specific to the individual school's demands.

Basic Teaching area

Basic teaching area comprises all teaching spaces (except halls and PE spaces) for the full range of subjects on the curriculum. This is the case for both primary class bases and secondary timetabled spaces.

The graph(s) below on pages 36 and 37 gives area guidance for individual teaching spaces within the basic teaching area, depending on maximum group size. The top of each zone is the recommended maximum area for the category and may be required where:

- There is more FF&E to allow for a wider range of activities;
- More than one wheelchair user and assistant are likely.

In new schools these should all be at least standard classrooms, the minimum size for each space, see minimum area within the formula table in Appendix 1, generally allows for one wheelchair user, assistants, and an increasing amount of portable ICT equipment (including projectors).

However, it does not allow for any significant storage in furniture or coat and bag racks, as this is allowed for under the storage category. The minimum area is not recommended as this limit's future adaptability and flexibility in the function of the space and may limit the spaces ability to accommodate appropriate access requirements.

In existing buildings, some may be small classrooms, but there should be at least one standard classroom in each department, and alternative facilities for untimetabled access for ICT.

A few large classrooms can be useful to allow further activities such as map work or role play.

Primary classroom sizes

The graph below displays the recommended primary classroom sizes within the basic teaching area. The bottom of each zone represents the minimum size recommended for the group size. Formulas to calculate these areas can be found in the appendices.
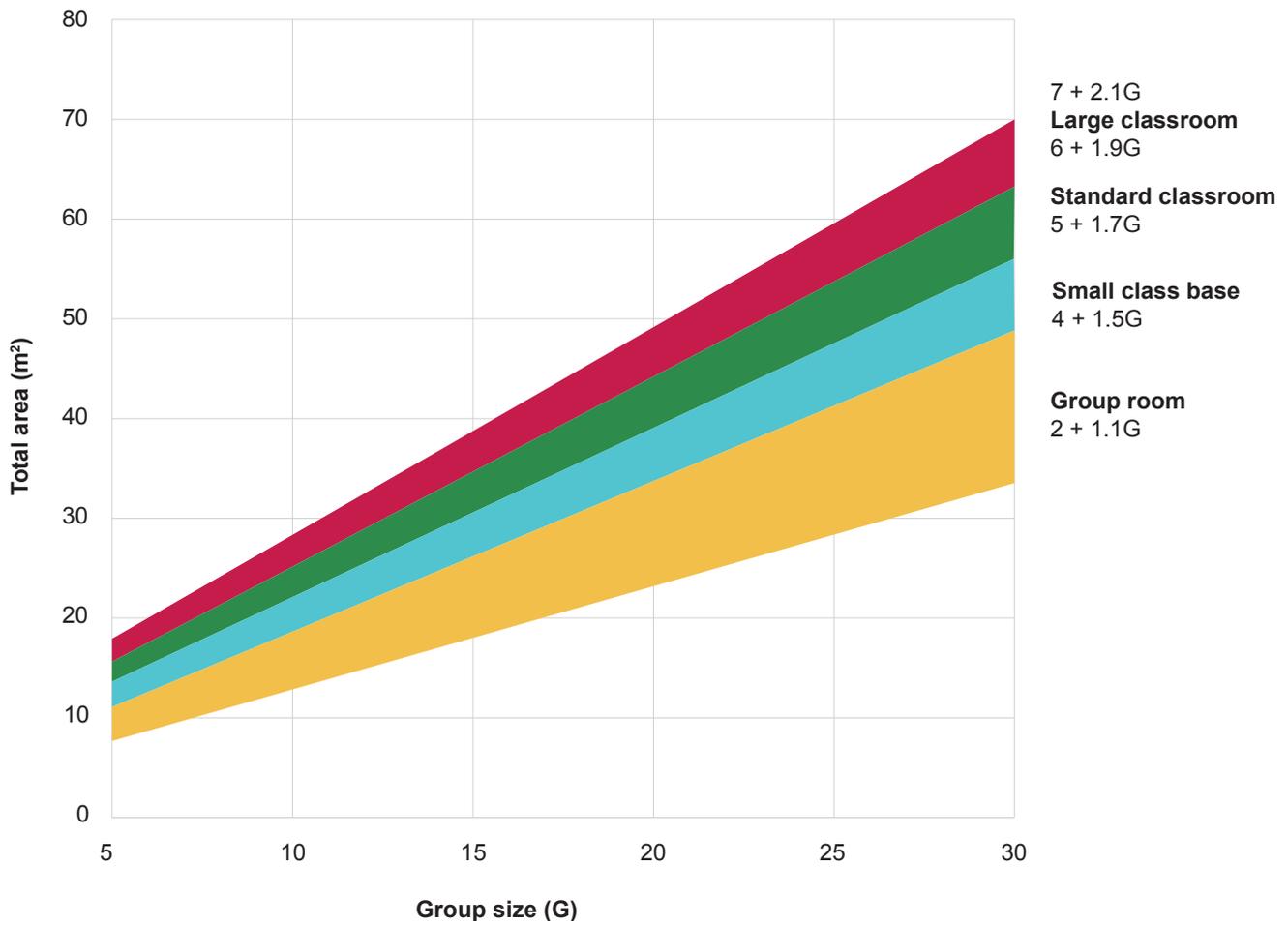
Secondary classroom size

The graph below displays the recommended secondary classroom sizes within the basic teaching area. The bottom of each zone represents the minimum size recommended for the group size. Formulas to calculate these areas can be found in the appendices.

Figure 8: Primary Classroom sizes

7 + 2.1G
Large classroom
6 + 1.9G

Standard classroom
5 + 1.7G

Small class base
4 + 1.5G

Group room
2 + 1.1G

Group size (G)

Figure 9: Secondary Classroom sizes

31 + 4.4G
Resistant materials

27 + 4G
Food room

28 + 3.6G
Electronics and control systems, 6th form science lab

19 + 3.2G
Large art room (textiles or 3D)

15 + 2.8G
Standard art room / science lab

11 + 2.4G
ICT, business, languages

7 + 2.1G **Large classroom**
6 + 1.9G **Standard classroom**
5 + 1.7G **Small classroom**
4 + 1.5G

Small group room
2 + 1.1G

Group size (G)
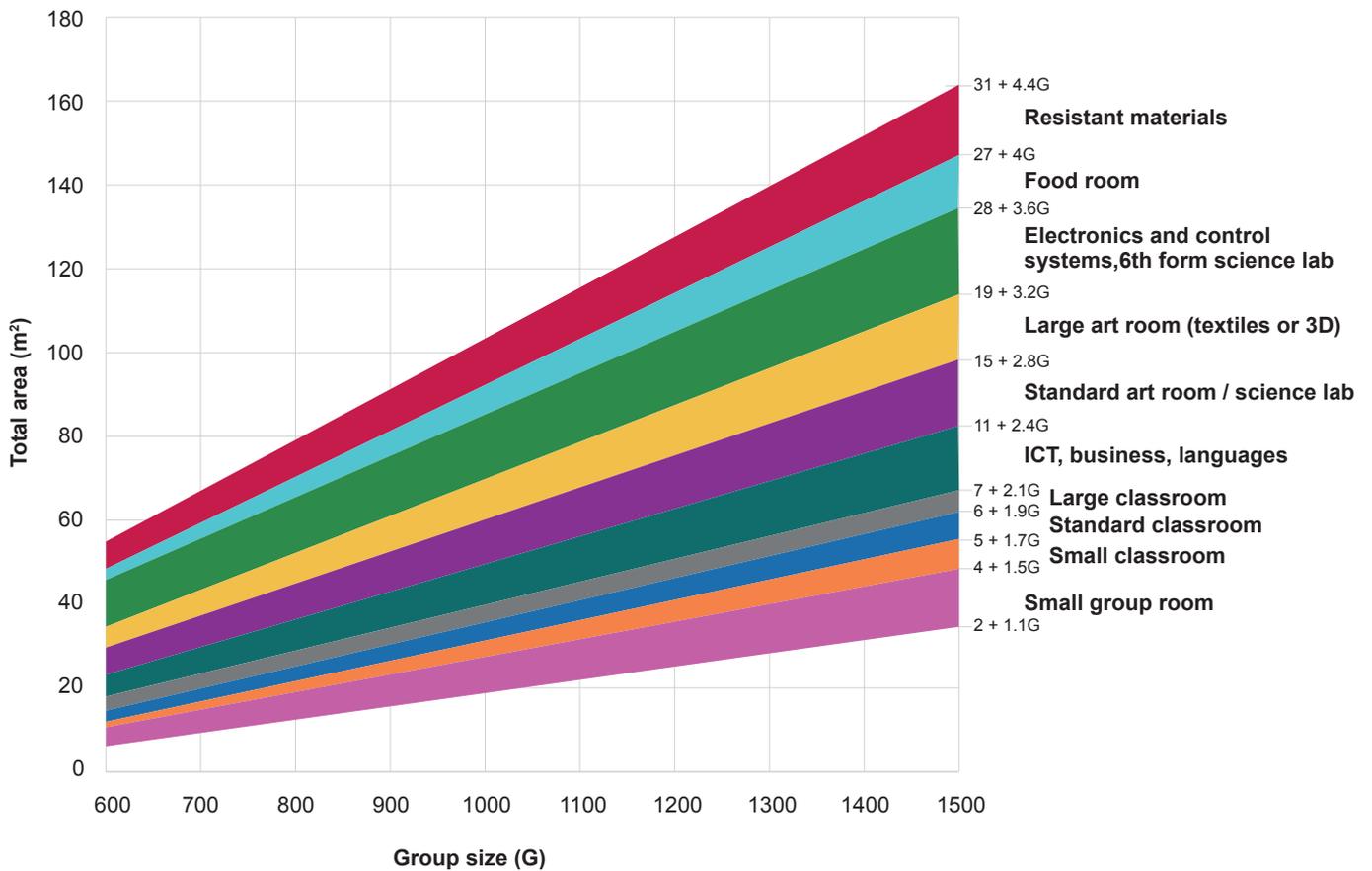
Basic teaching
Staff workroom
Small group room
Store

Six 60m² classrooms.
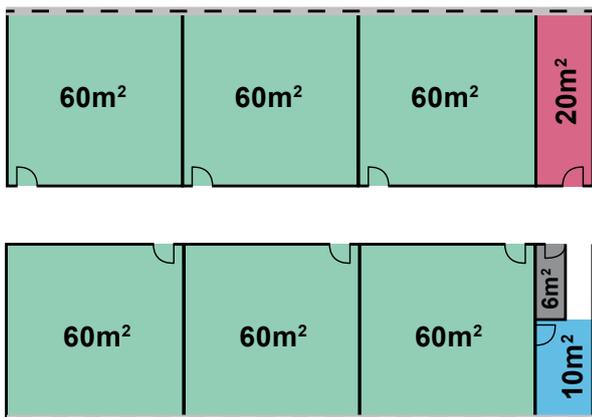
Six 56m² classrooms.
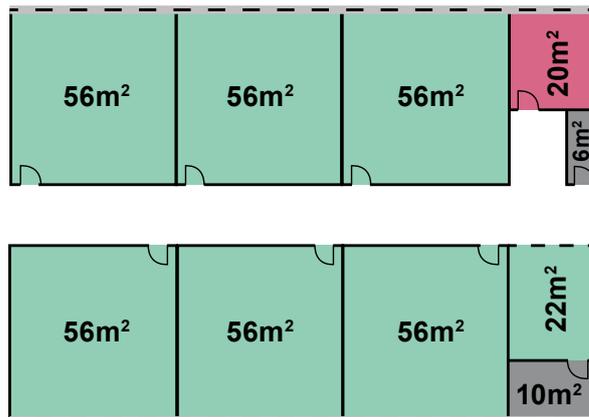
Four 56m² classrooms and two 68m² classrooms.
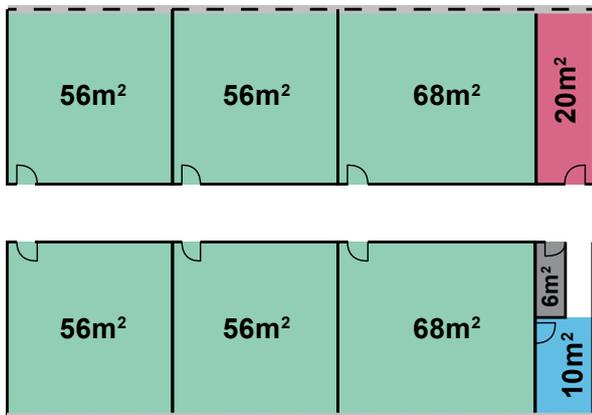
Longer term option using the same adaptability to create 90m² practical rooms or a large area for team teaching with adjacent small group rooms. This may have implications for the capacity of the school.
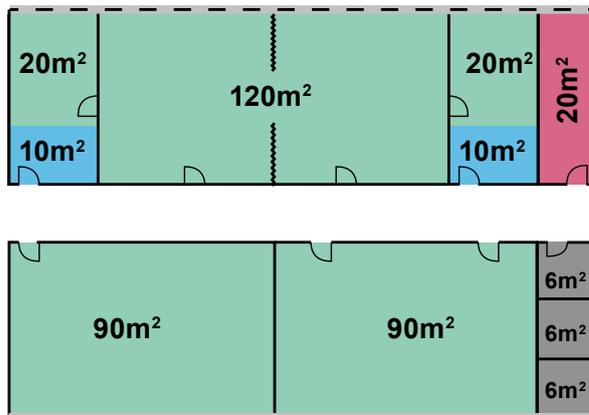
Note: *corridor shown at 2.1m wide for diagrams but other configurations may be preferred.*

Figure 10
Example classroom layouts

Primary basic teaching

Primary basic teaching spaces should include:

• Classrooms (enclosed teaching space) or class bases (semi-enclosed spaces opening onto a shared teaching area), with one for every ~30 pupils.

They may also include:

• Shared teaching areas shared by groups from two or three adjacent class-bases, (and usually able to be partially supervised by the teacher from each class base) to allow some facilities, usually for practical work, to be shared rather than provided in every classroom. This could include for the provision for a cooker: at least a 4m^2 food bay where a cooker can be situated for small groups.

• Specialist practical spaces: enclosed rooms fitted with specialist equipment and shared by several classes. May be a specific room ideally for up to 15 pupils or for up to 30 pupils, for art, design technology or science activities

• ICT room/base: if the school prefers a separate space where all or half a class can use computers

• Large group room: usually for up to 15, if the school prefers a separate space to allow, for instance, a year group to break into more groups for a subject

The basic teaching area needs to account for all forms of activities that will take place in the area and the required FF&E. Adjacent table displays typical activities and required FF&E that all year groups participate in. Additional equipment can be considered if linked to the delivery of the curriculum.

Activity	Fittings, furniture and equipment
Group discussion, whole class teaching	Whiteboard, interactive screen or similar
Table-based classwork	Adequate table space, generally arranged in groups
Individual, group or whole class ICT based work	parking' area for laptop trolley, data points and wireless
Science and art using water, paint and glue	Sink, washable floor area and resources for simple 'wet' practical activities, using the furniture available
Design Technology, working with a range materials such as card or wood, or construction kits	Further tables or fixed side benching and resources for wet and messy work, option of 'heavy duty' tables for hand tool work in specialist space
All activities above	Adjustable table and specialist appliances for wheelchair user, with space for assistant

Table 5
Activities to be accommodated in basic teaching area for all year groups

Activities and facilities	Nursery, Reception	Years 1 and 2	Years 3 and 4	Years 5 and 6
Free floor space, usually on a carpeted area, for gathering the whole class together sitting on the floor, for teacher-led instruction, group discussion, literacy, numeracy, storytelling	Typically required	One area used for both	One area used for both	Generally not required
large scale construction kits, some ICT space-consuming work using robots or similar	Optional			Typically required
Book corner or quiet area with room to browse, and cushions (with the option to overlap with the free floor area if small class-base in zone B), for individual or group reading/ research	Typically required	preferred	Optional	Not required
music or language audio-visual resources (potential sharing space with book corner)	preferred	Preferred	Optional	Not required
Space for creative play and role play	Typically required	Preferred	Not required	Not required

Table 6
Optional activities to be accommodated in basic teaching area

Secondary

The number of timetabled spaces within the basic teaching area of a secondary school will depend on the curriculum and group sizes.

Almost half the subjects taught in secondary schools are 'general teaching', normally requiring standard classrooms. These include core subject; welsh, english, mathematics, modern foreign languages, history, geography, religious education, general studies and personal, health and social studies.

General teaching spaces:

In new schools these spaces should be general classrooms or, for smaller sixth form groups, seminar rooms to ensure each has sufficient room for wheelchair users and assistant. These spaces can be considered flexible to accommodate different subjects and extra-curricular activity. These will generally be subject-specific, for instance for mathematics, english, humanities or modern foreign languages, but may be predominantly for a year group learning a range of subjects.

ICT-rich teaching spaces:

With the increasing use of laptops and tablet computers, the need for untimetabled ICT-rooms as a bookable resource has diminished.

However, there is still likely to be a need for a few ICT-rich classrooms, equipped with fixed desktop computers for each workstation, to teach computing as a discrete subject or to accommodate a language laboratory. ICT-rich classrooms with fixed desktop computers for half the workstations may also be appropriate for business studies or vocational learning.

Light practical teaching spaces

Will generally have water, drainage and occasionally gas services and chemical resistant finishes, and will often be ICT-rich. All but science laboratories, which should be serviced by a central preparation room, should have one, or preferably two, accessible 'walk-in' store(s) accessed from the room for resources and work in progress. They include:

- Science: general science laboratories and, particularly where there are post-16 places, specialist science laboratories (for more advanced experiments. These may be paired with science studios which can be used for light experiments but would mainly be used for classwork, discussion and demonstrations.
- Art: general art rooms and 3D art rooms for clay or wet textiles such as screen printing.
- Design Technology, light practical spaces are likely to include graphics products and constructional textiles and may include, where there is demand, a room for electronics and control systems;

- Practical vocational courses, light practical spaces may include a health and beauty salon, which may incorporate a 'reception' area that can be accessed by visitors.

Heavy practical teaching spaces will have fixed equipment (such as lathes or cookers), very resistant finishes, heavy electrical loads and often for some specialist extraction. The configuration of FF&E typically needs a room depth of at least 7.8m but this should be reviewed based on the specific ventilation strategy.

They include:

- food rooms for practical cookery activities with a cooker and sink for each pair of pupils. A restrictive food room can provide a cooker for each group of three pupils. A space for vocational catering courses, with specialist FF&E may be needed;
- workshops for Design Technology and vocational courses, such as engineering or construction;
- a fitness/ exercise studio for PE.

Recommendation

Increase all standard classrooms to allow flexibility in the delivery of the curriculum and future proofing to adapt all class rooms in the future.

Performance Teaching Spaces

Music, drama and media studies will require spaces with appropriate acoustic properties, and blackout facilities where necessary, with access to a hall for performances to audiences larger than the class group. Dance would be taught in spaces in the halls category.

Basic teaching spaces for these subjects include:

- music classrooms and/ or an extensive music classroom, if the option for all pupils to have a keyboard is preferred;
- drama studio and/or music recital space, or a shared space for both;
- audio-visual studio for media studies.

These spaces may also be suitable and popular for community-use and this should be considered when specifying their location and other requirements.

Halls and dining areas

Halls are large spaces that have particular height, finish and acoustic criteria, depending on their use.

All secondary schools should have a main hall, primarily for supporting the curriculum but also can be used for assemblies (for the whole school in small primary schools but for one or two year groups in larger secondary schools) examinations, public performances, parents' evenings and community events.

Figure 11: Secondary Halls and Assembly

750 + 0.35N

Total halls area
600 + 0.3N minimum

Assembly of 5 year groups
and exams for year group

Assembly of 3 out of 5 year groups

Total area (m²)

Number of 11-18 pupil places (N)
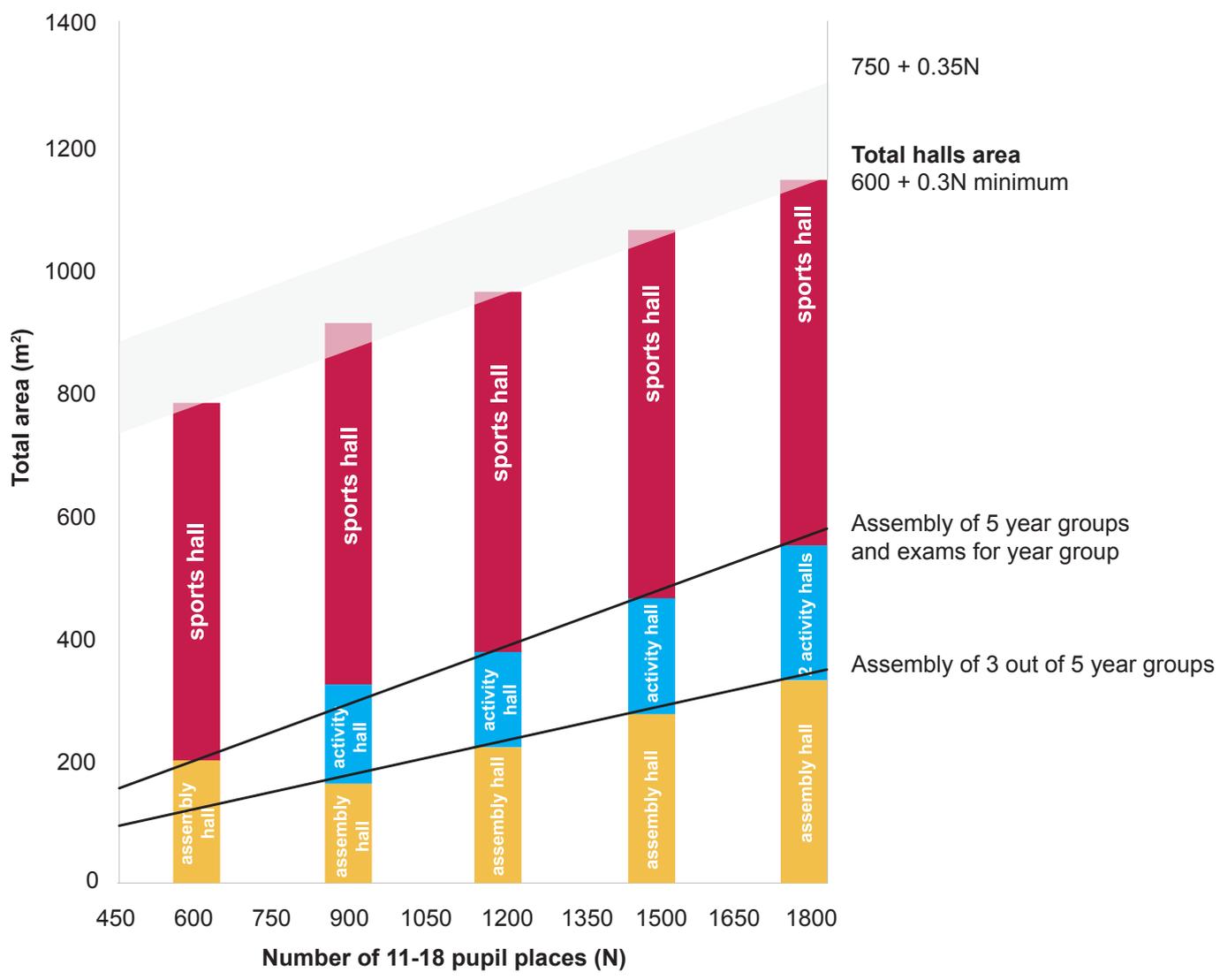
Figure 12: Primary Halls and Assembly

115 + 0.35N

Total Halls Area

100 + 0.3N minimum

20 + 0.3N
Assembly
15 + 0.25N

140m² minimum for KS2

120m² minimum for reception and KS1
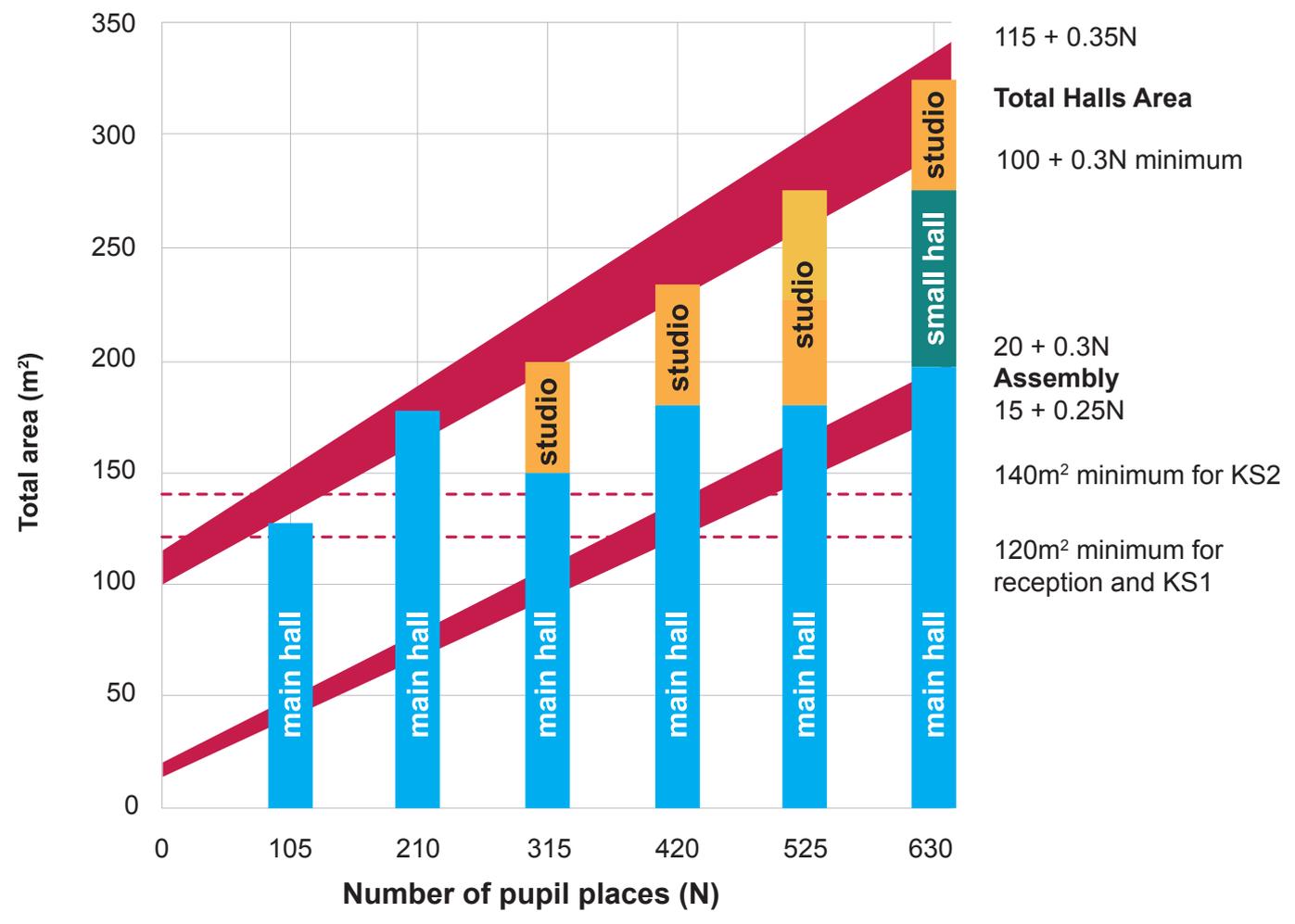
Recommendation

Size halls in line with the guidance but design should locate multiple hall(s) together to support the preferred catering and dining configurations.

Provide appropriate storage adjacent to the halls for the dining equipment.

Dining Policy and Time Management

The implications of timetabling and alternative uses will have an impact on the design and location of the dining area.

The way that the school day is timetabled can significantly impact design and sizing the hall(s). Staggered timetables can reduce the demand for area – from half the school being able to access dining facilities while the other half is in lessons, to whole year groups, such as the sixth form, being taught at different times of the day and reducing the demand for timetabled teaching spaces.

- If this option is to be available, the dining and social facilities should be positioned such that their use cannot disturb pupils in quiet lessons or study.
- If using a 'split lunch' system, it may be easier to have a minority of pupils eating lunch at any one time: this can make the prevailing activity in the school quiet work, rather than noisy social activities, at all times, as well as reducing queues.

Appropriate storage and resources should be provided to clear away and stow chairs and tables. As well as a traditional dining hall, there are opportunities to create a much wider range of eating spaces, cafes, buffet areas or 'cyber-cafes' that offer nutritious food. Many schools use this facility to provide breakfast and other meals for both pupils and staff, and it can become a vibrant heart to the school community.

Recommendation

There should be early discussion or consultation with the school's catering team/ provider to understand the number of sittings for secondary school. While sizing of halls will support the delivery of meal at lunch, it is considered a management item, and can be further bolstered by understanding of the methods to provide the necessary catering needs for the specific school(s).

Primary school halls and studios

Primary schools larger than one form of entry (FE) will require an additional small hall and/ or studios (one for approximately every further FE). In a primary school, the total area for this category of space should include:

- a main hall of at least 140m^2 for juniors, sufficient for PE and dance, assemblies, performances, parents' evenings and dining;
- a studio of at least 45m^2 in schools with more than 300 pupil places, to provide more space for music, drama and 'circle time' if required;
- an additional small hall of at least 80m^2 in schools with more than 600 pupil places, for PE without apparatus.

The main hall will usually be used for dining, in two or three sittings (or equivalent if continuous flow) over the lunch period. It will have an adjacent servery that is usually within a space that can also accommodate a chair store for dining furniture.

In large primary schools, where there are three or more spaces in this category, one space may be permanently set up as a dining space depending on the approach to catering management, noted above.

Secondary schools halls and studios

All secondary schools will have a main hall. In new secondary schools the area for this category of space should include:

- a school sports hall, which should be designed to critical minimum dimensions, for three or four badminton courts in schools with more than 600 places (see below). Typically this will also be used for examinations
- one or, in schools with over 1500 places, two activity or dance studios of at least 120m^2, with a minimum internal width of 10m and height of at least 3.5m and a sprung floor, for some gymnastic activities, dance; and examinations (if required or identified in brief);
- dining areas sufficient and appropriate for those pupils who wish to eat meals, based on the number of 'sittings', as discussed below;
- sixth form social spaces, where applicable, which should total at least 40m^2 plus 0.3m^2 for every sixth form pupil place.

Sports halls in secondary schools can be a:

- school sports hall, providing a multi-purpose space for PE and also exams, and for informal recreational community use outside school hours, typically 18m x 28m or 33m (for three or four courts respectively) x 7.5m high if new; or
- community sports hall, if funding allows, for school use and formal club-level use outside school hours, designed to good practise larger dimensions, typically 20m x 34.5m (with four courts) x 7.5m high if new.
- Where existing facilities are to be used, then the above the dimensions can be omitted.

Exams will typically be done in the sports hall, so the specification should allow for a suitable environment for this.

Dining area

The total area of spaces used for dining should allow 0.9m^2 per 'cover', or dining place. The number of covers should be based on the predicted number of pupils who would eat lunch on site (including packed lunches) divided by the number of 'sittings' or equivalent (if continuous flow) in the lunch break. Crucially, the number of sittings will depend on the time available for lunch. The total area of spaces used predominantly for dining and socialising should include sufficient and appropriate areas for those pupils who wish to eat meals, based on a number of sittings.

It may also include:

- further provision for cold meals or snacks, for instance from vending machines;
- social areas for other year or 'house' groups.

The main servery is part of the kitchen area allocation and should be adjacent to the dining area used for hot food diners. In a secondary school, the dining area will include:

- tables and chairs for dining 'covers' and space to access them;
- reasonable space for pupils to queue up to and in front of the main servery and past checkout facilities;
- clearance areas and waste disposal;
- where required, satellite or temporary servery areas.

Primary and secondary learning resource areas

The graphs below display the recommended learning resource areas for primary and secondary schools. The minimum recommended area for a library resource area is also included

Figure 13: Primary Learning resource areas

Max = 35 + 0.23N
Learning resource
Min = 15 + 0.15N

Library
15 + 0.08N

Total area (m²)

Group size (G)
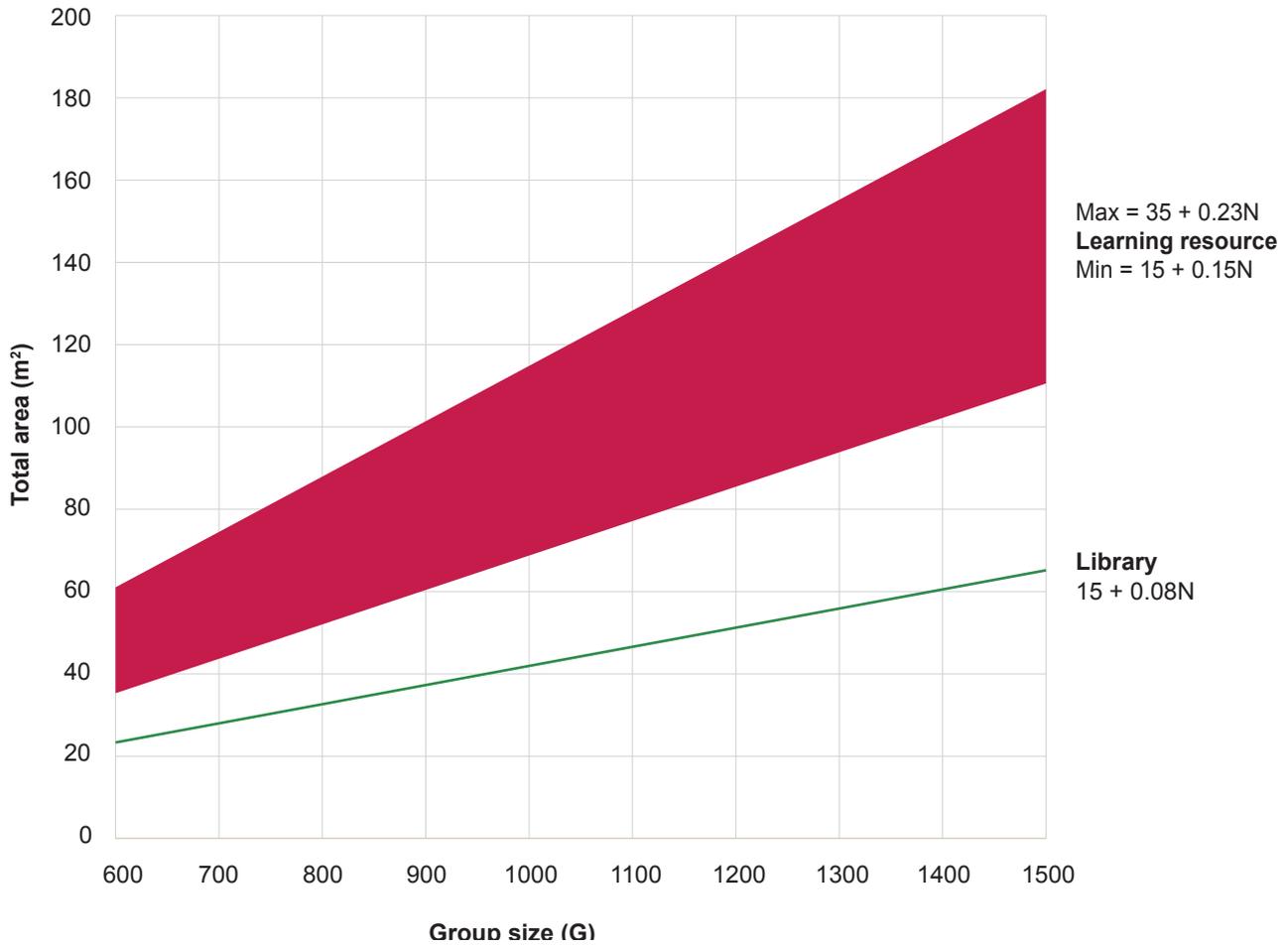
Figure 14: Secondary Learning Resource areas

Max = 135 + 0.28N
Learning resource
Min = 75 + 0.25N

Library
40 + 0.08N

Total area (m²)

Number of pupil places (N)
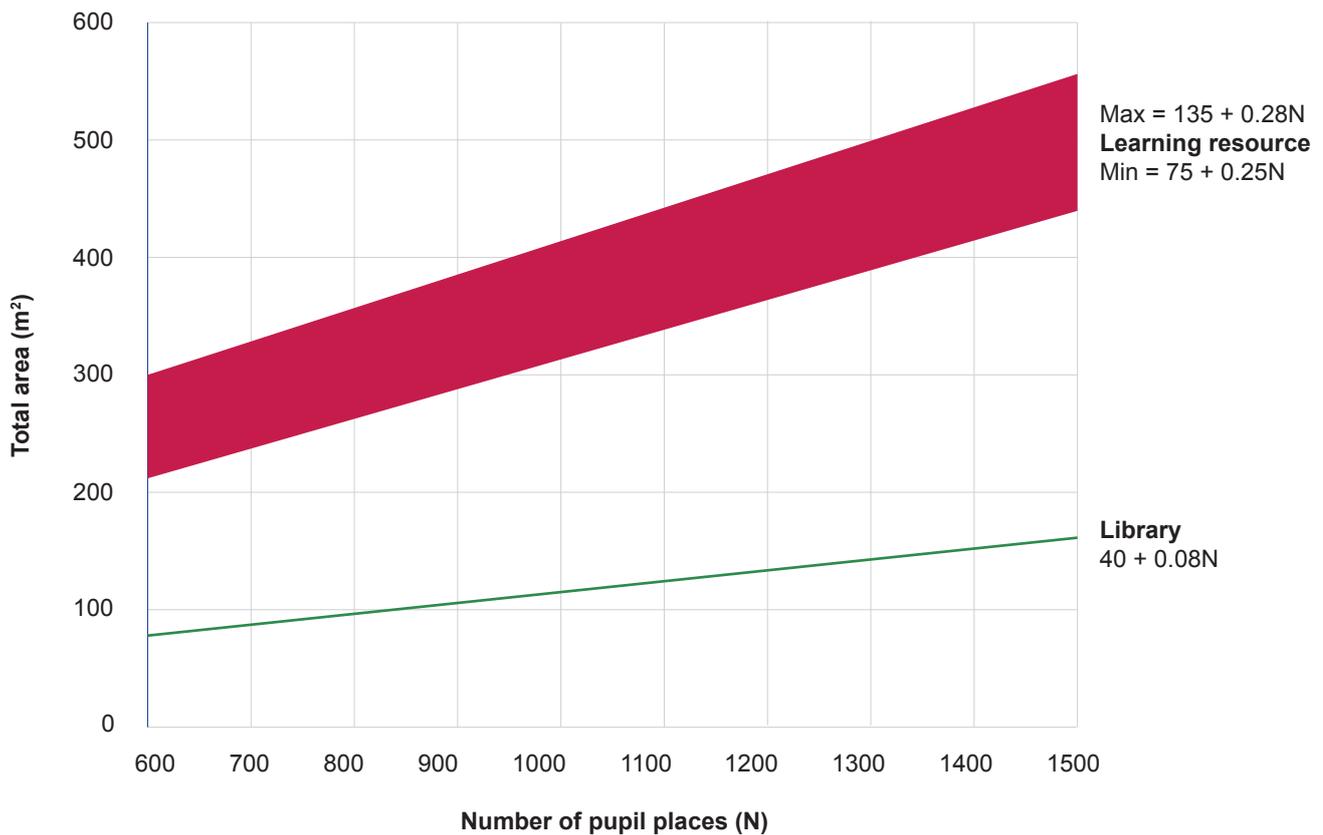
Learning Resource Areas

Learning resource areas are spaces used for learning but not timetabled for lessons. The total area for this category of space should include:

- the library resource centre totalling at least 15m^2 plus 0.08m^2 for every primary pupil place and 40m^2 plus 0.08m^2 for every secondary pupil place;

- small group rooms throughout the school: at least one for every 150 pupil places, ideally spread around the school with some accessible directly from adjacent teaching spaces, to provide discrete, quiet spaces for learning support, for instance behaviour management or private counselling.

- ALN resource base for learning, behaviour, therapy support and case conferences;

Primary schools

In primary or all-age schools, the total area for this category of space may also include:

- a further small group room for the nursery, if applicable, for quiet activities such as storytelling;

- changing room(s) without showers for Key Stage 2 pupils, although this is unusual and other spaces may double for this function if required.

Secondary schools

In secondary schools, the total area for this category of space should also include:

- music group/practice rooms: up to four for each timetabled music room, including one extensive group/ practice room for drums and for groups up to seven;

- specific area(s) for sixth form study where applicable totalling at least 20m^2 plus 0.2m^2 for every sixth form pupil place.

And may also include, subject to need:

- a lighting and audio control room at the back of the main hall;

- local resource areas within departments such as design and technology;

- a small recording studio or control room;

- a kiln room if there is also a 3D art room;

- a darkroom or other ancillary areas.

Staff and Administration

The total area for staff and administration comprises most non-teaching areas within the net area except stores. The total area should include the following range of spaces for any school:

- a general office for administrative staff, with storage for confidential records in FF&E, a reception desk onto the reception area, and the option of a second reception desk onto a part of the school open to pupils;

- a secure reception area for visitors, with access to the rest of the school controlled by the office staff (this net area is for seating and display, over and above the circulation space through the entrance/ reception space);

- an interview room, ideally accessed from the entrance foyer or reception area, along with an accessible visitors' toilet, so that they can be used by visitors without them entering the main school;
- a head teacher's office (meeting room) of about 12m² to 15m²;
- a sick bay or sick room, required by The Education (School Premises) Regulations: for the short-term care of sick and injured pupils. This should be considered different to the MI/ therapy room described under learning resource areas and should be near to the main office and a toilet, and include a washing facility;

Primary schools

In primary schools, the total staff and administration area should also include:

- a preparation and social space for teaching staff, usually in the form of a central staff room for work and social use, including a kitchenette.

And may also include:

- a separate staff work room;
- offices for other senior teaching staff, such as the deputy or assistant heads, who may need privacy for interviews and pastoral support;
- separate reprographic facilities, if they are not in the general office;
- an office for a facilities manager or caretaker in schools with over 400 pupil places

Secondary schools

In secondary and all-age schools, the total staff and administration area should include:

- reprographic facilities, which schools may choose to provide as a series of bays or a separate specialist room with appropriate ventilation;
- a staff social area or staff room with a kitchenette usually centrally located;
- staff work area, either centrally located (combined with or adjacent to the staff social area) to encourage interaction, or in smaller local staff work rooms, usually department-based - providing both would result in the under-use of space;
- offices for other senior teaching staff, particularly heads of year, who will need privacy for interviews and pastoral support;
- a meeting room or conference room, usually near to the head's office;
- an office/ meeting room for the ALN team.

And may also include:

- additional accommodation for the bursar and other administrative staff;
- an office / workshop for facilities manager or caretaker;
- an office/ workshop for ICT technician.

Storage

The total area for storage for all schools includes teaching storage, for teaching resources such as materials and equipment and pupils' work. It also includes non-teaching storage for pupils' belongings, administrative resources, and cleaning and maintenance equipment..

Primary school teaching storage

Where there are primary places, the total storage area should include the following teaching storage:

- full height, lockable storage of at least $1m^2$ for every classroom, easily accessible by staff (but not pupils), for resources such as valuable or hazardous items;

- specialist walk-in stores for teaching resources: at least one $5m^2$ storeroom, accessible ideally from a corridor or shared teaching area, housing shared resources for practical subjects such as science, design and technology and art;

- indoor PE equipment storage, opening onto one side of the main hall, totalling at least 10% of the area of the hall. It is important that defined teaching storage is provided to avoid compromising the usable area and flexibility of the teaching spaces

Secondary school teaching storage

Where there are the following secondary places, the total storage area should include:

- general teaching/ ICT stores: at least one of $5m^2$ for every general teaching department for books and materials for general teaching subjects: preferably accessed from a circulation area or perhaps a shared staff workroom;

- science preparation/ storage: central preparation room for science laboratories totaling 0.35 to $0.5m^2$ for every workplace in science laboratories, depending on the age range and storage available in laboratories, including a cupboard for radioactive materials: previous guidance noted that one space is provided for all science spaces but single central prep room may not always be practical and spaces could be provided for adjoining classrooms or labs, this may need to be more, for instance if science is delivered over two floors;

- chemical store: separate store for chemicals off or near the preparation room;

- practical stores: specific walk-in stores for materials, equipment and pupils' work in-progress in practical subjects: two of $5m^2$ for each art room and at least one of $5m^2$ for all other light practical teaching rooms except science spaces;

- DT preparation/ storage: room for resistant materials workshops of at least $30m^2$, of a suitable shape to safely accommodate machinery (such as a circular saw) in the centre and storage around the edge;

- food store/ prep room: preparation/ storage room or smaller store rooms for food rooms totalling at least 10m^2;
- music store: at least one shared music instrument store of at least 5m^2;
- drama store: a store for costumes and props off one drama studio, where applicable, of at least 10m^2;
- indoor PE equipment storage at least 10% of the size of the teaching space, opening onto the side of the sports hall and of the activity studio;
- outdoor PE storage, accessed externally, ideally near to outdoor PE facilities.

Non-teaching storage

Non-teaching storage should include:

- for primary pupils, coat and bag storage for pupils' personal belongings, equivalent to at least 3m^2 per class (the net area not including the circulation past the coats), located in separate cloakrooms, corridors or directly off classrooms, depending on the routes used to access classrooms from the playground. Some new school models allow for enlarged classrooms to contain cloaks;
- for secondary pupils, lockers off the circulation space and the area in front of them to open doors, which is part of the locker area (typically 0.75m deep), can enhance the width of corridors when the lockers are not in use;

- secure storage for valuable items such as school and personal records, archives or examination papers, located to suit the relevant examination board requirements;
- storage bays suitable for mobility equipment around the school;
- central storage for bulk stock, such as pens or paper;
- storage for maintenance equipment and cleaners' and caretaker's equipment;
- furniture storage for seating, chairs, tables, exam furniture and staging, and for dining furniture when the hall is used for dining. This may be positioned immediately adjacent to the main servery in the kitchen, so it can double up with the queuing area in front of the servery when the furniture is in use.

Non-Net Area of Buildings

The non-net area is made up of variable areas that are not included in the net area of the school. It comprises the five categories of space listed below, plus non-net areas supporting any supplementary net areas for non-school or support functions (see Section 6: f School Specifics).

• Toilets and personal care;

• Kitchen facilities;

• Circulation (25% to 30% of net);

• Building services, such as low carbon heating source (2% to 4% of net);

• The area of internal walls (3% to 6% of net)

The first two categories of space will depend on the number of pupils, community use and, for kitchens, the type of catering arrangements in the school. The last three categories will generally be directly proportional to the net area, so it is important to include any supplementary net area in the total net area before calculating the requirement for these areas.

Toilets and Personal Care

The design should align with the latest version of The Education (School Premises) Regulations, for toilet provision, type and locations..

Toilet location policy: the size, location and design of toilets can have an impact on the potential for bullying, supervision, and inclusion: this can vary from one or two central toilet 'blocks' to smaller facilities in every department, perhaps with fully accessible cubicles in each toilet.

The total area of toilet and personal care facilities must include:

• toilets for pupils: at least one for every 20 pupils but there must be one for every ten full-time equivalent pupils aged two to four, including reception and nursery places,

• separate toilets for staff: at least one toilet with wash hand basin plus one for every 25 full-time equivalent members of staff (not including catering staff) rounded up;

• accessible toilets for disabled pupils, staff or visitors (which may also count towards the number of staff toilets above);

• in schools with pupils in Year 7 and above, changing rooms with showers, near to indoor and outdoor sports provision.

And should also include:

• changing facilities for staff, which may also offer accessible changing facilities;

• a specialist hygiene room with fixed or mobile hoist and space for assistants to change a pupil.

    - In a primary school this should contain a changing bed and accessible WC unless this is included in an adjacent accessible toilet (9m2).

    - In a secondary school this should contain an accessible shower, sluice toilet and a changing trolley (12m2).

Some of the spaces listed above may be designed to allow facilities appropriate to:

• adult community use, usually outside the school day;

• religious requirements, including orientation and ablutions.

The location and design of toilet and changing room facilities should balance the demands for both privacy and adequate supervision.

Normally in secondary schools it is sufficient to provide changing facilities for half a year group with equal and separate facilities for boys and girls in co-educational schools. Showers should generally be in the form of separate cubicles, with about one for every seven pupils changing. At least one accessible changing area (with a sanitary fitting, wash basin and shower) should be provided, although this may also be used by staff.

Kitchen Facilities

The kitchen area is often approximately half the area of the dining facilities, depending on the type of catering. It must include:

- facilities for preparing food and drink, and washing up afterwards, where it is needed.
- food store rooms;
- facilities for catering staff, including changing areas, toilets and a workstation for administration;
- main servery serving hot food and other items.

The size of the core preparation area will depend on the equipment needed, which in turn will depend on the type of preparation system to be used that ranges from traditional, through cook-chill to pre-prepared 'fast food'.

The minimum recommended area will suit a cook-chill kitchen, or similar, whereas the minimum size for a full service kitchen is $30m^2$ + $0.08m^2$ for every pupil dining on site.

There should be easy access for deliveries and a secure site for bins.

Circulation

The circulation should be at least 22.5% of the total net area of primary schools (or 20% in single-storey schools) and 25% of the total net area of secondary schools. This also applies to supplementary area. Within this area:

- all rooms should be accessed from a circulation route, except store rooms accessed directly from learning spaces;
- corridors leading to more than one or two teaching rooms should have a clear width of at least 1.8m wall to wall (2.55m wall to wall where there are lockers);
- shorter corridors leading to one or two small spaces should have a clear width of at least 1.2m;
- where there is an access route through a space, such as dining or library, to another room, a 'strip' of circulation at least 1.2m wide should be discounted from the usable net area.

Building services

The provision should align with the requirements to deliver net zero carbon in operation and the design team should consider the benefits of central vs decentralised building services provision.

An area equivalent to at least 2-4% of the total net area will be needed to accommodate building services, equipment rooms and any server room(s). Space should be allowed externally for air source heat pumps (ASHP).

Further area will generally be needed if ventilation plant, chimneys or sprinkler tanks should need to be included in the gross area of the building.

Figure 15: Primary dining and kitchen area

Dining area
15 + 0.3N

Max = 22.5 + 0.23N
Kitchen area
Min = 0 + 0.1N
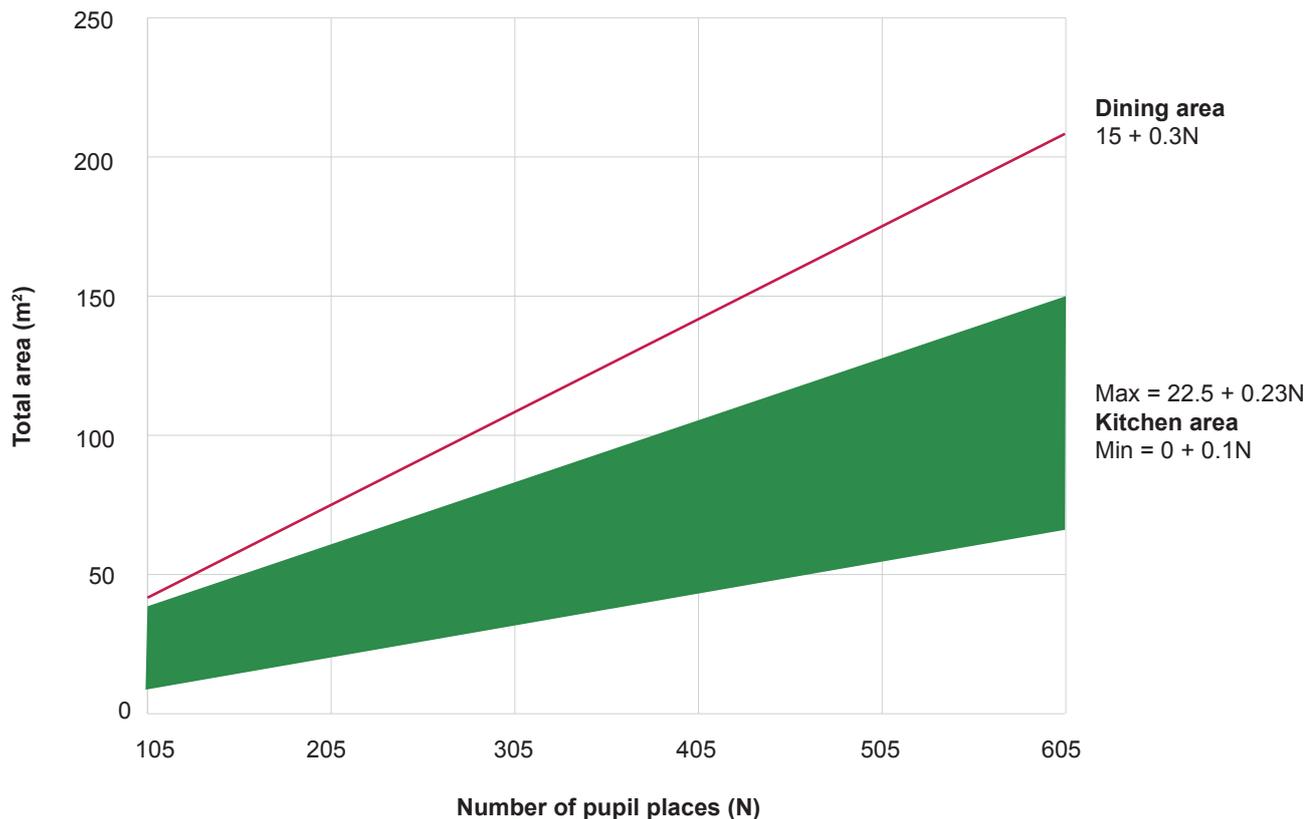
Figure 16: Secondary dining and social areas

Max = 175 + 0.31N
Dining and social & additional sixth form (11-18yrs)
Min = 100 + 0.26N

Max = 75 + 0.25N
Dining and social (11-16yrs)
Min = 25 + 0.2N

Max = 15 + 0.15N
Kitchen
Min = 0 + 0.1N
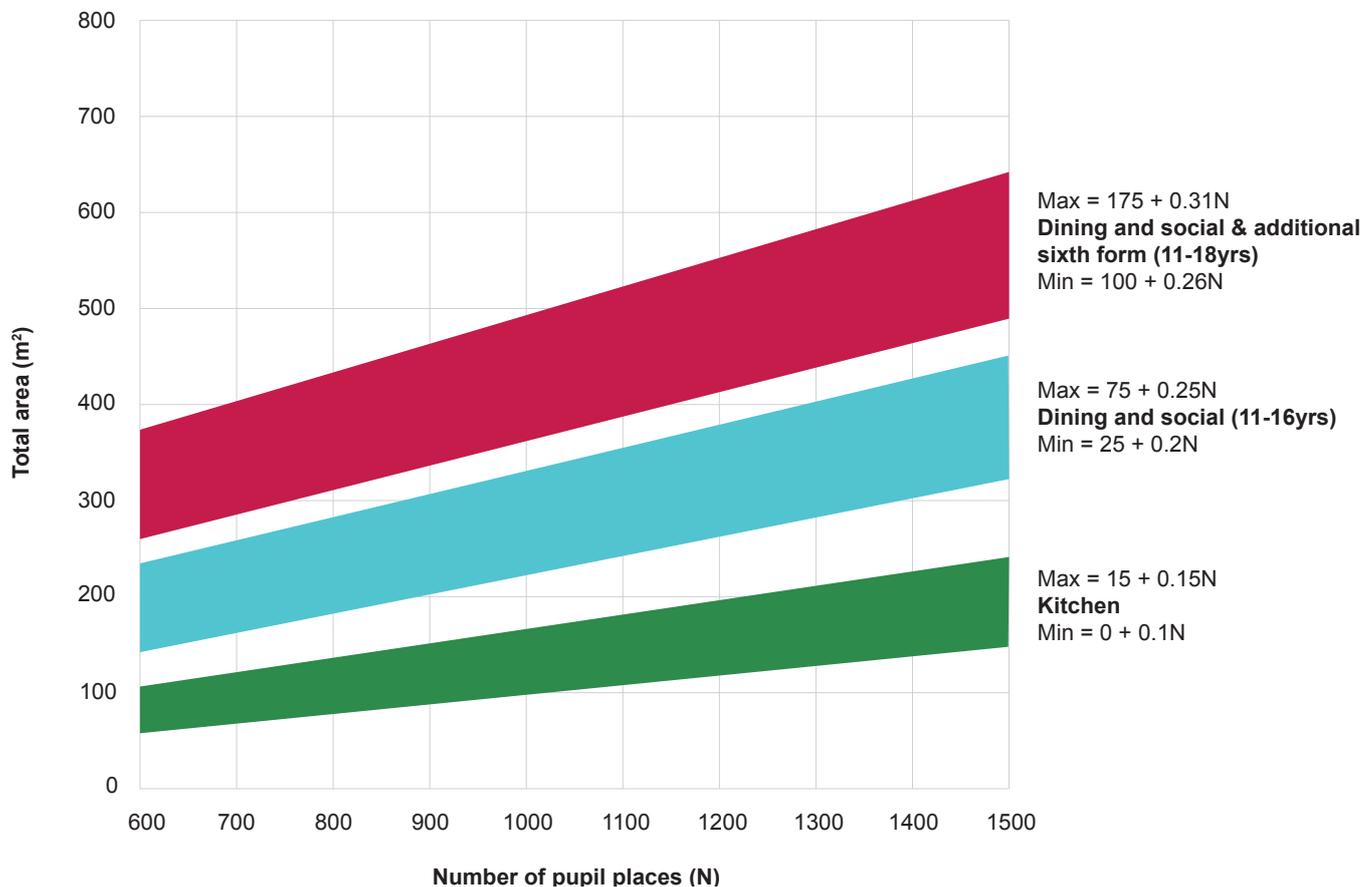
Internal Walls

The area of internal walls will occupy an area equivalent to at least 4% of the net area, and up to 6%, if the walls are thicker due to existing or different forms of construction. Acoustic requirements should be considered especially if providing ALN or other spaces e.g. community.

Supplementary Areas

Supplementary area is used for non-school or support functions not normally provided in mainstream schools catering for 3 to 18 year olds. This will include specially resourced provision for a specific special need, such as a designated unit, but not typical facilities for pupils with ALN.

The briefing team should assess if there is a need for any supplementary net area within the project. It is important to note that a dedicated, additional funding stream needs to be identified for any supplementary area, including the associated non-net area, unless that area already exists in appropriate accommodation.

There are three types of non-school and support area that fall within the category of supplementary area listed on page 49 and matching those in the net capacity assessment method.

Category	Types of facilities
Early years and childcare	• Crèche • Nursery provision for 0 to 3 year olds • Child-care provision for out of school hours
Adult learning and skills	• Adult learning and skills facilities not available to the school during the school day • Centres for LA Services, such as staff training
Additionally resourced facilities	• Additional facilities for pupils with ALN or disabilities, such as specially resourced provision or a designated unit • Non-school facilities funded from other sources and not available to the school during the normal school day, such as community library facilities or youth centres • Accommodation for LA designated support services, including peripatetic and support staff
Parent/ community rooms and chapels	• Parent or community room not available to the school • Chapel or similar place of worship not available to the school except for that purpose

Table 7
Supplemantary Areas

Additionally resourced facilities are those where the premises related costs of maintaining the accommodation are covered by specialist funding from the LA or other sources.

Some small non-school areas may be in supplementary area but can also be included in the recommended net area for the school, including:

- area to accommodate extra support facilities: this will include separate spaces available to the school for specific uses, such as ALN specialist resources;
- separate space not normally available to the school during the school day, such as a parent's room, an office for community staff who run facilities out of school hours, or separate locker or equipment storage for use by separate users such as after school/holiday clubs;

- non-school provision: this is separate space not normally available to the school, for example facilities for adult education or community use during the day.
- area to accommodate the enhancement of school facilities for community use: this will include spaces which have been enlarged beyond the recommended 'standard', for instance to allow for spectators in the sports hall;
- a chapel or contemplation room also used by the school for other purposes.

The guidance document does not include recommended standards for the supplementary net area, it is very important to include the desired allowance for supplementary net area in the total net area and the accommodation schedule. This will ensure that the allowance for non-net area is sufficient to allow for the circulation, building services and internal walls related to the supplementary area.

Net Site Area
- Sport pitches
- Games courts (hard surfaced)
- Soft informal and social area
- Hard informal and social area
- Habitat areas

Total Site Area

Supplementary Net Area
and associated non-net area

Buildings and Access
- Footprint of buildings
- Refuse/deliveries access
- Entrance paths and roads
- Car parking and drop-off
- Bicycle storage
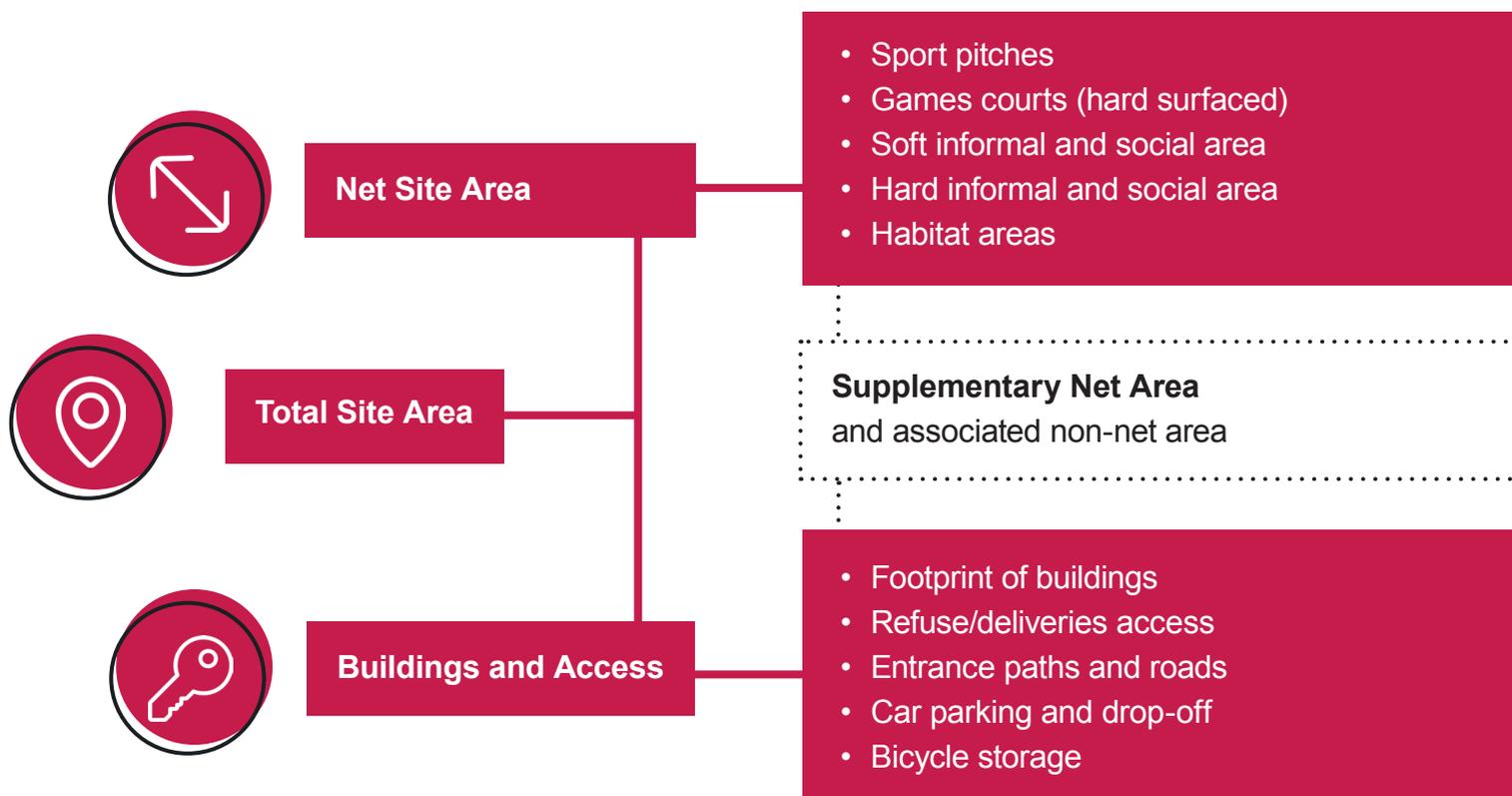
Specific Guidance

The following identifies expectations to be provided within specific schools types.

Primary specifics

General

Flexible design – there is the opportunity (where appropriate and cost allows) to utilise folding partitions to alter spaces for needs such as nurseries and after school provision.

Nursery

Any full-time equivalent (FTE) nursery places will require the same area per pupil place for every category except:

- learning resources – recommended to be a minimum of $0.45m^2$ per FTE nursery place;
- halls – the area of halls does not need to be increased to allow for FTE nursery places.

Nursery should include the following: – classroom, teacher's office, toilets (3-4no) including handwashing facilities as well as a store room. A small group room for the nursery can also be provided.

Separate entrance for the nursery could be provided to support childcare provision and the AM and PM drop offs and pickups.

Larger Kitchen area

Increased eligibility for free school meals. Consideration to storage requirements should be made as a higher proportion of free school meals may suggest a greater need for dining furniture.

Larger reception area

Larger reception areas may provide greater flexibility in use when considering additional community usage. $4m^2$ to $12 m^2$ to be provided for reception area for added flexibility.

Increase in Library area

Can be used as a learning resource base, ALN space, wellbeing, storage for ICT

Shared teaching spaces

Utilising the same teaching space for separate class bases e.g. art and D&T. This distributes area more efficiently as it allows some facilities to be shared rather than given dedicated space.

ALN

Food tech/skills room to be $30m^2$ to $50m^2$ in primary schools

Secondary specifics

Sixth Form

The guidance is not making adjustments to the area associated with Sixth Form provision. The calculation will increase the allowance based on amount of area per full time pupil.

In practice, 11 to 18 schools would have the opportunity to be more flexible within the overall area recommended for each category of space, rather than treating the 11 to 16 and sixth form cohorts separately.

- Dining spaces
- Science labs
- Study areas
- Social areas
- Seminar rooms
- IT rooms
- Group rooms

Science labs

The consultation confirmed that providing fewer dedicated science labs allows for greater flexibility in area provision. By reducing the minimum number of lab spaces, there is more space that can be given general teaching spaces and seminar rooms which have greater flexibility in use than science labs and also reduce costs and FFE associated.

There would need to be one science lab per ~230 pupils, each with a $20m^2$ preparation room.

Reception

Reception areas are no longer necessarily a dedicated space and now merged with general office or admin spaces

ALN

ALN provision to be at least $40m^2$. Support could be provided in multi-purpose rooms and divided larger (flexible) rooms.

- at least one small group room for every three classrooms
- at least one therapy space for visiting therapists to see pupils and to carry out administrative tasks, $12m^2$ for ambulant pupils, $15m^2$ for non-ambulant.

Food tech/life skills classrooms – consider the range $50m^2$ to $90m^2$ in secondary or all-through schools but size based on use.

Library/learning resource

Feedback from the workshops is that schools don't store or need as many physical books with the increase in access to portable ICT. There are opportunities to utilise local libraries and/or local services.

Flexible spaces

Consider how multi-function spaces can be used as:

- Family engagement spaces
- Personal spaces
- Independent learning / experience spaces
- Small group spaces
- Breakout and intervention spaces to regulate behaviour in mainstream schools.

ICT rich teaching spaces

Need for untimetabled ICT-rooms as a bookable resource has diminished with increasing use of laptops and tablet computers

ALN specific elements and area consideration

Additional ALN provision

Special schools, AP, SRP and Units all require more area per pupil place than mainstream schools because:

- pupils are taught in smaller groups, averaging around 8 to 12 and as low as 4 to 6 where pupils need extensive support;

- staff to pupil ratios are higher, particularly in a special school where 2 or 3 teaching assistants or support staff work alongside the teacher or give support in a separate space;

- multi-agency meetings are common during the school day requiring confidential meeting rooms (these can involve several people in special schools). These areas can also be used for the delivery of individual intervention and therapy sessions.

Recommendation

- One small group room per each classroom $10m^2$ to $13m^2$

- Up to three calming rooms ($7m^2$ each), up to two nurture rooms (~$25m^2$ each). Wellbeing rooms (calming, nurture, ALN resource) to be from $0.4m^2$ to $0.6m^2$ per pupil

- For ambulant and AP schools two to three hygiene/personal care rooms $12m^2$ each

- Sensory rooms: $12m^2$ to $30m^2$ (ambulant), and $20m^2$ to $35m^2$ (non-ambulant). BB to mention providing an immersion room

- Space provision for laundry room to be $4m^2$ to $6m^2$ per key stage

- In all schools mobility storage to be $0.1Nm^2$ to $0.2Nm^2$

Dining

The total area of spaces used for dining should allow $1.3m^2$ per 'cover' for ambulant pupils and 3 to $4m^2$ per 'cover' for non-ambulant pupils.

Additional Learning Needs (ALN) Specific Guidance

There is a wide spectrum of additional learning needs (ALN) and many pupils have interrelated needs. The ALN Code for Wales describes four broad areas of need as below.

Text in italics points to the possible environmental implications of these needs.

Communication and interaction

Some children and young people might experience difficulty in one, some or all aspects of speech, language and communication. This area of need may encompass children and young people with speech and language delay, impairments or disorders, specific learning difficulties, such as dyslexia and dyspraxia, hearing impairment and those who demonstrate features within the autistic spectrum; it may also encompass some children and young people with moderate, severe or profound learning difficulties. The range of need will include those for whom language and communication difficulties are the result of permanent sensory or physical impairment.

Some pupils with autism need an easily understood environment with a low level of distraction and sensory stimulus to reduce anxiety or distress. They may need a safe place to calm down and may benefit from having access to a safe, sheltered, outdoor space.

Cognition and learning

Some children and young people who demonstrate features of moderate, severe or profound learning difficulties or specific learning difficulties, such as dyslexia or dyspraxia, may require specific programmes to aid progress in cognition and learning. Some of these children and young people may have associated sensory, physical and behavioural difficulties.

Pupils who have these needs may need additional support in the classroom or in a smaller quiet place. They may use specialist equipment.

Behaviour, emotional and social development

Some children and young people will demonstrate features of emotional and behavioural difficulties. They may be withdrawn or isolated, disruptive and disturbing, hyperactive or lacking concentration; they may have underdeveloped social skills; or present challenging behaviours.

Pupils who have these needs may need extra space to move around and to ensure a comfortable distance between themselves and others. They may need to be able to withdraw from their group, possibly to a sheltered outdoor area. Some may take extreme risks or have outbursts and need a safe place to calm down. Some may need behaviour support or counselling which should take place in a quiet supportive environment

Sensory and/or physical needs

This area of need includes the wide spectrum of sensory, multi-sensory and physical difficulties. The sensory range extends from profound and permanent deafness or visual impairment through to lesser levels of loss, which may only be temporary. Physical impairments may arise from physical, neurological or metabolic causes that only require appropriate access to educational facilities and equipment; others may lead to more complex learning and social needs; some children and young people will have multi-sensory difficulties some with associated physical difficulties.

Some pupils with sensory impairments may need extra space and additional 'clues' to help them negotiate their environment independently.

Pupils with physical disabilities may use mobility aids including wheelchairs, standing frames, or horizontal learning stations, all of which can be bulky and require storage. Whether they are able to move around independently or need support, there should be sufficient space for them to travel alongside their friends. Accessible personal care facilities should be conveniently sited. Many will need specialist support (for example mobility training or physiotherapy).

Types of educational setting

Most pupils with ALN and disabilities are able to attend mainstream schools with schoolbased support (for example those with dyslexia or PD). Some pupils receive additional specialist support on their mainstream school site (see SRP and Units below) and a few attend special schools. Some pupils attend alternative provision because they have nine health or behavioural difficulties that cannot be met at a mainstream school. Some of these pupils also have ALN. These settings are described further below.

Special schools

All pupils in special schools have Individual Development plans (ISPs) or statements of ALN. The number of places in a special school usually ranges from around 50 (often catering for a broad range of needs including pupils with profound and multiple learning difficulties (PMLD)) to over 250 (often for ambulant pupils with moderate learning difficulties); most schools have around 100 pupils. Special schools (especially for non-ambulant pupils) often cater for all ages. Primary schools for pupils with behavioural difficulties are unusual and usually cater for key stage (KS) 2 only. Special schools vary widely in the curriculum and programmes of study they offer, in some the curriculum is mainstream while in others it can be quite different. Life skills and developing personal independence plays a big part.

Although special schools cater for varying needs that can change over time, they can be divided broadly into those that cater predominantly for ambulant pupils and those that are specifically set up to accommodate pupils with PD and PMLD (as well as other needs). For simplicity this document refers to the first as 'ambulant' special schools and the second as 'non-ambulant' special schools.

Ambulant special schools typically provide for one of the following:

• a range of predominantly ambulant needs (moderate learning difficulties (MLD), severe learning difficulties (SLD) and autism)with pupils taught together in groups of 8 to 12; there are often a few places for pupils with greater needs such as those associated with severe autism or social emotional and mental health difficulties who are taught in smaller groups with a higher staff to pupil ratio;

• severe social emotional and mental health (SEMH) difficulties where pupils require greater personal space to avoid conflict and have the capability to follow a curriculum similar to mainstream; pupils are taught in groups of 6 to 8;

• significant difficulties associated with autism (ASD) where pupils require greater personal space and high levels of adult supervision, pupils are taught in groups of 6 to 8.

Non-ambulant special schools typically provide for one of the following:

- a broad range of needs with 10% to 60% of pupils being non-ambulant (requiring specialist equipment and facilities); pupils with MLD, SLD/autism are taught in groups of 8 to 10 and pupils with PMLD or severe autism are taught in groups of 4 to 6;
- a broad range of needs with 60% to 90%+ of pupils being non-ambulant (requiring specialist equipment and facilities); all pupils are taught in groups of 4 to 6.

Alternative provision (AP)

Alternative provision (AP) AP accommodates pupils who cannot attend mainstream school for a variety of reasons including exclusion, or mental or physical health difficulties. AP provides an alternative education which is often on a temporary basis until a pupil can return to mainstream education or move to a special school, although for some pupils it may be a longer term solution. Pupils sometimes also attend AP part time, spending the rest of their time at a nearby school, further education (FE) college or other provider to use specialist facilities such as for vocational courses.

Although the range of needs catered for in AP varies widely they often fall into one of the following types:

- pupils with mental and physical health difficulties including anorexia, obesity or school-phobia;
- pupils with behavioural, emotional or social difficulties who may have been excluded from their mainstream school (severe difficulties of this type may be accommodated in a special school).

AP may also provide for pregnant pupils.

For simplicity this document refers to AP that is primarily set up for pupils with health difficulties as AP (health) and AP primarily accommodating pupils with behavioural, emotional or social difficulties as AP (behaviour).

Specially resourced provision (SRP) and Designated Units (Units)

SRP and Units provide additional specialist facilities on a mainstream school site for a small number of pupils, typically less than 30, who usually have an IDP or statements of special need. SRP and Units tend to provide for a specific need such as speech, language and communication needs (SLCN), hearing or visual impairment (HI/ VI) or autism. Less commonly they may provide for pupils with a physical disability (PD) or behavioural difficulty. SRP and Units vary widely, often reflecting the local approach to inclusion.

There is a difference between SRP and Units. In SRP pupils spend most of their time (usually well over 50% of their timetable) in mainstream classes. They only attend the SRP facilities for individual support, to learn a specific skill (for example braille for VI pupils), to receive medical or therapeutic support (for PD pupils) or to access specialist equipment. The facilities can be in a suite or dispersed throughout the school. Pupils in a Unit spend the majority of their time there, only attending mainstream classes for a few lessons, such as PE, for assembly or for lunch. Pupils in both settings are on the roll of the mainstream school.

In practice the difference between SRP and a Unit is often less defined so that careful briefing at the earliest stage is essential to ensure that a suitable range of spaces is provided. In both SRP and Units the facilities are additional to those normally provided in a mainstream school to support special needs, such as ALN resource room.

How ALN impacts on area

Special schools, AP, SRP and Units all require more area per pupil place than mainstream schools because:

- pupils are taught in smaller groups, averaging around 8 to 12 and as low as 4 to 6 where pupils need extensive support;
- staff to pupil ratios are higher, particularly in a special school where 2 or 3 teaching assistants or support staff work alongside the teacher or give support in a separate space;
- multi-agency meetings are common during the school day requiring confidential meeting rooms (these can involve several people in special schools). These areas can also be used for the delivery of individual intervention and therapy sessions

The following apply in some settings:

- pupils who use wheelchairs or other mobility aids need more movement space and space to store their equipment when not in use (some pupils may use up to three different pieces of mobility equipment during the school day for medical and functional reasons)
- disabled pupils need facilities for physiotherapy (which can require specialist equipment such as a hoist) as well as specialist changing facilities;
- pupils who are easily agitated often need more personal space around them;
- pupils in special schools and AP need individual teaching, counselling and therapy, requiring a range of small spaces;
- visiting professionals, such as speech and language therapists, need access to a desk space and storage in addition to the teaching areas.

Applying the formulae to different settings

The formulae for special schools, AP, SRP and Units are divided into broad types, for simplicity, that reflect their area needs. A formula range is given for each type to reflect the variation in schools. This is explained below and summarised on page 58.

Special schools. The ambulant formulae apply to any special school where there is little or no need for specialist physiotherapy, medical or personal care facilities (although there may be a small number of pupils using mobility aids). The non-ambulant formulae apply to a special school with a range of such facilities to meet the needs of pupils with PD and/or PMLD.

AP. The AP (health) formulae apply where pupils have mental or physical health difficulties. The AP (behaviour) formulae apply where pupils have behavioural difficulties. If the AP accommodates pupils with a wide range of difficulties including behavioural the AP (behaviour) formulae will apply

SRP. The SRP (ambulant) formulae apply to any SRP except where provision is specifically intended for pupils with PD. SRP (PD) refers to provision where pupils learn alongside their mainstream peers, only attending the SRP to use medical or therapy facilities. It is assumed that pupils with PMLD require more extensive facilities than would be provided in SRP.

Units. The Unit (ambulant) formulae apply to any Unit except one designed specifically for ambulant pupils with autism for which the Unit (ambulant - ASD) formulae apply. Units for SEMH are rare but where they occur the formulae for Unit (ambulant - ASD) can be used. Although Units for pupils with PMLD/PD are very rare refer to Appendix 1 for formulae for a Unit (non-ambulant). The formulae for both SRP and Units represent the area that is additional to that provided in the main school because pupils spend some time in each place.

Setting	Typical pupil needs	Formulae to use
Special Schools	A range including MLD, SLD, autism (MLD/SLD/ASD)	Special school (ambulant)
	Sever social emotional and mental health difficulties (SEMH)	
	Severe autism (ASD)	
	A broad range including MLD, SLD, autism, PMLD with 10% to 60% non-ambulant	Special school (non-ambulant)
	A broad range including MLD, SLD, autism, PMLD, with 50% to 90% non-ambulant	
AP	Mental and physical health difficulties	AP (health)
	Behavioural, emotional or social difficulties	AP (behaviour)
	Wide range of difficulties including behavioural	AP (behaviour)
SRP	HI, SLCN	SRP (ambulant)
	VI	
	PD	SRP (PD)
Unit	HI, SLCN	Unit (ambulant)
	VI	
	Autism (ASD)	Unit (ambulant – ASD)
	A broad range including MLD, SLD, autism, PMLD, with 10% to 60% non-ambulant	Unit (non-ambulant)

Table 8
Table showing how the formulae apply to typical educational settings

Existing buildings

This guidance is generally written to apply to new buildings for special schools, AP, SRP and Units. However most of the details can be used when considering existing buildings, whether they are to be remodelled or unaltered. Existing AP has often been remodelled from buildings that have had other uses in the past.

When calculating the total area needed for a setting that includes existing buildings the following apply.

1 When adding pupil places to existing special schools or AP, the 'base' areas in the net and gross area formulae are often already provided, for instance in the form of the main hall, head's office, staff room and central stores, so only the area per pupil place for the additional places would be needed. This would cover not only additional classrooms but also the associated support spaces, listed in this guidance, needed to accommodate the extra pupils.

2 The total net area of all buildings available to the setting should be included whether owned or maintained by the local authority, governing body or trustees. Buildings owned and maintained by others but available for pupils or staff in the setting to use for at least 80% of any normal school week (such as indoor sports facilities or a hydrotherapy pool with a 'joint use agreement') should also be included.

3 The different categories of space in the net area, discussed below, may need specific attributes that can only be provided by certain buildings: for example a hall would need a large volume.

4 Existing rooms may be outside the recommended sizing guidance for the type of space. If existing rooms are below the recommended minimum, the range of activities will be reduced; in many cases a smaller teaching space will pose a health and safety risk (for example in a practical room). In these instances group sizes should be reduced or spaces combined to create larger rooms.

5 If existing rooms are above the recommended area, allowance needs to be made for a 'fit factor' such that the recommended net and gross areas are increased by 10 - 15%. Where the net and gross areas are more than 15% higher than the recommended figures, remodelling may be more economical, for instance to divide oversized spaces into more suitable sizes. Remodelling to achieve a better fit may be more difficult in listed buildings if alterations are restricted; in these cases the total area could be well in excess of the recommended range for the required spaces, and the 'fit factor' may be as high as 25%, or perhaps more.

6 Non-net area such as circulation in an existing building may be above the minimum that could be achieved in a new building.

The formula in appendix can be used to calculate the group size that can be accommodated in an existing space, depending on the size and type of space and activities.

Other situations

Co-location

A special school sharing a site with a mainstream school allows pupils to interact and can give special school pupils access to a wider range of facilities. However the special school's teaching area should remain the same to ensure pupils have guaranteed access to their curriculum. Some non-teaching spaces such as the commercial kitchen and premises manager's office can be shared resulting in an area reduction of up to around $75m^2$. However, co-location may not always be appropriate for AP where, for example, it may be more effective for pupils with behavioural difficulties to be educated away from their peers.

Split sites

A special school or AP is occasionally on more than one site; for example where AP has a primary and a secondary department or where two special schools have combined to form one establishment. Where a significant part of a school or AP is provided in buildings on more than one site extra area may be needed, to allow for the replication of key resources. This is unlikely to be more than $75m^2$ gross, for administrative and kitchen facilities, depending on the distance between sites and the facilities on each site. Distance between sites is likely to be more of an issue for a special school than for a mainstream school.

Extensive facilities

A special school or AP that offers extensive vocational learning on site that involves large-scale practical activities such as motor vehicle maintenance may need extra area. Such facilities are most economical if made available to other local schools or AP.

Part A: The buildings

Following the approach taken for Primary and Secondary provision, the first part of this section sets out how to establish the specific floor area requirements for primary and secondary provision in special schools, AP, SRP and Units. It is in three sections:

- Net area which is the usable area and comprises basic teaching area; halls, PE, dining and social spaces; learning resource areas; staff and administration; and storage;
- Non-net area which supports the functioning of the building, and includes toilets and personal care facilities, commercial kitchens, circulation, plant and internal walls;
- Supplementary area (including net and non-net), such as a community health or counselling centre.

Not all categories of space apply to all settings; this is shown on table 9, page 61.

The gross area, or gross internal floor area, of the building(s) is the total of the net and non-net area. It is important that the non-net area increases in line with any increase in net area. Generally, the gross area of new buildings will be as follows, depending on the provision of areas such as circulation, hygiene rooms or (in special schools and AP) the commercial kitchen:

- Special schools for ambulant pupils: 145% to 155% of the net area;
- Special schools for non-ambulant pupils: 153% to 162% of the net area;
- AP: 140% to 160% of the net area depending on the needs accommodated;
- SRP: 139% to 143% of the net area, or 155% to 170% for non-ambulant pupils, because a hygiene room and wider corridors are needed;
- Units: 130% to 140% of the net area, or 138% to 145% for pupils with autism (ASD) where for example wider corridors are needed.

In existing buildings the proportion of gross to net area may be higher - as much as 175% in a special school or AP.

In a special school for non-ambulant pupils with PMLD the net area required for medical and therapy rooms and the non-net area required for toilet and hygiene facilities will be significantly higher than in other settings, but these facilities are essential to supporting teaching and learning at the school. There should be enough flexibility to allow some increase in pupils with these needs.

Net Area

Categories of space	Special schools	AP	SRP	Units
Basic Teaching	🟩	🟩	🟥	🟩
Halls and PE	🟩	🟩	🟥	🟥
Dining and social	🟩	🟩	🟩	🟩
Learning resource areas	🟩	🟩	🟩	🟩
Staff and administration	🟩	🟩	🟩	🟩
Storage	🟩	🟩	🟩	🟩

Non-net Area

Categories of space	Special schools	AP	SRP	Units
Toilets and personal care	🟩	🟩	🟩	🟩
Commercial kitchen facilities	🟩	🟩	🟥	🟩
Circulation, plant and internal walls	🟩	🟩	🟩	🟩

Table 9
Table showing categories of space that make up gross and net area in special schools, AP, SRP and Units

Net area

The net area is the total area of all usable spaces, both teaching and non-teaching. It includes everything except toilets and personal care facilities, circulation, boiler and plant rooms, commercial kitchens, and the area occupied by internal walls.

Net area is made up of spaces (usually enclosed rooms) within five categories of space:

- basic teaching (not applicable to SRP);
- halls, PE, dining and social (halls and PE are not applicable to SRP or Units);
- learning resource areas;
- staff and administration;
- storage.

Where categories are not required in SRP and Units because the facilities are provided as part of the main school, it is important that the area provided in the main school allows for those pupils spending some of their time there and for any shared staff facilities such as a central staff room. There will be less distinction between some categories in SRP and Units because there needs to be flexible use of space. In SRP, for example, group rooms (in the learning resource area category) may be used at lunchtime by those pupils not wishing to go to the main school dining room. Similarly, a staff office (in the staff and administration category) may have additional use for individual learning support (subject to securing confidential material).

The formulae identify the recommended minimum and maximum total net area, and the likely range of gross area needed based on the proportion of net to gross.

To achieve the recommended minimum total net area, which is greater than the sum of the minimum net areas for each category, the area of each category of space should average around the middle of the recommended range. Where more space is required for some categories, such that the area falls in the upper half of the range, less must be allocated to other categories to stay within the minimum recommended overall net area. A net area near the top of the recommend range may be needed, but even if the maximum recommended net area can be provided, it is unlikely that all categories of space will be able to be at the top of each zone, so providers will always need to decide their priorities.

It is important to note that:

- the total area for each category should be at least the minimum recommended to allow for the core functions needed to suit the capacity of the setting, an area greater than the minimum but within the zone will usually be preferred for each category;
- anything lower than the minimum recommended area for a category could compromise the space provided in it;
- a total net area higher than the minimum may be needed where there are existing buildings with several rooms larger than the minimum size.

When the recommended minima for each category of space are added together the total area (the 'sum of minima') will be less than the overall recommended minimum net area. This difference is the 'float' that can be used to enhance some areas, depending on the priorities of the individual setting, for example providing larger classrooms or an additional therapy room.

Net area in different settings

Special schools are far more diverse than mainstream schools. The provision can vary by location, for example an urban local authority may have a few schools each providing for different needs while a rural local authority may have one or two schools providing for a wide range of needs. There are also different approaches to teaching pupils with special needs; this is particularly the case with autism. A total net area higher than the minimum (up to the maximum) may be needed in some cases. It is important to establish a school's approach at an early stage, for example:

- ambulant special schools will need a total net area nearer the maximum if the proportion of pupils with severe autism, requiring maximum support, is very high;
- non-ambulant special schools will need a total net area near the maximum if the proportion of pupil with PMLD, requiring specialist spaces, is high (say over 75%).

Special schools also tend to cater for different pupil needs over time and it is important to provide sufficient flexibility to allow for possible change. For instance, rooms large enough for groups of at least twelve are generally recommended in special schools for MLD/SLD even though the average group size may be around ten. AP also varies and it is important to establish the local arrangements at an early stage, for example:

- AP with joint arrangements with local schools may require a total net area nearer the minimum;
- AP with extensive on-site vocational provision may require a total net area nearer the maximum.

Where AP provides a full curriculum to pupils who spend all their time there and do not return to school, the areas may need to be closer to the recommendations for a special school to ensure adequate and suitable accommodation.

SRP and Units vary depending on pupil needs and how much time pupils spend in the main school classrooms, for example:

- In SRP where pupils spend most of their time in mainstream classes and need minimal specialist facilities a total net area nearer the minimum may be required;
- SRP and Units providing for a broad range of special needs each requiring specialist facilities may require a total net area nearer the maximum.

Where the number of places in a Unit increases towards the size of a small special school (i.e. 40 to 50 places), the areas may need to be closer to those recommended for a special school to ensure adequate and suitable accommodation.

This section gives guidance on the spaces required for all types of educational setting within each of the five categories of space within the net area. For each space, the broad activities to be accommodated are noted and the space, with appropriate fittings, furniture and equipment (FF&E), should be designed to suit these.

Basic teaching

Basic teaching comprises all the teaching spaces (except halls and PE spaces) needed for the curriculum offered. It does not include learning spaces such as libraries and small group rooms. The recommended area range for the total basic teaching area can be divided up in many different ways. SRP does not require basic teaching area as associated with the mainstream provision.

Figure 17 shows the zones for basic teaching spaces for any age in all educational settings

Tables 10 to 14 show how the recommended area zones relate to pupils' needs. In some cases only the upper half of the zone applies to a space. Generally the minimum recommended area is at the bottom of a zone but where the upper part of a zone is indicated the minimum area will be in the middle of the zone.

Tables 13 and 14 show the most common types of basic teaching spaces and their recommended standard sizes, based on typical group sizes for primary and secondary schools, respectively. The recommended standard size will give the flexibility to accommodate a range of relevant activities and to allow for variation in FF&E layouts. In a classroom for non-ambulant pupils the standard size will provide space for pupils who use wheelchairs or larger mobility aids.

An area below the recommended standard size will restrict the range of activities that can take place and the possible variations in room layout. An area above the recommended minimum but below the recommended standard size will have limitations, for example:

- in a classroom, it will limit the ability to create different settings such as a sensory corner for pupils with PMLD or a soft seating corner for pupils with MLD;
- in a practical space, it will not allow for specialist furniture or equipment such as a screen printing table in an art room; it will limit the number of cookers in a foodroom;
- in a music space, it will limit the number a nd type of large instruments that can be kept in the room (such as a drum kit or piano);
- in any basic teaching space where there are non-ambulant pupils, it will restrict movement within the space and reduce the school or Unit's flexibility to increase its intake of non-ambulant pupils in the future.

An area below the recommended minimum area is not recommended and could pose a health and safety risk, particularly in a practical room. Where there are non-ambulant pupils movement space would be inadequate.

In an existing building, a space of the recommended standard size may not be possible. The maximum recommended group size would need to be reduced to avoid a health and safety risk or a restriction in the movement of non-ambulant pupils. Alternatively, rooms may be remodelled or combined to create a larger space. If an existing space has an irregular or inefficiently proportioned shape an area above the recommended minimum will be required.

Each zone allows for variations in size depending on the curriculum, the range of special needs or disability to be accommodated and the staff: pupil ratio. Whatever arrangement is chosen, the basic teaching area should accommodate all the types of activities that need to take place in this area and the associated FF&E.

Basic teaching in special schools and AP

Basic teaching area in special schools or AP includes:

- classrooms;
- practical rooms;
- performance spaces

The size of these spaces will depend on the range of needs accommodated and on the staff: pupil ratio. One child with a wheelchair and/or mobility aids may need as much space as three ambulant pupils. One child with learning aids and a teaching assistant may need the same space as two non-disabled pupils.

Figure 17: Zones for Basic Teaching Spaces
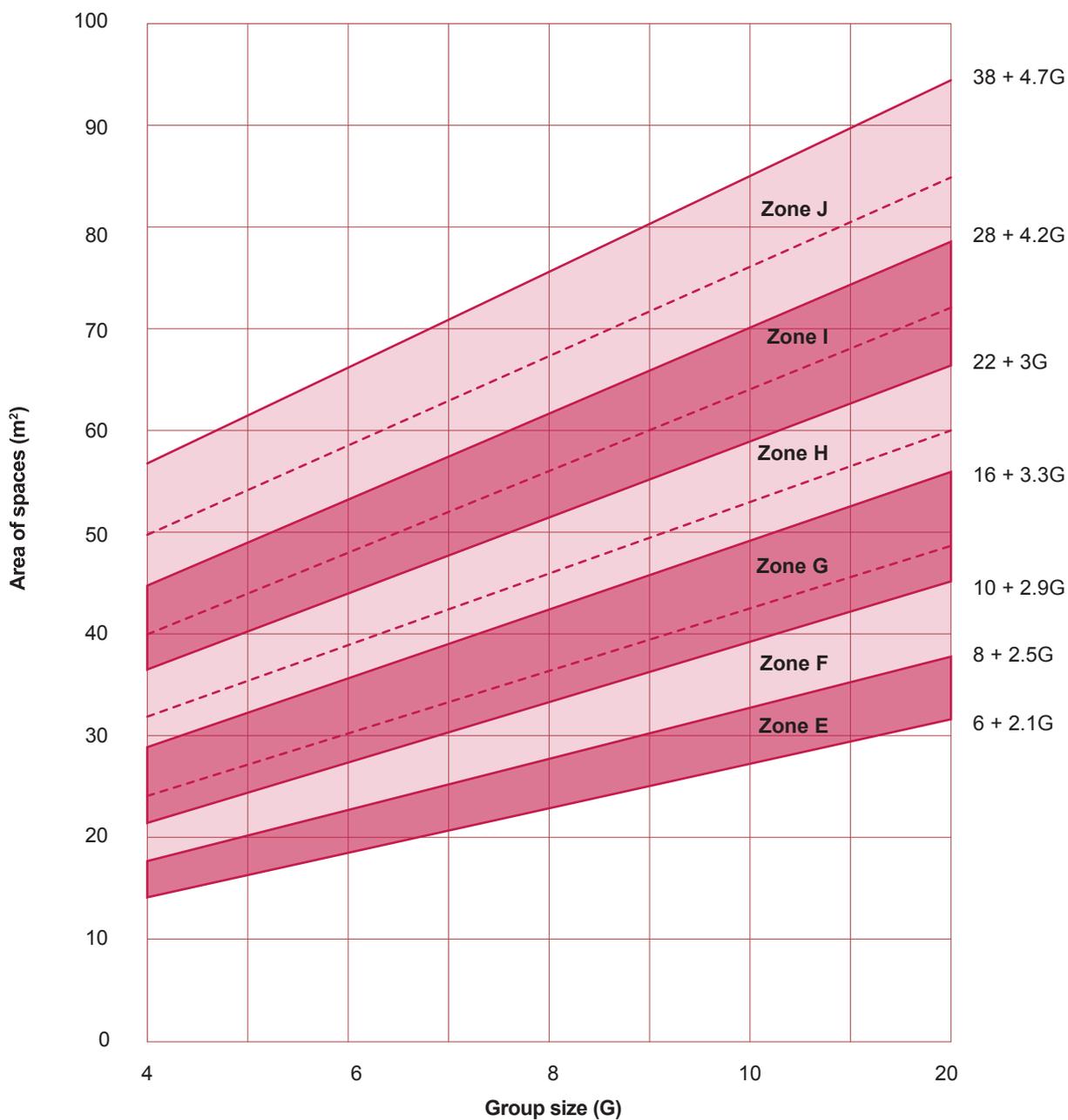
Classrooms

At primary level classrooms should be provided with water and drainage for light practical work. The exception is where the room area is at the bottom of the recommended range and practical activities can take place in a separate specialist space. At secondary level the provision will depend on pupils' needs; classrooms will sometimes be only for general teaching with practical activities accommodated in specialist spaces but for some special needs, particularly for pupils with PMLD/SLD, most activities will happen in one space, requiring water and drainage. Drinking water will be required for primary and secondary settings if pupils are provided with refreshments in the classroom.

For primary provision the basic teaching area should include one classroom for every class group. For secondary provision the number of classrooms will depend on the curriculum and group sizes. In AP and large special schools, this should be determined using a simple curriculum analysis. In some secondary special schools there will be one classroom for every class group, in a similar way to primary.

Tables 10, 11 and 12 show shows the relationship between pupils' needs, classroom type and recommended area zone; it also shows typical settings for these spaces. The table applies to both primary and secondary provision.

Where a special school accommodates a broad range of needs there may be classrooms of different sizes. However, providing too much variation in room size can limit the school's flexibility to accommodate changing needs. Nursery classes often accommodate a broad range of needs.

In any special school or AP classrooms should be in a suite according to the setting's requirements; this may be by key stage or type of special need (for example a suite for pupils with severe autism in a special school accommodating a broad range of needs). There should be easy access to small group rooms (included in the Learning resource area category) and easy and sometimes direct access to 'walk-in' store(s).

ICT-rich classrooms

With the increasing use of laptops and tablet computers, the need for ICT-rooms as a bookable resource has diminished. However, there may still be a need for one or more ICT-rich classrooms, equipped with fixed desktop computers for each workstation, in special schools and secondary-level AP, see figure 17. An ICT-rich classroom may be combined with a library (see Learning resource areas). In some settings pupils need a dedicated workspace because their equipment is adapted for a particular need, such as visual impairment or physical disability.

Practical teaching spaces

Practical teaching spaces will generally have water and drainage; they will often have ICT. For secondary spaces there may also be gas services and chemical-resistant finishes. All spaces should have 'walk-in' store(s) accessed from the room, for resources and work in progress.

Primary practical teaching spaces

A special school or AP with only primary-age pupils should have a space for a cooker either in a food bay or in a specialist food room. A specialist room will be an enclosed space (usually for half class groups) with appropriate finishes, a sink and cooker, often of adjustable height, and fridge. In a special school or AP with primary and secondary-age places, the secondary-level food room can be used by older primary pupils.

A primary-only special school or AP may also include a practical space for science, art and design; an enclosed room (usually for half class groups) with appropriate services and finishes. This would only be required in a primary-only setting where the classrooms are in the bottom half of the recommended area zone and therefore unable to accommodate practical activities.

Typical setting	Activities and pupils' needs	Room type	Zone
AP	Ambulant pupils do hands-on practical activities with minimal support; eg pupils with health difficulties and no associated learning difficulties	Primary practical room (health) Primary food room (health)	F
	Ambulant pupils do hands-on practical activities with minimal support and may need more 'personal' space; eg pupils with behavioural difficulties	Primary practical room (behaviour) Primary food room (behaviour)	G
Special school	Ambulant pupils do hands-on practical activities with some support; eg pupils with MLD, SLD or autism	Primary practical room (ambulant) Primary food room (ambulant)	Upper G
	Ambulant pupils do hands-on practical activities with minimal support and require more 'personal' space around them; eg pupils with severe SEMH	Primary practical room (severe SEMH) Primary food room (severe SEMH)	H
	Ambulant and non-ambulant pupils do a range of practical tasks, some use wheelchairs; eg pupils with MLD/SLD and PD	Primary practical room (non-ambulant) Primary food room (non-ambulant)	H

Table 10
Primary Practical Teaching Spaces

Secondary practical teaching spaces

The number of secondary practical teaching spaces in a special school or AP will depend on the curriculum and pupils' needs. All settings will have as a minimum:

• a food room (for food technology and/or life skills, depending on pupils' needs);
• a room for science activities, in some special schools this may be a multi-purpose practical space.

Most special schools and AP will have in addition:

• at least one further practical space, the number and type to meet pupil numbers and curriculum need; there may be spaces for art, art and design, design and technology (DT), health and beauty, car maintenance or construction.

As the number of practical spaces is less than in a mainstream school, these spaces are generally grouped into a suite and located for easy access from classrooms.

The size of a secondary practical space will depend on a number of factors relating to pupils' needs: staff: pupil ratio, the activities taking place, the range of equipment needed and the amount of space needed around furniture and equipment. It is particularly important that there is sufficient space for pupils (including those using wheelchairs) to circulate with ease and to participate in all appropriate activities, including gathering around for presentations or demonstrations and moving safely around equipment and machines. Allowance should also be made for pupils who need more 'personal' space around them or hearing impaired pupils who may not hear an instruction when using a machine or piece of equipment. A well-designed room layout is an important factor in ensuring safety and functionality.

Figures 18 and 19 give recommended zones for different pupil needs. Heavy practical spaces (those with large fixed machinery or equipment) or spaces accommodating a wide range of practical activities tend to be in a higher zone than light practical spaces, such as those for science or art.

Generally, the following apply to secondary-age pupils in a special school or AP; settings are very unlikely to have all these spaces.

Light practical teaching spaces are serviced with water and drainage but do not have large fixed machinery or equipment. They include:

• for science, a room similar to a classroom with water and drainage or one equipped with laboratory sinks and gas taps similarly to a mainstream school, depending on pupils' needs;
• for art, a room with water and drainage where pupils work in a range of media according to their needs, with space for the local storage and display of finished work (a combined art and design room with a smaller range of machines than in a dedicated DT workshop can be a more effective use of space);
• for hair and beauty, typically a room with facilities for hair washing, beauty treatments and to role play reception (zones for science can be used as a guide).

A non-ambulant special school will often have a multi-purpose light practical space for art, science and design activities.

Heavy Practical spaces will have fixed equipment (such as a lathe or cookers), very resistant finishes, heavy electrical loads and possibly some specialist extraction. They include:

- for food technology, a space for pupils to be as involved as possible in preparing and cooking food and watching cookery demonstrations (the same room may also be used for life skills such as learning to make refreshments and to use a washing machine, alternatively life skills may be taught in a domestic style kitchen included in Learning resource areas);

- for design and technology (DT), a space where pupils work with resistant materials, graphics products and possibly textiles, if there are large floor-mounted machines the minimum in the zone would limit the range of specialist equipment;

- for vehicle maintenance, a DT workshop can be used for ambulant pupils to work on vehicle parts (but if whole vehicles are being worked on a very large space will be required which may be outdoors in a covered area);

- for construction, a workshop where ambulant pupils take part in a limited range of activities such as painting, decorating and brickwork (but for more extensive work a very large space will be required some of which may be outdoors in a covered area);

- for fitness/ exercise, a room with machines of varying types and sizes to suit pupils' needs, the size of the space will depend on the range of equipment and how much personal space pupils need around them, specialist equipment for non ambulant pupils is likely to require more space.

Typical setting	Activities and pupils' needs	Room type	Zone
AP	Ambulant pupils work to a mainstream curriculum with minimal support; eg pupils with health difficulties and no associated learning difficulties	Art room (health) Science studio (health)	Upper G
	Ambulant pupils work to a mainstream curriculum with minimum additional support, some need more 'personal' space; eg pupils with behavioural difficulties	Art room (behaviour) Science studio (behaviour)	H
Special school	Ambulant pupils do simple practical tasks with additional support; eg pupils with MLD, SLD or autism	Art room (ambulant) Science studio (ambulant)	H
	Ambulant pupils work to a mainstream curriculum with minimal support but require more 'personal' space; eg pupils with severe SEMH	Art room (severe SEMH) Science studio (severe SEMH)	I
	Ambulant and non-ambulant pupils do a range of practical tasks; some use wheelchairs; eg pupils with MLD/SLD and PD	Multi-purpose practical (non-ambulant)	J

Table 11
Secondary Practical Teaching Spaces

Typical setting	Activities and pupils' needs	Room type	Zone
AP	Ambulant pupils work to a mainstream curriculum with minimal support; eg pupils with health difficulties and no associated learning difficulties	DT workshop (health) Art and design room (health) Secondary food room (health)	H
	Ambulant pupils work to a mainstream curriculum with minimum additional support, some need more 'personal' space; eg pupils with behavioural difficulties	DT workshop (behaviour) Secondary food room (behaviour)	I
Special school	Ambulant pupils do simple practical tasks with additional support; eg pupils with MLD, SLD or autism	DT workshop (ambulant) Art and design room (ambulant) Secondary food room (ambulant)	Upper I
	Ambulant pupils work to a mainstream curriculum with minimal support but require more 'personal' space; eg pupils with severe SEMH	DT workshop (severe SEMH) Art and design room (severe SEMH) Secondary food room (severe SEMH)	J
	Ambulant and non-ambulant pupils do a range of practical tasks; some use wheelchairs; eg pupils with MLD/SLD and PD	Art and design room (non-ambulant) Secondary food room (non-ambulant).	Upper J

Table 12
Primary practical spaces - zones related to pupils' needs

Performance teaching spaces

Music and drama can take place in a classroom, a specialist music or drama space or in a hall. A hall can be used for performances to audiences larger than the class group. All special schools or AP should have a room with a suitable acoustic environment to accommodate traditional music making, electronic music and, where relevant, music therapy. In some special schools this space will also be equipped with interactive ICT, sound beam or resonance boards for use in music therapy.

Generally the zones for classrooms apply to a specialist music room in a special school or AP although the room layout will be different. A combined music/drama room will be larger to allow a clear space of sufficient size to be created. A clear height of 2.7m to 3.5m will create a reasonable volume for good sound quality and should be sufficient for simple stage lighting and ceiling-mounted fittings.

A recording room with a window onto the music room may be provided in a secondary special school or AP (10m^2 to 15m^2 or 15m^2 to 20m^2 for wheelchair users), see Learning resource areas. Secure storage for musical instruments and other equipment should be easy to access (see Storage).

Basic teaching in Units

In a Unit the basic teaching area will vary depending on the needs of the pupils and the amount of time pupils spend in the main school but all Units should include classrooms for (typically) 6 to 8 pupils. Basic teaching in a Unit may also include:

- a multi-purpose practical space for science and/or design and technology;
- a space where pupils can be taught life skills, this may be in a food room but is more likely to be in a multi-purpose space also used for independent learning, meetings and for dining at lunch time (see Learning resource areas).

The zones recommended for basic teaching spaces in special schools will generally apply to the equivalent spaces in a Unit accommodating the same needs.

There should be easy access to small group rooms (included in the Learning resource areas category) and store rooms (see Storage).

SRP will not have any basic teaching area because pupils have their lessons in the main school, only coming to the SRP to use learning resource areas such as a group room or life-skills kitchen (see Learning resource areas).

Zone	Room type	Typical setting	Recommended area range for typica group size	Recommended standard size within range
H	Nursery playroom (ambulant)	Special school, Unit	49-59m² for 10	55m²
Upper J	Nursery playroom (non-ambulant)		58-66m² for 6	62m²
H	Reception classroom (ambulant)		49-59m² for 10	55m²
Upper J	Reception classroom (non-ambulant)		58-66m² for 6	62m²
Upper G	Primary classroom (ambulant)		49-56m² for 12	55m²
Upper J	Primary classroom (non-ambulant)		58-66m² for 6	62m²
H	Primary classroom (severe SEMH)		42-52m² for 8	48m²
I	Primary classroom (severe autism)		44-53m² for 6	48m²
G	Primary practical room (ambulant)	Special school (possibly Unit)	22-29m² for 4	27m²
H	Primary practical room (non-ambulant)		23-29m² for 2	27m²
G	Primary food room (ambulant)		22-29m² for 4	27m²
H	Primary food room (non-ambulant)		23-29m² for 2	27m²
Upper G	Primary music room (ambulant)		49-56m² for 12	55m²
Upper J	Primary music room (non-ambulant)		58-66m² for 6	62m²
Upper F	Primary classroom (health)	AP	28-33m² for 8	32m²
Upper G	Primary classroom (behaviour)		37-42m² for 8	41m²

Table 13
Typical primary teaching spaces (basic teaching area) and respective zones.

Zone	Room type	Typical setting	Recommended area range for typica group size	Recommended standard size within range
Upper G	Secondary classroom (ambulant)	Special school, Unit	49-56m² for 12	55m²
Upper J	Secondary classroom (non-ambulant)		58-66m² for 6	62m²
H	Secondary classroom (severe SEMH)		42-52m² for 8	48m²
H	Secondary classroom (severe autism)		44-53m² for 6	48m²
H	Science studio (ambulant)	Special school, (possibly Unit)	56-66m² for 12	62m²
I	Science studio (severe SEMH)		52-62m² for 8	58m²
H	Art room (ambulant)		56-66m² for 12	62m²
I	Art room (severe SEMH)		52-62m² for 8	58m²
Upper I	Secondary food room (ambulant)		72-78m² for 12	76m²
Upper J	Secondary food room (non-ambulant)		58-66m² for 6	62m²
J	Secondary food room (severe SEMH)		62-75m² for 8	62m²
Upper J	Multi-purpose practical (non-ambulant)		58-66m² for 6	62m²
Upper I	DT workshop (ambulant)	Special school	72-78m² for 12	76m²
Upper J	DT workshop (severe SEMH)		62-75m² for 8	69m²
Upper F	Secondary classroom (health)	AP	28-33m² for 8	32m²
Upper G	Secondary classroom (behaviour)		37-42m² for 8	41m²
Upper G	Art room (health)		37-42m² for 8	41m²
H	Art room (behaviour)		42-52m² for 8	41m²
Upper G	Science studio (health)		37-42m² for 8	41m²
H	Science studio (behaviour)		42-52m² for 8	48m²
H	Secondary food room (health)		42-52m² for 8	48m²
I	Secondary food room (behaviour)		52-62m² for 8	58m²
H	DT workshop (health)		42-52m² for 8	48m²
I	DT workshop (behaviour)		52-62m² for 8	58m²

Table 14
Typical secondary teaching spaces (basic teaching area) and respective zones.

Halls, PE, dining and social

This category covers predominantly large spaces for PE and performance, as well as for dining and social activities (for recommended area zones see Appendix 1).

Dining together can be an important occasion for pupils with learning difficulties, as well as pupils with social and emotional difficulties, helping to develop social skills and promote independence. For some it can also be a stressful time and in some settings there may be pupils who require privacy - for example those with severe autism or those who have difficulty eating. Where this is the case some enclosure will be needed to break up the dining space (where provided) and some pupils may prefer to eat in their classroom or in a learning resource area. The option to go outside in the summer is an advantage. A few pupils in special schools or Units (or even in AP) may need to be tubefed; the feed will need to be prepared in hygienic conditions with sterilisation facilities, for example in a medical or nurse's room (see Staff and administration).

Where a dedicated dining room is provided it should allow for:

- tables and chairs for the number of 'covers' (or dining places) and space to access them;
- reasonable space for pupils to queue up to, and in front of, the servery and past checkout facilities (where pupils serve themselves, 'family service' where pupils are served at shared tables is sometimes preferred);
- clearance areas and waste disposal.

The main servery is part of the commercial kitchen area allocation and should be adjacent to the dining area used for hot food diners.

Halls, PE, dining and social in special schools

The recommended minimum total area for the halls, PE, dining and social category (see Appendix 1) can be divided in different ways to suit pupils' needs. But all special schools should accommodate in one or more spaces:

- assemblies (for the whole school in small special schools but key stages in larger schools), examinations (where relevant), public performances, parents' evenings and community events;
- dining;
- PE/ movement.

Most primary-only special schools will have one multi-purpose space for assembly, PE, and dining similarly to a mainstream primary school. If the pupil cohort is such that team games are seldom played and pupils feel uncomfortable dining in a large group, the same area could be divided into two smaller spaces, one for dining and one for PE/movement and assembly; this may occur in a school catering solely for severely autistic pupils.

Ambulant special schools providing secondary provision will usually have two large spaces: either one space for assembly, PE and performance and one space for dining; or one space for PE and one space for assembly, dining, and performance. The minimum recommended area would allow a school to have a minimum hall of 100m^2 and a second space for dining in two sittings.

Non-ambulant special schools providing secondary provision will have either one multi-purpose space or two smaller spaces (one space for assembly, PE and performance and one space for dining). One larger space allows more space for wheelchair users at lunchtime and allows for more space-hungry activities such as trampolining and basketball at other times.

If a multi-purpose space is provided the acoustics will need to be designed to suit a wider range of activities and the hall will need to be cleared of furniture after mealtimes. If there are two spaces, some dining could take place in the hall leaving the dining space for pupils who need the most assistance and time.

A space for PE will need a minimum ceiling height of 4.5m, or 5m where there is trampolining.

Special schools with sixth forms will also have a sixth form social space which may be used for dining (meals taken from the main servery or made locally in a kitchenette) as well as life-skills training. The area recommendations for classrooms can be used as a guide (see figure 17/18); allowance should be made for 50% of pupils being in the room at any one time.

Dining in special schools

The total area of spaces used for dining should allow $1.3m^2$ per 'cover' for ambulant pupils and $3m^2$ to $4m^2$ per 'cover' for non-ambulant pupils. The recommended total areas for halls, PE, dining and social are based on two sittings for ambulant pupils and one sitting for non-ambulant pupils; multiple sittings may not be practical in some special schools.

The time taken to dine must be taken into account when calculating area needs, particularly where pupils require a high level of support. In order to provide an appropriate environment for younger pupils, special schools with both primary and secondary pupils either stagger lunchtime or use two spaces for dining.

In some special schools staff will serve pupils and help them during the meal so it is essential to establish the number of staff likely to be present and to allow for them in the area calculations. There must also be enough space for pupils who use mobility aids to move safely between tables and for those on horizontal learning stations to be accommodated.

Halls, PE, dining and social in AP

AP will usually have a multi-purpose space for assembly, PE and dining. The recommended minimum total area for this category will allow for two lunch sittings; tables would need to be cleared away.

The exception to this is where an AP which accommodates secondary-age pupils with behavioural difficulties has insufficient outdoor space for PE. In these circumstances the recommended minimum total area for this category is higher ($120+0.6Nm^2$) because pupils with behavioural difficulties tend to require more physical activity. This area allows for an assembly / PE space for physical activities such as table tennis or fitness and a space for dining in two sittings. An alternative approach on a restricted site is to use sports spaces at a nearby school or community sports centre, as long as there is safe access and the travel time has a minimal effect on the rest of the curriculum.

Dining in AP

The total area of spaces used for dining in an AP should allow at least 0.9m^2 per 'cover'. The number of covers should be based on the number of pupils predicted to eat lunch in the hall divided by the number of 'sittings' or equivalent (if continuous flow) in the lunch break.

The time taken to dine must be taken into account when calculating area needs. It is important to note that the recommended area for dining is only sufficient if the lunch time available is at least an hour. This may be achieved by a single lunch break for all pupils or by a 'split lunch' break whereby some pupils work while others have a lunch break.

Dining and social in SRP and Units

Spaces for PE and assembly or a dedicated dining space are not required in SRP or Units, the main school spaces will be used where needed. However, there should be a space available for those pupils who are not able to eat in the main school dining space (this may be up to 50% of pupils). An area of 0.9m^2 to 1.3m^2 per 'cover' should be allowed for ambulant pupils, depending on pupils' needs, or 3m^2 to 4m^2 per 'cover' for non-ambulant pupils. This will not be a dedicated space; it will be used for other activities such as independent learning, meetings or learning life skills. See Learning resource areas.

Learning resource areas

Learning resource areas are un-timetabled spaces that are particularly important for special schools, AP, SRP and Units because of the amount of individual learning and therapeutic support pupils need. For recommended area zones see Appendix 1.

Learning resource areas in special schools

The total area for learning resource in any special school should include, such as:

- at least one small group room for every three classrooms (one per classroom for severe autism) to provide quiet, discrete facilities away from the classroom for a pupil to have 'time out' or to work with a teaching assistant, peripatetic teacher or counsellor (zone B for most ambulant pupils, zone C for pupils who need more personal space, zone F for non-ambulant pupils);

- at least one library with a total area of at least 10m^2 plus 0.2m^2 for every pupil place (or the equivalent area added to classrooms if a dispersed provision is more appropriate);

- at least one therapy space for visiting therapists to see pupils and to carry out administrative tasks, 12m^2 for ambulant pupils, 15m^2 for non-ambulant;

- at least one sensory room for light and sound therapy using specialist equipment, to accommodate at least one pupil and one adult (for non-ambulant pupils but dependant on equipment and the school's approach), where there are two sensory rooms one may be a traditional 'dark' room for oneto-one work and one a larger 'immersive' room for small groups.

Additional spaces to suit pupils' particular needs should include:

- for all special schools with ambulant pupils, one quiet/calming room per key stage where one pupil can have 'time out' (for pupils who may need more space around them), some schools prefer a 'bay' close or adjacent to the classroom rather than an enclosed room;

- for all special schools with primary-age pupils, a soft play room for movement therapy on padded surfaces (size will depend on the type of equipment but typically 20m^2 to 25m^2);

- for all special schools with non-ambulant pupils, a physiotherapy room (25m^2 to 30m^2) and a hydrotherapy pool (85m^2), see below.

Additional spaces may include:

- a life-skills kitchen, for learning cooking, washing etc in a domestic environment;

- a soft play room in secondary provision;

- additional therapy rooms for use by outside agencies such as occupational or speech therapists, or nursing staff (some therapy suites also serve other schools);

- a group room to support a group with particular needs;

- support spaces for basic teaching rooms, such as a kiln room or a recording room (where required by the brief).

Physiotherapy

Although some physiotherapy takes place in the classroom all special schools for pupils with PD or PMLD should have a fully equipped physiotherapy room where school staff and visiting therapists treat pupils. This should be fitted out with a couch, a clinical wash hand basin, ceiling mounted H-framed hoist and a curtained or screened changing area.

Hydrotherapy pool

Hydrotherapy is principally for the treatment and exercise of students with physical and/or sensory disabilities. It is done in a small group or on a one-to-one basis with a physiotherapist or another adult, with supervision provided by an out-of-water adult. A warm water pool is larger than a hydrotherapy pool and has a different water temperature but it is cheaper to build and to run and it can provide for hydrotherapy as well as school group recreational activities. If there is a pool close by to which pupils can be taken, for instance in a co-located special school, this provision can be omitted and the area can be reduced to match.

A typical hydrotherapy suite will have:

- a pool of 24m^2 with a surround of 2m to 2.5m wide (to ensure safe movement) and a hoist;
- wet changing areas with direct hoisted access to the pool (see Non-net area);
- a staff changing area;
- a transitional space for pupils to adjust to the difference in temperature between the pool and the rest of the school, this can be part of the changing area.

Learning resource areas in AP

The total area for learning resource in any AP should include:

- at least one small group room for every pair of classrooms to provide quiet, discrete facilities away from the classroom for a small number of pupils to work with a teaching assistant, peripatetic teacher or counsellor, or to have quiet time/ calm down (zone B, typically 10m^2 for up to four pupils);
- at least one therapy space for visiting therapists to see pupils, this can have other use as an office space (around 12m^2).

Figure 18 shows the zones of recommended area that suit various types of small space within learning resource area.

Figure 18: Zones for Basic Teaching Spaces
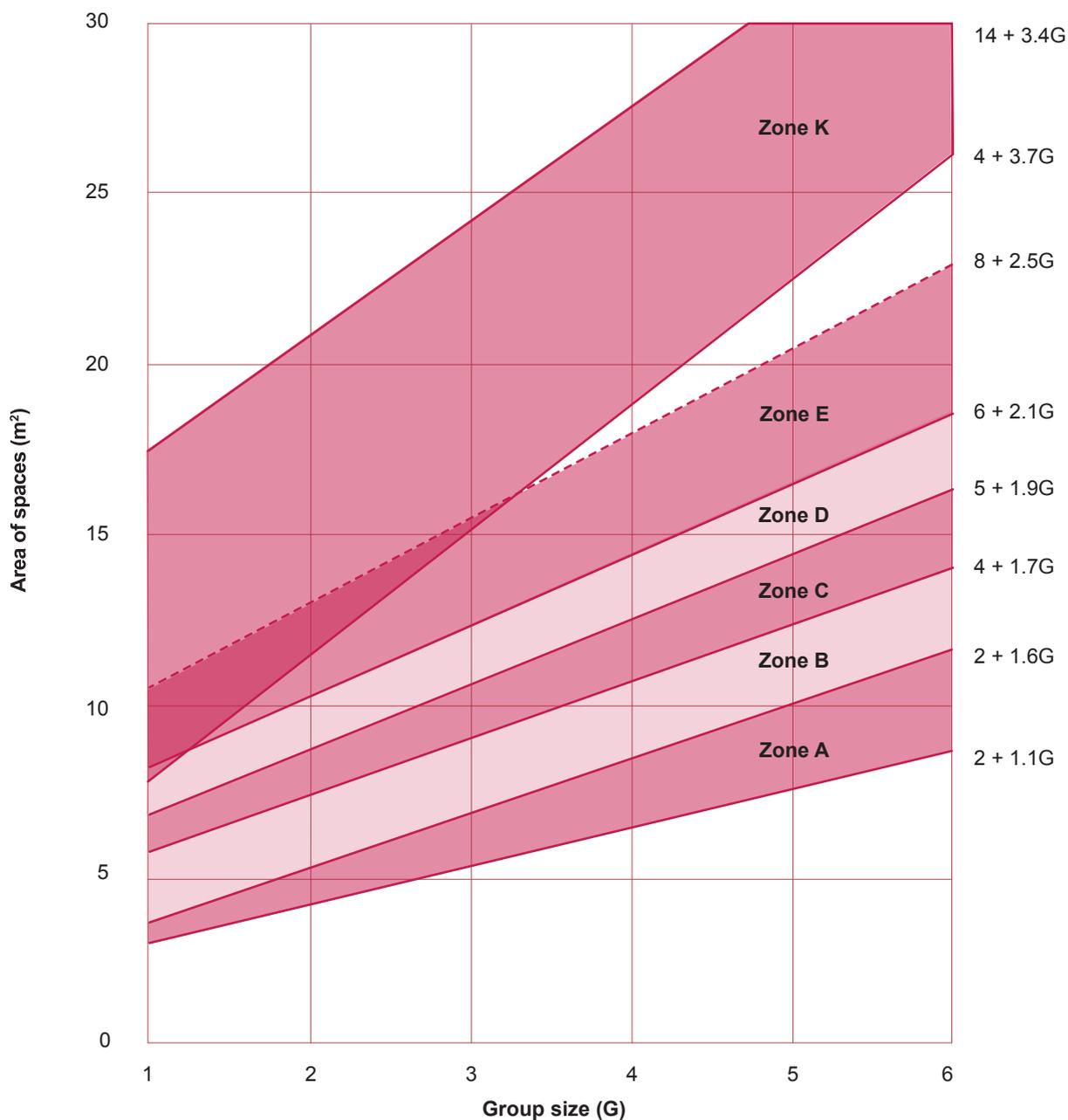
Learning resource areas in SRP and Units

The total area for learning resource in any SRP or Unit should include a therapy space where pupils receive support relevant to their needs, for example hearing aid checks for HI pupils or physiotherapy for PD pupils. Most SRP and Units will also have at least one small group r oom for one-to-one learning, individual quiet time and small group working. In a Unit there will generally be one small group room for every 2 to 3 classrooms but one per classroom for pupils with autism.

Where there are pupils with autism any SRP or Unit should also have (in addition to the therapy and small group rooms):

- one quiet/calming room or sensory room;
- a space where pupils who feel uncomfortable using the main school dining room can have lunch, this will not be a dedicated space but have other uses for learning and meetings.

Where there are pupils with PD or VI any SRP or Unit should also have (in addition to the therapy and small group rooms):

- a life skills room for occupational therapy, and where PD pupils can eat/be fed if they need privacy (typically 25m^2 for 2 pupils).

In addition to the above, most SRP will have one group room for each support class group, assuming no more than 75% of pupils will be in the provision at any one time (zone F for ambulant pupils and zone H for physically disabled pupils). The exact nature of the group room will vary depending on pupils' needs. For example, there may be one group room providing a base where 20 VI pupils can work with their specialist IT equipment or there may be a number of group rooms where HI pupils have support teaching in groups of 6 to 12. A Unit will have classrooms (see Basic teaching) but may also have group rooms.

Note: Group rooms and small group rooms aren't always in a suite; they may be dispersed around the school. Some schools may choose to add the equivalent area to some of the main school's classrooms. However, there will usually be a 'base' for pupils in the SRP or Unit.

Table 15 shows the most common types of space in the learning resource areas category and their respective recommended standard size, where applicable.

Zone	Room type	Typical setting	Recommended standard size
B	Small group room (ambulant)	special school, SRP, Unit, AP	10m^2 for 4
C	Small group room (severe SEMH)		7m^2 for 1
F	Small group room (non-ambulant)		12m^2 for 2
D	Quiet/ calming room (severe autism)		8m^2 for 1
D	Therapy room (ambulant)		12m^2 for 4
F	Therapy room (non-ambulant)		15m^2
F	Sensory room (ambulant)	special school, SRP, Unit	13m^2-16m^2
G	Sensory room: (non-ambulant)		16m^2-23m^2
F	Life-skills room (ambulant):		18m^2 for 3
H	Life-skills room (non-ambulant)		25m^2 for 2
N/A	Library (ambulant)	Special school	varies
N/A	Library (non-ambulant)		varies
N/A	Soft play room (ambulant/non-ambulant)		20m^2-25m^2
N/A	Physiotherapy room (non-ambulant)		25m^2-30m^2
N/A	Hydrotherapy room (ambulant/ non-ambulant)		85m^2 (24m^2 pool)
F	Group room (ambulant)	SRP	27m^2 for 6
G	Group room (autism)		34m^2 for 6
G	Group room (VI)		48m^2 for 10
H	Group room (PD)		41m^2 for 6

Table 15
Learning resource areas in SRP and Unit

Staff and administration

The total area for staff and administration comprises most non-teaching areas within the net area except stores (for recommended areas see Appendix 1.

Staff and administration in special schools and AP

The total staff and administration area for a special school or AP should include:

- a general office for administrative staff, with storage for confidential records in FF&E, a reception desk onto the reception area, and the option of a second reception desk onto a part of the school open to pupils;
- a secure reception area for visitors, with access to the rest of the school controlled by the office staff (this net area is for seating and display, over and above the circulation space through the entrance / reception space);
- an interview room, ideally accessed from the entrance foyer or reception area, along with an accessible visitors' toilet, so that they can be used by visitors without them entering the main school;
- a headteacher's office of about 15m²;
- a meeting/training room for case meetings, staff training, etc;
- a parents' room which could also be used as a second meeting room;
- preparation and social space for teaching staff, usually in the form of a central staff room for work and social use including a kitchenette.

And may also include:

- offices for other senior teaching staff,such as the deputy head or bursar, who may need privacy for interviews and pastoral support (special schools and larger AP);
- an office base for visiting therapists typically provided in special schools;

- separate reprographic facilities, if they are not in the general office or staff room;
- an office/workshop for a facilities manager or caretaker , typically provided in all non-ambulant special schools;
- an office/ workshop for an ICT technician .

The total staff and administration area for a special school or AP should also include facilities for the medical examination and treatment of pupils and for the short term care of sick and injured pupils. This will typically comprise either:

- a sick bay or sick room for pupils waiting to be collected, near to the main office and a toilet, to include a washing facility and;
- a medical treatment room (15m² to 20m²) for the treatment and care of pupils, to have a lockable fridge and easy access to an accessible WC;

or (for example where pupils have profound and multiple learning difficulties):

- a medical treatment room (15m² to 20m²) for the treatment and care of pupils but also functioning as a sick room, to have a lockable fridge and easy access to an accessible WC and;
- a nurse's base (usually linked to the treatment room) for preparing gastro tube feed with a wash hand basin (and secure storage for drugs, if dispensed from here).

Where there are non-ambulant pupils medical rooms should have a ceiling mounted H-framed hoist.

Staff and administration in SRP and Units

SRP or Units should only require a staff work room (zone D) and in larger settings there may also be a staff office (zone C). Where pupils (such as those with VI) require significant technical support, a staff work room will be used for maintaining equipment and creating specialist resources. As SRP and Units are small settings, each space needs to be used effectively.

For example, a staff work room is likely to be used also by visiting therapists. Because staff in the SRP or Unit will also use staff facilities in the main school it is important to take them into account when calculating accommodation for the whole school site.

Table 16 shows the most common types of space within the staff and administration area and their recommended standard size.

Zone	Room type	Typical setting	Recommended standard size
C	Office (only): for one or more members of staff, with administrative storage	special school, AP, SRP, Unit	$7m^2$ for 1, $9m^2$ for 2
D	Staff work room: space for staff to work and meet		varies
A	Interview room: off reception area to meet visitor(s) without the need to access the main school		$6m^2$ for 3
N/A	Sick bay: semi-open bay for pupils who are feeling unwell		$4m^2$
N/A	Sick room: enclosed room for pupils who are feeling unwell		$6m^2$
K	General office: main office for administrative staff, with reception desk for visitors, off entrance/ reception area		varies
D	Head's office (meeting room): office for headteacher and meetings of staff, visitors or other adults		$15m^2$ for head and 4 visitors
E	Office/workshop: for facilities or ICT manager		varies
B	Staff room (social): main space for staff to meet and socialise		varies
C	Staff room (prep and social): main space for staff to work, meet and socialise		varies
C	Meeting/training room: for meetings of staff, outside agencies and parents (especially review meetings) and staff training		varies
C	Parents room: for informal meetings		varies
N/A	Medical treatment room: for the treatment and care of pupils		$15m^2$ - $20m^2$
N/A	Nurse's base: for the care of pupils and for admin tasks	Special school	$15m^2$ - $20m^2$

Table 16
Staff and administration in SRP and Units

Storage

The total area for storage for all settings includes storage for teaching materials and equipment, and pupils' work. It is important that defined teaching storage is provided to avoid compromising the usable area and flexibility of the teaching spaces. The total storage area also includes non-teaching storage for pupils' belongings, administrative resources, pupils' records and cleaning and maintenance equipment. There will also be storage for mobility equipment which in a non-ambulant school can be extensive. For recommended total storage area see Appendix 1.

Storage in special schools and AP

Teaching storage

The total storage area for any special school or AP should include the following teaching storage (additional to that provided in furniture), easily accessible for staff but not pupils, ideally directly from the teaching space:

- classrooms: full height, lockable storage of 1m2 to 3m2 for every classroom depending on needs, for teaching resources and (where relevant) therapy equipment;
- practical rooms: walk-in stores for materials, equipment and pupils' work-inprogress in subjects such as science, design and technology and art (5m2 for each practical teaching room except science and design and technology in some secondary provision, see below);
- music: at least one instrument store for each school/AP of at least 5m2;
- indoor PE: equipment store totalling at least 10% of the area of the space used for PE.

Where there are secondary places, the total storage area should also include:

- science: where pupils are working towards a mainstream curriculum, a preparation/ storage space of at least 8m2, with dedicated cupboards for chemicals including a fire-proof cupboard for highly flammable liquids, where activities require the use of chemicals
- design and technology: where pupils are working towards a mainstream curriculum, storage for materials and tools of at least 8m2 and where materials are prepared on site a preparation room of at least 12m2 to safely accommodate machinery;
- food: a store room for dry goods, equipment and pupils' completed dishes of at least 5m2 for each food room;
- drama: a store for costumes and props of at least 8m2;
- outdoor PE: a store with external access, ideally near to outdoor PE facilities (in special schools this may include bike storage);
- therapy: storage for resources associated with therapy spaces (some of which may be in furniture).

Non-teaching storage

Non-teaching storage should include:

- coat and bag storage for pupils' personal belongings, 0.1m^2 per place or 0.2m^2 per place if pupils need more personal space;

- storage space for mobility equipment, 1.5m^2 per floor for any school or AP with additional area for non-ambulant special schools, see below;

- storage for medical supplies, some of which may need refrigeration;

- secure storage for valuable items such as school and personal records, archives or examination papers (where relevant, to meet examination board requirements);

- central storage for bulk stock, such as pens or paper;

- storage for maintenance equipment, and cleaners' and caretaker's equipment;

- furniture storage for chairs, tables and staging, and for dining furniture when the hall is used for dining, exam furniture may also be stored on site.

Non-teaching storage will also need to include:

- where there are non-ambulant pupils, space to store mobility equipment (6 + 1.5N);

- where pupils use specialist equipment such as braille readers or radio aids, space to store equipment when not in use (pupils' needs will have to be assessed);

- where there is a pool, storage for chemicals (special schools only);

- where there are pupils with severe medical needs, safe storage of oxygen cylinders.

The type and location of coat and bag storage will need to meet the age and needs of pupils. For example a store room or bay directly off a classroom is sometimes preferred because pupils feel more comfortable being able to see their possessions. The storage area must be additional to the classroom area and to the circulation space needed to access the coats. For secondary pupils, the storage may be in lockers which take up less area if stacked 3 or 4 units high (0.075m^2 per pupil place). Space must be allowed to open the locker doors.

The storage space required for mobility equipment is considerable in some special schools, many non-ambulant pupils have up to three pieces of equipment that they change between throughout the day either to suit an activity or for medical reasons. Whilst the majority of the storage space will be adjacent to those classrooms accommodating non-ambulant pupils, there should also be 'parking' space around the school so that, for example, a pupil can change equipment before a practical lesson. There may also need to be storage near the entrance so that pupils can change equipment on arrival at school and central long term storage for spare equipment. There needs to be a facility to charge up electric wheelchairs.

Storage in SRP and Units

The total storage area in SRP or Units should include:

- full height, lockable storage of $1m^2$ to $3m^2$, depending on needs, for every classroom or group room, for teaching resources and equipment;
- coat and bag storage (only if the pupils register there) of at least $0.1m^2$ per place or $0.2m^2$ per place if pupils need more personal space;
- storage for any specialist equipment associated with a pupil's particular needs such as mobility equipment or specialist IT equipment.

Non-net area

The non-net area comprises the three categories of space listed below, plus non-net areas needed to support any supplementary net area:

Toilets and personal care - this will depend on the number of pupil places and pupils' particular hygiene needs; in special schools accommodating non-ambulant pupils these facilities can take up considerable area which must be allowed for.

Kitchen facilities - this will depend on the type of catering arrangements, any special dietary needs and any additional community activities; SRP or Units will not have a dedicated commercial kitchen.

Circulation, plant and internal walls -this will generally be directly proportional to the net area, so it is important to include any supplementary net area in the total net area before calculating the requirement for these areas.

Toilets and personal care

The total area of toilet and personal care facilities must include the following toilet provision:

- for special schools, SRP and Units where pupils are less independent, and for pupils aged two to four in any setting, approximately one fitting for every 10 (fulltime equivalent) pupil places in total (where hygiene rooms are provided all but one of these can be counted towards this number);
- for any setting where pupils are independent and aged five years and above, one fitting for every 20 pupils in total;
- for all settings, at least one accessible toilet for disabled pupils per floor;
- where there is a hydrotherapy pool, one accessible toilet adjacent to the pool;
- for all settings, separate toilets for staff comprising at least one toilet with wash hand basin plus one for every 25 full-time equivalent members of staff (not including catering staff) rounded up, see the Workplace (Health, Safety and Welfare) Regulations 1992, Approved Code of Practice and Guidance, L24;
- for all settings, at least one accessible toilet for staff or visitors (which may also count towards the number of staff toilets above).

Hygiene rooms should be provided as follows: for non-ambulant special schools or Units, one hygiene room for every 12 nonambulant pupil places with fixed hoist, a changing bed, a wash hand basin, an accessible WC and accessible shower (if the changing bed doesn't incorporate one) and space for assistants to change a pupil; for ambulant special schools and AP, one hygiene room per setting with fixed or mobile hoist, a changing bed, a wash hand basin and an accessible WC (alternatively the WC can be adjacent and separately accessed).

There should be enough fittings in any setting to ensure they are easily accessible, particularly where pupils need assistance with their personal care or are learning to be more independent. In a suite for severely autistic pupils there may need to be more toilets to ensure there is one immediately adjacent to a classroom. Accessible toilets for pupils may need to be provided within each key stage area (ideally alongside standard toilets). All accessible toilets must meet the travel distances and access requirements of ADM.

Facilities should also be of the right size, fewer well-placed rooms of the right size work better than an over-provision of undersized rooms. Facilities must also suit the age of the pupils. The following can be used as a guide to the size of a hygiene room:

- a changing bed against the wall with wash hand basin (primary only) - 7m^2;
- a changing bed against the wall with wash hand basin and accessible WC (primary only) - 9m^2;
- a changing bed against the wall, an accessible WC and accessible shower (this is only suitable for AP, ambulant special schools or if there are other larger hygiene rooms) - 12m^2;
- a peninsular changing bed (so that staff can support a pupil on each side) and an accessible WC - 15m^2;
- a peninsular changing bed, an accessible WC and an accessible shower - 20m^2;

All hygiene rooms should have either a sluice or some other facility for dealing with waste (to suit the school's arrangements) and storage for pads, spare clothing etc.

Changing rooms should be provided near to indoor, and ideally outdoor, sports provision as follows:

- in special schools and AP with pupils in Year 7 and above, changing rooms for one class group (equal and separate facilities for boys and girls in co-educational 65 settings) with about one shower for every seven pupils generally in the form of separate cubicles;
- in special schools and AP with pupils in Year 7 and above, at least one accessible changing area with a sanitary fitting, wash hand basin and shower (if this is a separate space it may also be used by staff);
- in special schools, two changing rooms with shower for individual staff, associated with the PE space.

In special schools with a pool there must be assisted changing facilities for up to three disabled pupils as well as facilities for ambulant and independent wheelchair users. There must be a ceiling-mounted hoist leading directly from the assisted changing room to the pool. Arrangements will vary, there may be one 'dry' changing room for before using the pool and one 'wet' room for afterwards (a total area of at least 30m^2 will be needed). There should also be two changing rooms with shower for individual staff next to the pool.

Some of the spaces listed above may be designed to allow facilities appropriate to:

- use outside the school day;
- particular religious requirements, including orientation and ablutions.

Kitchen facilities in special schools and AP

Where a commercial kitchen is provided, the total kitchen area should include:

- facilities for preparing food and drink, and washing up afterwards, where needed;
- food store rooms;
- facilities for catering staff, including changing areas, toilets and a workstation for administration;
- a main servery serving hot food and other items (to be able to accommodate wheelchair users).

Where a commercial kitchen is provided, the total kitchen area should include:

- facilities for preparing food and drink, and washing up afterwards, where needed;
- food store rooms;
- facilities for catering staff, including changing areas, toilets and a workstation for administration;
- a main servery serving hot food and other items (to be able to accommodate wheelchair users).

Circulation, plant and internal walls

The circulation area should be at least the following (this also applies to supplementary area where relevant):

- for all AP, SRP and Units (except settings for pupils with PD) 22.5% of the total net area;
- for SRP and Units for pupils with PD, 25% of the total net area;
- for ambulant special schools, 27% of the total net area;
- for non-ambulant special schools, 32% of the total net area.

Within this area:

- all rooms should be accessed from a circulation route, except store rooms and (where appropriate) toilet and hygiene facilities that are accessed directly from learning spaces;
- where the provision is mainly for ambulant pupils, corridors leading to more than two classrooms should have a minimum clear width of 1.8m or 2m if pupils need more 'personal' space;
- where there pupils who use mobility aids or need assistance from support workers (such as a pupil with visual impairment), corridors leading to more than two classrooms should have a minimum clear width of 2.2m (minimum clear width of 1.8m wall to wall is the minimum for wheelchair users to pass safely in different directions, 2.2m allows staff to turn a wheelchair 180°);
- where there is an access route through a space, such as a dining area, a 'strip' of circulation at least 1.5m wide should be discounted from the usable net area, 1.8m in a non-ambulant special school.

In a non-ambulant special school corridors should allow for the movement of mobility equipment including horizontal learning stations, especially around corners and in/out of storage areas. There must also be sufficient circulation space for pupils (including those in wheelchairs) to move safely between their classrooms/hall and their transport at the start and finish of the school day, avoiding congestion - safety is paramount, since this can be a particularly stressful time for some pupils.

Circulation, plant and internal walls

Special schools should ideally be single storey to make circulation easier for pupils using mobility aids, or for those who need assistance or close supervision from staff. Where an upper floor is unavoidable staircases should be of sufficient width to allow:

• staff to assist a pupil from both sides;
• an evacuation chair or other equipment to take someone downstairs in case of fire;
• refuge and landing space, to meet ADM.

In addition, lifts will need to be able to accommodate a child plus their mobility equipment and accompanying staff.

Plant

In special schools and AP an area equivalent to at least 2% of the total net area will be needed to accommodate plant rooms and a server room, as well as hub rooms and vertical ducts. Further area will generally be needed if ventilation plant, chimneys or sprinkler tanks are included in the gross area of the building. In a special school with a pool, area for pool plant and chemical storage will be additional.

In SRP and Units the area required will be less because the main plant will be in the main school.

Internal walls

The area of internal walls will occupy an area equivalent to at least 3% of the net area, and up to 6%, if the walls are thicker due to existing or different forms of construction.

Supplementary area

In special schools and AP, supplementary area may be added for non-school functions such as community activities that require additional area. There are three types of spaces that fall within the category of supplementary area:

• area to accommodate the enhancement of a setting's facilities, this will include spaces which have been enlarged beyond the recommended 'standard', for instance to allow for extensive specialist equipment;
• area to accommodate extra support facilities, this will include separate spaces available to others as well as to the setting for specific uses, such as a second pool in a special school or a counselling centre in an AP;
• community provision, this is separate space not normally available to the setting, for example facilities for adult education during the day.

It is important to note that a dedicated, additional funding stream needs to be identified for any supplementary area unless that area already exists in appropriate accommodation.

SRP and Units are defined as supplementary to mainstream schools.

Part 2 - Site Area Sizing

The guidance maintains the approach and sizing from the BBs for site areas.

The site can support wider national policies, such as the ability to provide BNB and links with nature being positive for education and early years.

New BNB – As stated in Planning Policy Wales, 'Planning authorities should adopt a strategic and proactive approach to green infrastructure and biodiversity by producing up to date inventories and maps of existing green infrastructure and ecological assets and networks.' This incentive is aimed at achieving enhanced biodiversity through developments.

LtL Cymru is the Welsh programme of Learning through Landscapes; a UK charity dedicated to enhancing outdoor learning and play for children. Key documents which support this are The Environment Act (Wales) 2016 and the Wellbeing of Future Generations Act (Wales) 2015. The scheme also links to the New Welsh Curriculum.

The main functions of the scheme are:

- Working alongside schools and nurseries to help them implement practical development projects that transform their outdoor spaces and their children's school experiences.
- Enabling schools and settings across Wales to develop and use their grounds creatively through training programmes, advisory visits, inspiring resources in print, film and online, membership support services and bespoke support of local authorities and other partners.
- Advocating the importance to children of quality outdoor spaces and experiences in their schools and nurseries.

This part deals with the site area for a school. School grounds are a valuable resource and have a significant effect on the ethos of the school and the quality of education pupils receive.

Total Site Area

This part of the guide sets out how to establish the site area requirements for a school. For middle schools and all age schools the sizes of spaces can be established by referring to the relevant areas for primary and secondary schools.

This section can be split into:

- Net site area, which is the usable site area available to pupils, and is also known as the 'playing field area' when considering land disposals (Section 77 of the School Standards and Framework Act 1998);
- Non-net site area, which supports the functioning of the site and includes the footprint of buildings and access areas such as paths, roads and parking;
- Supplementary area, which is used for non-school or support functions such as specially resourced special needs facilities..

The gross or total site area is the total of the net and non-net site area. Generally, the total site area needed for a new 5 to 11 primary or a secondary school will vary between around 111% and 125% of the net site area such that the net site area is 80% to 90% of the total. The net site area for infants' schools is likely to be smaller as there is no requirement for soft outdoor physical education (PE) area (such as pitches). The gross site area may therefore be as high as 135% of the net site area, as the buildings and access area is a larger proportion of the total site.

Net Site Area

The total net site area required by an inclusive community school should not normally need to exceed the recommended net site area for the number of pupil places and age range of the school.

Further supplementary net site area, and a proportional increase in buildings and access area, may be needed if there are specially resourced non-school or support functions on the school site. Defining the total site area is an important step for a new school.

Net site area in special schools

Outdoor spaces in special schools are far more varied than in mainstream schools, reflecting the broad range of pupils' needs. For some schools horticultural activities are an important part of the curriculum, for others outdoor PE is the most important activity. For some schools there may also be little distinction between the formal and informal curriculum and between learning and play. For this reason the recommended area ranges are wider than in mainstream schools and the categories need to be used flexibly, although the minimum recommended for each category should be achieved.

Figure 19: Primary Site Area

Likely Total Site Area
110-125% of net site area

Net Site Area 2,000 + 32N
recommended. Statutory minimum team
game playing field area:

Float

Pitches
750 + 22.5N maximum

Pitches
0 + 20N minimum

**Statutory minimum team game
playing field area:** age 5-11

Soft Play (Informal & Social)
1000 + 3N maximum

Soft Play (Informal & Social)
800 + 2.5N minimum

Games Courts (Hard Surfaced)
800 + 2N minimum

Hard Play (Informal & Social))
400 + 1.5N minimum

Habitat Area
200 + 1N minimum

Figure 20: Secondary Site Area

Likely total site area
110-125% of net site area

Net site area
(13,000 + 47N) recommended

Sum of minimum area

Pitches
10,000 + 35N minimum
Statutory minimum 'team game
playing field' area

(Top of zone: 1,000 + 3N)

Soft informal & social
800 + 2.5N minimum

Games courts (hard surfaced)
600 + 2N minimum

Habitat area
200 +1N minimum
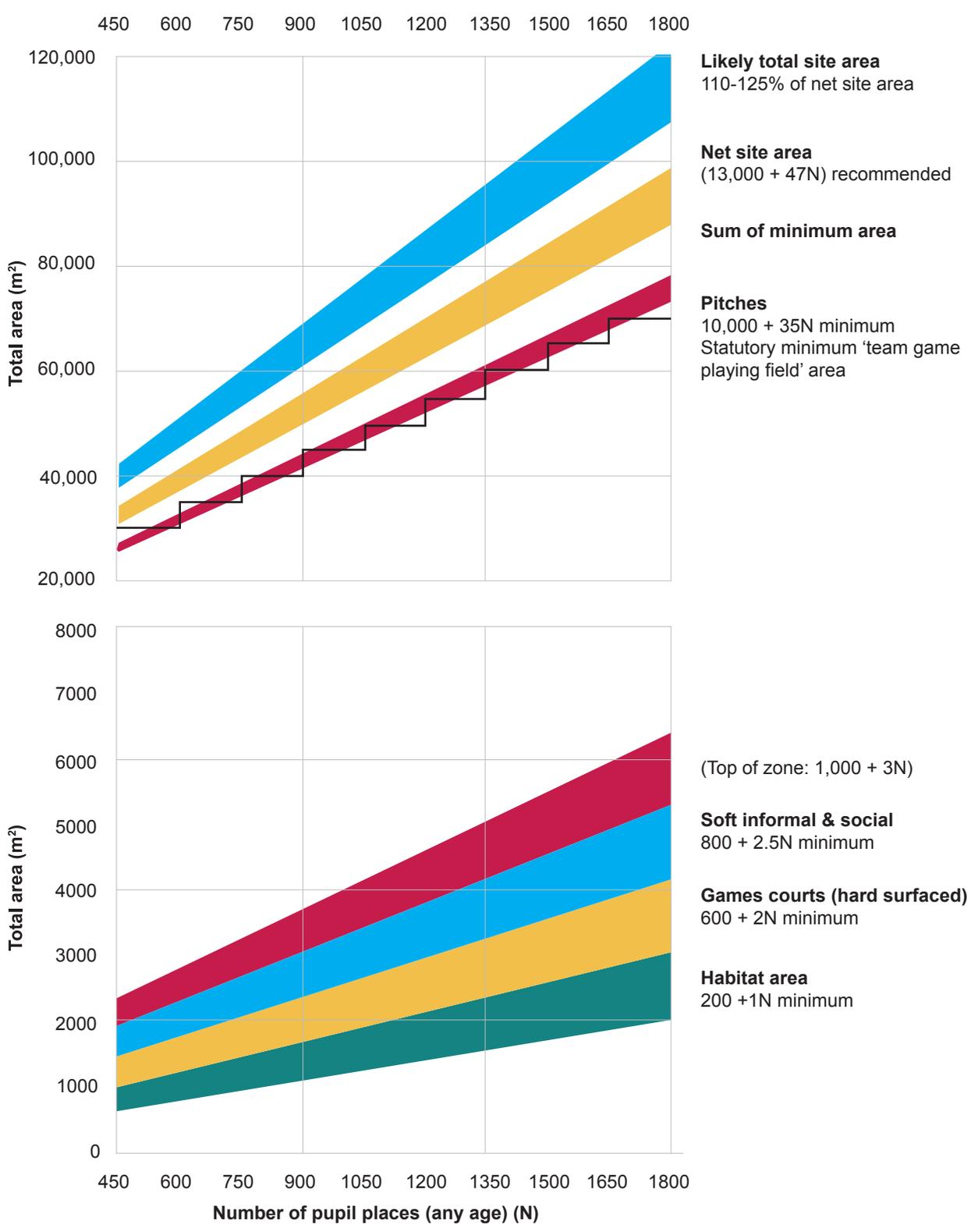
Net Site Area: Playing Fields

The net site area, also known as the school playing field area in Section 77 of the School Standards and Framework Act 1998 'protection of school playing fields', can be divided into the following five categories of outdoor space:

• soft outdoor PE;

• hard outdoor PE;

• soft informal and social area;

• hard informal and social area;

• habitat areas;

plus any supplementary net site area needed for non-school or support functions.

The graphs in figures 18 and 19 show the zones for each category of outdoor space. As with the area of buildings, the top of each zone is the recommended maximum area for the category, and the bottom is the recommended minimum area. Each is calculated for the number of pupil places by using the formulae shown in the graphs and annex B. The graphs also show the recommended minimum and maximum net site area, and the likely range of gross area needed, based on the minimum and maximum proportion of net to gross (see page 35). The range in the graphs allows for variation in the shape and contours of the site, and size of the building footprint.

The total net site area required by an inclusive community school should not normally need to exceed the maximum recommended net site area for the number of p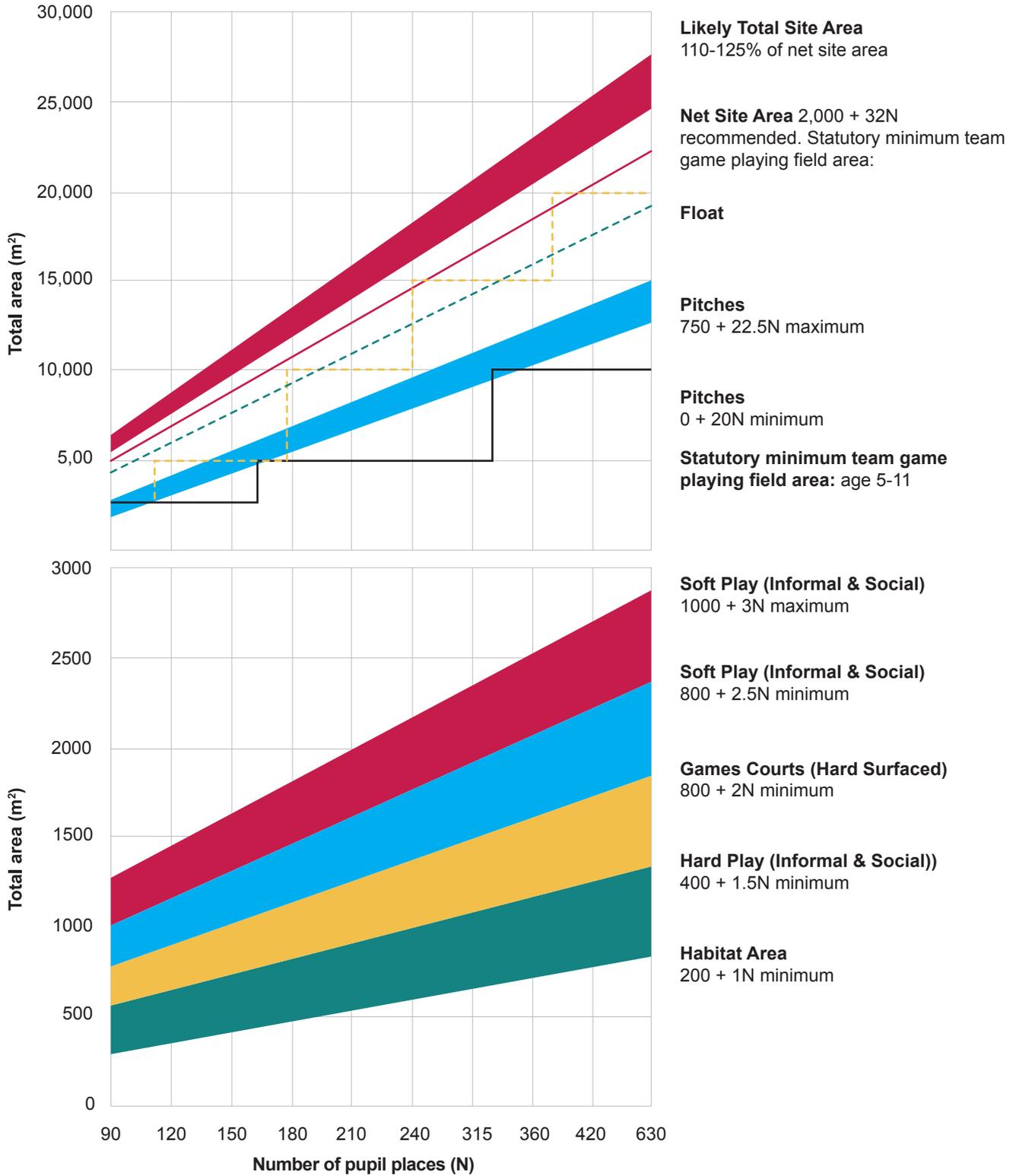upil places and age range of the school. However, existing sites with at least this site area available must generally keep this area for 105% of the current capacity to allow for future growth, see Section 77 of the School Standards and Framework Act 1998.

Some schools will be on restricted sites and will not have enough outdoor space to meet requirements on site. In these situations pupils will need to be provided with access to suitable off-site provision. On restricted sites, where space will be at a premium, a flexible approach to the site area and the management of the use of that area will be needed, and consideration should be given to providing the following, in priority order:

• firstly, space for hard informal and social area including outdoor play area immediately accessible from nursery and reception classrooms

• then some hard outdoor PE space to allow some PE or team games to be played without going off site, ideally in the form of a multi-use games area that can also be used as hard informal and social area

• then soft informal and social area for wider range of outdoor educational opportunities and social space

• finally some soft outdoor PE can be provided. If this is in the form of an all-weather pitch, it can count twice towards the recommended minimum

Special schools

Where a special school is on a restricted site a flexible approach must be taken to the provision and management of the area available, priority should be given to those spaces that are most important to the particular needs of the pupils in the setting. Where it is appropriate pupils can access suitable off-site PE provision. Security and safety are particularly important on special school sites; pupils may be less aware of dangers or more vulnerable to their environment. Outdoor spaces should provide good sightlines, with no hidden spaces. Some areas will need to be fenced off (in addition to the perimeter fencing); noisy, busy areas should be separate from quieter, sheltered spaces. Where there are less mobile or non-ambulant pupils there must be:

- accessible routes, with shelter for more vulnerable pupils;
- safe and wheelchair-accessible surfaces, with safe changes in level or transitions between surfaces;
- wide paths (ADM and BS8300 require 1500mm and 1800mm for busy routes with passing places as required).

School staff should be consulted to ensure that outdoor areas are suitably placed in relation to the building. For instance, some pupils may be easily distracted if their classroom overlooks external activities.

Storage will be needed for PE and play equipment, possibly including bicycles.

Figure 21: Net Site Area: Playing Field

Outdoor PE facilities

Soft outdoor PE area

The total area of soft surfaced outdoor PE should include sports pitches laid out to suit team games including:

- winter pitches for the school's preferred team games, such as football, rugby and hockey; and,
- overlapping summer pitches, such as cricket, a 400m athletics track and facilities for field events.

As well as the grass pitches above, the area may also include:

- all-weather pitches such as synthetic turf pitches, which allow more intensive use than grass and, particularly with floodlighting, can also offer a popular community resource (Sport England, 2012: Artificial Surfaces for Outdoor Sport);
- other soft-surfaced facilities that can provide for the PE and sports provision such as trim trails and bike tracks.

The area of all-weather pitches can be counted twice for the purposes of both these guidelines and section 77 applications, as they can be used for significantly more than the seven hours a week assumed of grass pitches.

The location, size and shape of grassed outdoor PE areas should be based on a number of considerations including the statutory requirements, safety considerations, gradient, relationships between winter-games pitches and summer athletics and cricket provision (as appropriate), orientation of pitches and accessibility.

Special schools

Many pupils in special schools can take part in team games and other activities similarly to pupils at mainstream schools. Some will take part in simplified games for developing throwing, catching and jumping skills. For some pupils including those with severe autism team games may not be appropriate. Provision should be geared towards the pupils at the school.

It is important that where pitches are provided, they are designed and constructed so that wheelchair users can access them. All-weather surfaces are easier for wheelchair users to move across than grass pitches.

Hard outdoor PE area

In new schools, the total area of hard surfaced outdoor PE should include:

- a porous macadam multi-use games area (MUGA), with three netball courts overlaid, with critical dimensions of 22m x 33m plus margins for primary or 60m x 33m plus margins for secondary pupils;
- further tennis/netball courts in larger schools.

Laying out a variety of courts within a single multi-use games area makes supervision easier and extends the range of games.

In existing schools, a similar amount of hard surfaced area should be laid out for games.

Special schools

Where a formal team games area is not suited to pupils' needs, for example where most pupils are non-ambulant or severely autistic, a hard surfaced area should still be provided for other PE activities.

Soft informal and social areas

A variety of informal and social areas should be created to suit the learning development and cultural needs of pupils during breaks as well as before and after school, and for a range of more formal curriculum needs. These will include soft-surfaced, usually grassed, areas and hard-surfaced courtyards, paths and playgrounds.

The soft-surfaced areas should be conveniently situated, safe and provide some shade.

The total area could include:

- soft-surfaced areas, such as grass, sand or bark mulch, for play, or to sit and socialise;
- grassed banks or terraces that can be used for large gatherings;
- shrubs or planted areas (including those near buildings);
- meadowland or woodland, where there is space available.

Special schools

These areas can also be where pupils come to have some quiet time or to calm down if they feel distressed or anxious. Safety is paramount, stepped and sloped areas that may be provided in mainstream schools may not be suitable even for some ambulant pupils.

Hard informal and social areas

To complement the soft informal and social areas, there should be hard-surfaced playgrounds for the encouragement of healthy, active, creative outdoor play, as well as for more formal learning activities including outdoor study groups and for pupils to engage in outdoor art, theatre, dance and design. There may also be the need for areas dedicated specifically to early years (nursery and reception), including some sheltered space. 'Furniture' can be created through the introduction of natural materials that blend into the landscaping. The total area may include paths and rooftop play areas in restricted sites.

Special schools

The recommended area zone for hard informal and social area is wide, reflecting the range of pupils' needs, but for any special school this area should include:

- space to play (including for wheelchair users) as well as space to run and kick a ball;
- social spaces to sit and talk, or quiet places to be alone, with fixed seating and wheelchair space alongside;
- outdoor space directly accessible from nursery and reception classrooms (and where appropriate for older pupils who benefit from 'cooling off' outdoors), a part of which should be covered to provide shade and some protection from light rain.

The total area may also include:

- areas with fixed adventure and play equipment with safety surfaces;
- for secondary-age pupils, places for vocational learning such as vehicle washing;
- for non-ambulant pupils, routes laid out for mobility training with safe simulations of hazards that pupils might meet outside school to help them to develop independence skills.

There may be a need to separate boisterous activities from quieter sheltered spaces for more vulnerable pupils. Paths, fencing and gates can be used to divide areas, to add variety and help with supervision. In some cases outdoor spaces directly outside classrooms will need to be fenced off for safety reasons. Access control, as well as fencing positions and heights, should be agreed with the school.

The type and amount of sensory stimulus and play equipment will vary according to needs and should be discussed with staff. There should be adequate space around play equipment and safety surfaces for soft landings. 'Furniture' can be created through the introduction of natural materials that blend into the landscaping.

Habitat areas

Habitat areas can include a range of outdoor classroom spaces and designs, to provide a valuable resource for teaching and learning across the whole curriculum. The total habitat area should include grounds developed for a range of supervised activities, for instance meadowland, wildlife habitats (such as ponds), gardens and outdoor science areas to support the curriculum. Such areas should generally be fenced to avoid unsupervised access. Parts of this area may be designed to be developed over time by the school.

Special schools

For any special school the total habitat area should include grounds developed for a range of supervised activities.

Where there are non-ambulant pupils there should be:

- raised planters for pupils using wheelchairs and other mobility aids;
- accessible greenhouses.

The recommended area zone for habitat is wide because provision will vary depending on the school's curriculum and the natural opportunities of the site. A secondary special school that specialises in vocational courses may have extensive horticultural facilities; another school may make use of existing wooded areas to establish covered outdoor classrooms or nature trails. Habitat areas should be fenced to avoid unsupervised access and designed to support effective supervision. Appropriate sightlines and security are essential to avoid pupils straying and to provide protection from unauthorised visitors. Parts of this area may be designed to be developed over time by the staff, pupils and parents.

Net Site area in AP

The external area for AP will vary greatly depending on location and may be minimal in an urban setting. It is important to make best use of the available space and to meet pupils' particular needs. Outdoor spaces should provide for social and recreational activity and where possible physical education. For older pupils sheltered outdoor space can complement indoor vocational learning space for courses such as construction.

Outdoor PE in AP

PE activities can develop social skills, teamwork and understanding risks. However it may not be suitable for all pupils.

For secondary provision, typical provision could comprise a multi-use games areas (MUGA) of 18x 33m overall with 1 to 1.5m margins which allows for basketball (15 x 28m), netball (15.25 x 30.5m) and football. Storage will also be needed (see Storage). For a Primary-only AP where there may not be space for a MUGA, shared use is often arranged with a nearby primary school.

For pupils with behavioural difficulties soft surfaced outdoor PE could include (where space is available) sports pitches laid out to suit team games such as football, athletics tracks, trim trails or bike tracks. A grass pitch for 5-a-side football is 18.5m to 28m x 30m to 40m. If a site for an AP which accommodates secondary-age pupils with behavioural difficulties is very constrained the internal PE space may need to increase.

Additional Special school considerations

Informal and social areas in AP

Outdoor spaces should be provided for informal, social and recreational activities as well as curriculum use; there should be an external store.

For secondary-age pupils with behavioural difficulties and for primary-age pupils there should be spaces to run about and kick a ball as well as places to be quiet and socialise; robust outdoor play equipment may be provided. For older pupils with health difficulties the priority will be for quieter social spaces. In any setting quiet social spaces should be separate, protected and include some shelter. Some pupils may need access to a safe outdoor space to be quiet and calm.

At primary level an external space for use as an outdoor classroom is recommended.

Habitat areas in AP

Where there is space, areas for planting and keeping animals can benefit vulnerable pupils.

Net site area in SRP and Units

In SRP and Units pupils will share PE, social and habitat areas with the main school but there should be a separate protected area, with some shelter, directly accessible from the facility where pupils can have quiet time away from the main part of the school.

Building and Access Area

The non-net site area will vary depending on the configuration of the site and buildings. It will include:

- the 'footprint' of all buildings;
- delivery access;
- refuse areas (secure or distant from the buildings);

And will usually include:

- entrance paths, roads and related landscaping not normally available to pupils;
- car parking (usually equivalent to one parking bay per teacher plus a few bays for visitors and the disabled).
- And may include:
- space for coaches, buses or taxis to safely drop-off pupils, particularly those with ALN or disabilities;
- secure (and covered) bicycle storage for pupils and staff.

It is most important to consider means of separating children's pedestrian access from vehicular circulation, delivery areas and parking and for providing adequate, visible secure bicycle storage for older pupils.

Access for pupils at special schools

It is essential to provide enough space for the arrival and departure of pupils at a special school which can take up to 40% of the net site area. The exact requirements will depend on the school's particular arrangements and who will be coming to the school. Some pupils arrive on foot, by bicycle or buggy and may be using wheelchairs or other mobility aids. Most will be transported to site and there may be numerous vehicles arriving to drop pupils off at the same time.

It is important to know the potential number and type of vehicles and process of handover to the school. For example minibuses that have rear doors require a different parking layout (with possible area implications) from minibuses with side doors. The minimum non-net area formula allows for the access area to be used solely for arrival/drop off but on a constrained site effective use 80 can be made of the space if all or part of the drop-off area is designed to become a safe and secure hard informal and social area during the school day.

Arrival and departure take time and involve several staff. Some pupils, including those with autism, will be feeling anxious; some pupils have less awareness of the risks of traffic or are not able to see or hear vehicles. The process needs to be calm and efficient and ensure health and safety. Transferring pupils in wheelchairs from the rear or side of a vehicle is a slow process, which takes place in all weathers; there should be shelter from the vehicle to the pupils' entrance.

Site access at a special school should provide:

- vehicular circulation that allows for public and private transport, including set-down and drop-off without congestion (for example, by one way traffic flow or a roundabout);
- easy access for ambulances to pick up at the main or pupil entrance;
- easily accessible, level or ramped pedestrian routes with slip-resistant and well-drained surfaces, without trip hazards and with an accessible stepped route nearby to give a choice;
- good quality external lighting along routes with clear legible signage, visual contrast and sensory way-finding to help independence.

Supplementary Site Area

Any school may have supplementary areas for non-school or support functions. Any site area associated with these functions will be a supplementary site area and may also need to be funded through other joined-up funding streams.

Some examples are play space for a crèche, extra car parking for community use, or enhancements to sports provision also used by the community.

Appendix 1
School Sizing Formulas

Area Min and Max Formula (Primary)

Primary school Areas

Area	Min	Max
Total Net Area	236 + 3N	260 + 3.22N
Float	18 + 0.17N	
Basic Teach Area	0 + 2.1N	30 + 2.2N
Halls & Studios	100 + 0.3N	115 + 0.35N
Storage	45 + 0.25N	60 + 0.3N
Staff & Administration	30 + 0.2N	45 + 0.25N
Learning Resource Areas	15 + 0.15N	35 + 0.23N
Assembly	15 + 0.25N	20 + 0.3N
Library Resource Centre	15 + 0.08N	
Kitchen Facilities	0 + 0.1N	22.5 + 0.23N
Dining	15 + 0.3N	
Net Site Area	2,000 + 32N	
Pitches	0 + 20N	750 + 22.5N
Soft Play (Informal & Social)	800 + 2.5N	1,000 + 3N
Games Courts	600 + 2N	800 + 2.5N
Hard Play (Informal & Social)	400 + 1.5N	600 + 2N
Habitat Area	200 + 1N	400 + 1.5N

Classroom specific areas

Area	Min	Max
Large Classroom	6 + 1.9G	7 + 2.1G
Standard Classroom	5 + 1.7G	6 + 1.9G
Small Class base	4 + 1.5G	5 + 1.7G
Group Room	2 + 1.1G	4 + 1.5G

Area Min and Max Formula (Secondary)

Secondary Areas

Area	Min	Max
Net Area	1,030 + 4.31N	1,300 + 4.7N
Float	270 + 0.39N	
Basic teaching area	50 + 3N	135 + 3N
Halls	600 + 0.3N	750 + 0.35N
Storage	175 + 0.35N	225 + 0.4N
Staff Administration	125 + 0.3N	175 + 0.35N
Learning Resources	75 + 0.25N	135 + 0.28N
Learning Resources (11-18 years)	125 + 0.3N	200 + 0.34N
Dining and Social	25 + 0.2N	75 + 0.25N
Dining and Social (11-18 years)	100 + 0.26N	175 + 0.31N
Library Resource	40 + 0.08N	
Kitchen	0 + 0.1N	15 + 0.15N
Net site area		13,000 + 47N
Pitches	10,000 + 35N	
Soft Informal & Social	800 + 2.5N	1,000 + 3N
Games Courts (Hard Surfaced)	600 + 2N	800 + 2.5N
Hard Informal & Social	400 + 1.5N	600 + 2N
Habitat Area	200 + 1N	400 + 1.5N

Additional Sixth form area

Area	Min	Max
Additional Net Area	Sum of minimum area	300 + 5.7N
Additional Basic teaching area	150 + 3.3N	250 + 3.6N
Additional hall space	0.3N	0.35N
Additional storage	25 + 0.4N	50 + 0.45N
Additional staff administration	0.35N	25 + 0.4N
Additional learning resources	50 + 0.45N	75 + 0.25N
Additional Dining and social	75 + 0.5N	100 + 0.55N

Classroom specific sizes

Area	Min	Max
Resistant Materials	27 + 4G	31 + 4.4G
Food Room	28 + 3.6G	27 + 4G
Electronics and control systems, sixth form science laboratory	19 + 3.2G	28 + 3.6G
Large art room (textiles or 3D), textiles, sixth form art room, graphics products	15 + 2.8G	19 + 3.2G
Standard art room	11 + 2.4G	15 + 2.8G
Science laboratory	11 + 2.4G	15 + 2.8G
Information Communications Technology (ICT), business studies, language laboratory	7 + 2.1G	11 + 2.4G
Large classroom	6 + 1.9G	7 + 2.1G
Standard classroom	5 + 1.7G	6 + 1.9G
Small classroom	4 + 1.5G	5 + 1.7G
Small group room	2 + 1.1G	4 + 1.5G

ALN room requirements

Area	Min	Max
Ambulant		
Gross area	700 + 14.5N	825 + 156.5N
Net area	475 + 10N	575 + 10.7N
Float	325 + 8.9N	475 + 10N
Basic teaching	6.5N	8.5N
Halls, PE, dining & social	100 + 0.6N	175 + 0.8N
Staff & admin	90 + 0.8N	120 + 1.2N
Storage	75 + 0.6N	105 + 1N
Learning resources	60 + 0.4N	105 + 1N
Non-ambulant		
Gross area	900 + 18.5N	1,050 + 20.5N
Net area	550 + 12.4N	625 + 13.6
Float	385 + 10.9N	550 + 12.4N
Basic teaching	7.5N	9.5N
Halls, PE, dining & social	100 + 0.8N	150 + 1.6N
Staff & admin	90 + 0.8N	120 + 1.2N
Storage	75 + 0.6N	150 + 1.6N
Learning resources	120 + 1.2N	165 + 1.8N
Ambulant with secondary age pupils		
Gross area	1,050 + 14.5N	1,250 + 16.5N
Net area	725 + 10N	825 + 10.7N
Float	525 + 8.9N	725 + 10N
Basic teaching	150 + 6.5N	200 + 8.5N
Halls, PE, dining & social	150 + 0.6N	225 + 1.8N
Staff & admin	90 + 0.8N	135 + 1.4N
Storage	75 + 0.6N	105 + 1N
Learning resources	60 + 0.4N	120 + 1.2N
Non-ambulant with secondary pupils		
Gross area	1,250 +18.5N	1,500 + 20.5N
Net area	775 + 12.4N	875 + 13.6N
Float	585 + 10.9N	775 + 12.4N
Basic teaching	175 + 7.5N	200 + 9.5N
Halls, PE, dining & social	125 + 0.8N	200 + 2N
Staff & admin	90 + 0.8N	120 + 1.2N
Storage	75 + 0.6N	150 1.6N
Learning resources	120 + 1.2N	165 + 1.8N

ALN room requirements

Area	Min	Max
Float	585 + 10.9N	775 + 12.4N
Basic teaching	175 + 7.5N	200 + 9.5N
Halls, PE, dining & social	125 + 0.8N	200 + 2N
Staff & admin	90 + 0.8N	120 + 1.2N
Storage	75 + 0.6N	150 1.6N
Learning resources	120 + 1.2N	165 + 1.8N
Primary Alternative Provision (health)		
Gross area	275 + 10.5N	300 + 12.5N
Net area	165 + 7.6N	185 + 8.5N
Float	110 + 6.5N	165 + 7.6N
Basic teaching	4.5N	60 + 5.5N
Halls, PE, dining & social	40 + 0.6N	70 + 0.8N
Staff & admin	35 + 0.5N	70 + 0.8N
Storage	25 + 0.5N	55 + 0.7N
Learning resources	10 + 0.4N	35 + 0.5N
Primary Alternative Provision (behaviour)		
Gross area	300 + 12.5N	350 + 14.5N
Net area	180 + 9N	210 + 10N
Float	110 + 7.5N	180 + 9N
Basic teaching	5.5N	60 + 6.5N
Halls, PE, dining & social	40 + 0.6N	70 + 0.8N
Staff & admin	35 + 0.5N	70 + 0.8N
Storage	25 + 0.5N	40 + 0.6N
Learning resources	10 + 0.4N	35 + 0.5N
Alternative Provision (health) with secondary age pupils		
Gross area	400 + 10.5N	450 + 12.5N
Net area	250 + 7.6N	275 + 8.5N
Float	180 + 6.5N	250 + 7.6N
Basic teaching	60 + 4.5N	120 + 5.5N
Halls, PE, dining & social	40 + 0.6N	70 + 0.8N
Staff & admin	35 + 0.5N	70 + 0.8N
Storage	35 + 0.5N	55 + 0.7N
Learning resources	10 + 0.4N	35 + 0.5N
Alternative Provision (behaviour) with secondary age pupils		
Gross area	450 + 12.5N	525 + 14.5N
Net area	300 + 9N	350 + 10N
Float	260 + 7.5N	300 + 9N
Basic teaching	60 + 5.5N	120 + 6.5N
Halls, PE, dining & social	120 + 0.6N	150 + 1N
Staff & admin	35 + 0.5N	70 + 0.8N
Storage	35 + 0.5N	55 + 0.7N

ALN room requirements

Area	Min	Max
Learning resources	10 + 0.4N	35 + 0.5N
Specially resourced provision (ambulant) any age		
Gross area	60 + 5N	75 + 6.5N
Net area	42 + 3.6N	52 + 4.6N
Float	25 + 2N	42 + 3.5N
Basic teaching	N/A	N/A
Learning resources, dining and social	15 + 1.6N	30 + 3.6N
Staff & admin	5 + 0.2N	15 + 0.8N
Storage	5 + 0.2N	5 + 0.8N
Specially resourced provision (physical disability) any age		
Gross area	60 + 5N	75 + 6.5N
Net area	30 + 3.6N	40 + 4.4N
Float	25 + 2.2N	30 + 3.6N
Basic teaching	N/A	N/A
Learning resources, dining and social	15 + 1.2N	20 + 2N
Staff & admin	5 + 0.2N	15 + 0.8N
Storage	5 + 0.8N	15 + 1.6N
Unit (ambulant) any age		
Gross area	60 + 10.5N	75 + 12.5N
Net area	42 + 7.6N	52 + 8.8N
Float	25 + 5.7N	42 + 7.6N
Basic teaching	4.5N	6N
Learning resources, dining and social	15 + 0.8N	20 + 2N
Staff & admin	5 + 0.2N	15 + 0.8N
Storage	5 + 0.2N	15 + 0.8N
Unit (ambulant – autistic spectrum disorder) any age		
Gross area	60 + 12.5N	75 + 14.5N
Net area	42 + 9N	52 + 10N
Float	25 + 7.1N	42 + 9N

ALN room requirements

Area	Min	Max
Basic teaching	5.5N	7.5N
Learning resources, dining and social	15 + 1.2N	20 + 2N
Staff & admin	5 + 0.2N	15 + 0.8N
Storage	5 + 0.2N	15 + 0.8N

ALN Site requirements

Area	Min	Max
Gross and net external areas for special schools without team games.		
Gross site area	8,000 + 36N	11,500 + 42N
Non-net site area	4,500 + 21N	6,000 + 24N
Net site area	3,500 + 15N	5,500 + 18N
Hard informal and social zone	600 + 2N	1,800 + 5N
Soft informal and social zone	600 + 2N	1,800 + 5N
Habitat area zones	200 + 1N	1,000 + 3N
Hard outdoor PE zones	200 + 1N	600 + 2N
Soft outdoor PE zones	0 + 0N	600 + 2N
Gross and net external areas for special schools with team games.		
Gross site area	11,500 + 42N	15,000 + 48N
Non-net site area	4,500 + 21N	6,000 + 24N
Net site area	7,000 + 21N	9,000 + 24N
Hard informal and social zone	600 + 2N	1,800 + 5N
Soft informal and social zone	600 + 2N	1,800 + 5N
Habitat area zones	200 + 1N	1,000 + 3N
Hard outdoor PE zones	400 + 1.5N	800 + 2.5N
Soft outdoor PE zones	2,800 + 7.5N	3,800 + 10N

Appendix 2

Example schedules for 210 Primary and 900 Secondary schools

Primary Schools

Group	Room	Number of pupils									
		105		210		315		420		630	
		Number of rooms	Area (m²)	Number of rooms	Area (m²)	Number of rooms	Area (m²)	Number of rooms	Area (m²)	Number of rooms	Area (m²)
Teaching	Reception class	0.5	33	1	66	1.5	99	2	132	3	198
	Infant classbase	1	60	2	120	3	180	4	240	6	360
	Junior classbase	2	120	4	240	6	360	8	480	12	720
Specialist practical	Food/Science/D&T	1	24	1	24	1	24	1	24	1	24
	Food/Science/D&T/ICT group room									15	38
	ICT suite ((no. computers))	((8))	38	((15))	38	((23))	54	((30))	68	((30))	68
Halls	Main hall	1	140	1	180	1	150	1	150	1	200
	small hall							1	80	1	80
	studio					1	50			1	50
Learning resource	Library resource centre	1	28.5	1	39	1	49.5	1	60	1	81
	Small group room (SENco)	1	12	1	12	1	12	1	12	1	12
	Small group room	0	0	1	9	2	18	3	27	5	45
Staff admin	Head's office	1	10	1	12	1	14	1	16	1	20
	Senior management office					1	8	1	8	1	8
	Staff room	1	19	1	32	1	45	1	58	1	84
	general office	1	8	1	10	1	12	1	14	1	18
	sick bay	1	3	1	3	1	3	1	3	1	3
	entrance/reception	1	2	1	3	1	4	1	5	1	7
	copier/reprographics	1	2	1	4	1	6	1	8	1	12
	ALN therapt/MI room	1	12	1	12	1	12	1	12	1	12
	Interview/ social services			1	8	1	8	1	8	1	8
Storage	Class storage (reception)	1	3	1	3	1	3	2	6	3	9
	Class storage (infant and junior)	3	4.5	6	9	9	13.5	12	18	18	27
	Specialist stores	2	16	3	24	4	32	3	24	4	32
	PE stores (adjacent to hall)	1	12	1	12	1	12	1	12	2	24
	PE stores (external)	1	4	1	4	1	4	1	4	1	4
non-teaching storage	Central stock	1	8	1	8	1	8	1	8	1	8
	Cloakrooms/lunch box storage		10.5		21		31.5		42		63
	dining chair/table store	2	0	2	12	2	16	3	16	3	20
	Staging/ appliance store	1	0	1	4	1	8	1	8	1	8
	Community store	1	4	1	4	1	4	1	4	1	4
	Caretakers/ maintenance store	1	0	1	5	1	6	1	7	1	9
	Cleaner's store	2	3	2	3	3	4.5	3	4.5	4	6

Number of pupils

Group	Room	105		210		315		420		630	
		Number of rooms	Area (m²)	Number of rooms	Area (m²)	Number of rooms	Area (m²)	Number of rooms	Area (m²)	Number of rooms	Area (m²)
Kitchen	Kitchen	1	43.5	1	67.5	1	91.5	1	115.5	1	163.5
	Servery	1	6	1	6	1	8	1	8	1	10
Toilets	Reception toilets	1	4	2	8	3	12	3	12	5	20
	Other pupil toilets		15		30		45		60		90
	Accessible toilets/hygiene facilities		10		12		14		16		20
	staff toilets		3.5		7		10.5		14		21
Circulation			130		203		276		349		496
Plant			28.825		46.05		62.55		77.925		113.1
Partitions			29		45		61		78		110
Total area (m²)			846.325		1,345.55		1,831.55		2,288.925		3,305.6

Secondary Schools

Group	Room	Number of pupils							
		600		900		1200		1500	
		Number of rooms	Area (m²)	Number of rooms	Area (m²)	Number of rooms	Area (m²)	Number of rooms	Area (m²)
Teaching	Classroom	16	896	24	1344	32	1792	38	2128
	Further classroom	16	64	24	96	32	128	38	152
	IT room	1	77	2	154	3	231	4	308
	Science laboratory	3	270	4	360	5	450	7	630
	Science studio/demo	3	60	4	80	5	100	7	140
Design and Technology	Food room	1	353.7	1	523.8	2	695.7	2	877.5
	Resistant materials	1		2		2		3	
	Electronics and control	1		1		2		2	
	Constructional textiles	1		1		1		2	
	Graphics room			1		1		1	
Art	Large art room	1	105	2	210	2	210	2	210
	General art room			1	90	1	90	2	180
Music and Drama	Music recital	1	90	1	90	1	90	1	90
	Music classroom			1	67	1	67	2	134
	Drama studio					1	90	1	90
	Audio visual studio							1	90
Halls	4-court sports hall	1	594	1	594	1	594	1	594
	Activity studio	1	150	1	150	1	180	1	180
	Main hall	1	200	1	280	1	290	1	300
Learning resource areas	ALN base	1	40	1	40	1	40	1	40
	Small group room	1	16	1	16	2	32	2	32
	Small group/interview room	2	20	3	30	4	40	5	50
	Music group/practice room	4	28	7	49	7	49	10	70
	Music ensenble room	1	20	1	20	1	20	2	40
	Recording/control room	1	12	1	12	1	12	1	12
	Kiln room	1	4	1	4	1	4	1	4
	Darkroom	1	12	1	12	1	12	1	12
	Library resource centre	1	99.2	1	124	1	148.8	1	173.6
Staff administration	Head's office	1	12	1	12	1	12	1	12
	Meeting room	1	16	1	16	1	20	1	24
	Offices	10	80	13	104	15	120	18	144
	Community and other office	4	32	3	24	3	24	2	16
	ALN therapy/M I room	1	18	1	18	1	18	1	18
	Entrance/reception and adjacent sick bay	1	13	1	16	1	19	1	22
	General office	1	33	1	48	1	63	1	78

Number of pupils

Group	Room	600		900		1200		1500	
		Number of rooms	Area (m²)	Number of rooms	Area (m²)	Number of rooms	Area (m²)	Number of rooms	Area (m²)
Staff administration	Staff room	1	50	1	60	1	70	1	80
	Staff work rooms	5	70	5	100	5	130	1	160
	Reprographics	1	20	1	26	1	32	1	38
	ICT technician	1	8	1	8	1	8	1	8
Storage (teaching)	General teachin IT/library	6	18	9	27	11	33	14	42
	Music or drama spaces	7	42	13	78	18	108	25	150
	Instrument external stores	2	20	2	20	2	20	2	20
	PE stores	2	88	2	88	2	88	2	88
	Science preperation room and chemical store	1	65	1	91	1	117	1	143
	Food preperation	1	12	1	12	1	12	1	12
	Resistant materials prep room	1	50	1	50	1	50	1	50
Storage (non-teaching)	Central stock		12		15		18		24
	SENco/wheelchair/appliances	1	12	1	12	1	12	1	12
	Secure/exam/community stores	2	16	2	16	2	16	2	16
	Lockers for personal storage		42		63		84		105
	Community lockers	1	4	1	4	1	4	1	4
	Chair store	1	12	1	18	1	24	1	30
	Maintenance store	1	8	1	8	2	16	2	16
	Cleaner's store	4	6	6	9	8	12	10	15
Dining/social areas	Dining area	1	160	1	215	1	270	1	325
	Social and sandwich area	1	30	1	35	1	40	1	45
Catering facility	Kitchen	1	68	1	101	1	134		167
Toilets	Pupil changing rooms and showers	2	100	2	134	2	168	2	202
	Staff, accessible & gender neutral changing hygiene facilities		30		30		30		30
	Pupil toilets		90		129		168		207
	Additional pupil toilets with ALN areas								
	Accessible toilets								
	Staff toilets		21		32		42		53
Plant/Building services			162.396		221.552		272.22		329.364
Partitions			187		247		306		365
Circulation (70% of gross)			1,128		1,520		1,903		2,292
Total area (m²)			5,846.206		7,953.352		9,828.72		11,879.464

Appendix 3
Glossary and References

Glossary

ALN (Additional Learning Needs)
Refers to the special educational needs of students requiring additional support for learning, beyond standard educational provision.

Alternative Provision (AP)
Educational arrangements for students unable to attend mainstream schools due to behavioral, emotional, social, or health issues. AP may be temporary or longer-term depending on individual needs.

BB (Building Bulletin)
Historical documents from the Department for Education that provided area guidelines for school buildings. The current guidelines for Wales now diverge from the BB98, BB99, and BB104 standards.

Designated Units (Units)
Specialized facilities within mainstream schools, designed for students with specific needs, such as speech, language, or sensory impairments.

Float
The additional area within the recommended total net area that can be allocated flexibly to meet specific needs of a school, amounting to 8-11% of the maximum area recommendation.

Gross Area
The total internal area of a building, including all functional spaces and non-teaching areas.

Net Area
The usable area of a building, including spaces used directly for educational purposes but excluding certain circulation and non-teaching areas.

SCfL (Sustainable Communities for Learning)
A Welsh Government initiative funding new school builds and major refurbishments to align with the needs of the Welsh curriculum and sustainable, community-centered goals.

Specially Resourced Provision (SRP)
Facilities within mainstream schools for students with specific learning or physical needs. Unlike Units, SRPs allow students to spend most of their time in mainstream classrooms, accessing support when needed.

SOA (Schedule of Accommodation)
A document outlining the number and types of spaces required for a school, based on student numbers, curriculum, and age range.

Universal Primary Free School Meals (UPFSM)
A policy mandating free school meals for all primary-age students.

BREEAM (Building Research Establishment Environmental Assessment Method)
An international standard for measuring and rating the sustainability and environmental performance of buildings, with an "Excellent" rating often required for new school buildings.

Building Envelope
Refers to the external walls, roofs, windows, and doors that form the outer shell of a building, which should be secure and weather-tight.

Childcare Offer for Wales
A Welsh Government program providing free childcare for eligible working parents of 3- to 4-year-olds, which influences space requirements in schools for early years provision.

Cymraeg 2050
A Welsh Government initiative aiming to have one million Welsh speakers by 2050, impacting space and curriculum planning for Welsh-medium education.

Embodied Carbon
The total greenhouse gas emissions associated with the materials and construction processes of a building. New schools aim to meet targets for reducing embodied carbon.

ICT (Information and Communications Technology)
Technology resources used for educational purposes, often requiring designated teaching spaces equipped with computer workstations or wireless connectivity.

LZC (Low and Zero Carbon) Systems
Systems in schools that reduce or eliminate carbon emissions, including renewable energy sources like solar panels or heat pumps, in line with Wales' Net Zero Carbon goals.

Net Zero Carbon (NZC)
A standard whereby a building produces no carbon emissions as part of its operational energy, a target for all new schools in Wales by 2030.

Operational Energy
The energy used during a building's day-to-day functioning, including heating, cooling, lighting, and appliances.

Plant Room
An area within a school building that houses the mechanical and electrical equipment needed for heating, cooling, water supply, and other essential services.

RIBA Plan of Work
A framework created by the Royal Institute of British Architects (RIBA) detailing stages of building project development, from strategic definition to post-occupancy, used to guide school design processes.

SEN (Special Educational Needs)
Requirements of students needing specialized educational support due to learning, physical, or sensory difficulties.

Supplementary Area
Spaces within a school designated for additional functions beyond the primary educational provision, such as community use, ALN support, or extended school services.

SUDS (Sustainable Urban Drainage Systems)
Water management solutions designed to minimize flood risks and promote groundwater recharge, often incorporated in school grounds.

Universal Design
An approach to building design that makes spaces accessible and usable by everyone, regardless of age, ability, or disability.

Well-being of Future Generations (Wales) Act 2015
A legislative act guiding public bodies in Wales to consider sustainability, community cohesion, and future generations in planning and decision-making, influencing school design.

Zoning
The division of school spaces based on function, allowing specific areas to be adapted for community use, secured separately, or optimized for educational purposes.

Accessibility Requirements
Design criteria that ensure all individuals, including those with disabilities, have full access to school facilities, including ramps, wide corridors, elevators, and accessible toilets.

Alternative Learning Provision (ALP)
Educational programs designed to support students who cannot participate in traditional school environments due to various needs, often integrated into school planning.

Area Sizing Formulae
Specific calculations used in school planning to determine the minimum and maximum space requirements for various types of rooms and school activities.

Building Services
The systems within a school that provide essential services like electricity, water, heating, ventilation, and cooling, often located in plant rooms.

Centralized System
An approach to heating, cooling, or energy management where a single, central source supplies these services across the school, often contrasted with decentralized systems for efficiency and sustainability.

Circulation Space
Areas within a school building that allow for movement between rooms, such as hallways, stairwells, and foyers. Circulation space is a component of the non-net area.

Community Focused Schools
Schools that actively engage with their surrounding communities by offering shared spaces and services, often beyond traditional school hours.

Curriculum for Wales
The educational framework guiding Welsh schools, emphasizing flexible, interdisciplinary learning aligned with the goals of ambitious, capable, and healthy individuals.

Decentralized System
Heating or cooling systems where multiple smaller units are distributed throughout a building, as opposed to a single centralized source, allowing for localized control and potential energy savings.

Dining and Social Spaces
Designated areas within schools for students to eat and socialize, planned to accommodate staggered schedules and meet school meal program requirements.

Educational Change
Modifications in school infrastructure or curricula that respond to policy shifts, technological advances, or evolving educational needs.

Environmental Learning Areas
Outdoor or indoor spaces dedicated to environmental education, which may include gardens, greenhouses, or nature trails.

Feasibility Study
An analysis conducted to assess the practicality of a school building project, considering factors such as site size, budget, and alignment with educational requirements.

Floating Population
Students or staff members who move between different areas of the school due to flexible scheduling, impacting space requirements in common areas.

Flexible Use Spaces
Areas designed to serve multiple purposes, allowing them to be adapted for a variety of teaching or community activities.

ICT Base/Cluster
Areas equipped for ICT instruction or general technology use, sometimes grouped in clusters for shared access among classes.

Inclusive Education
An educational approach that ensures all students, regardless of ability or need, are fully integrated into school life and have access to the full curriculum.

Learning Resource Area
Spaces that include library resources, digital tools, and materials for independent or small group study, supporting the curriculum with flexible, quiet learning environments.

Natural Ventilation
A design approach that uses windows and other architectural features to provide fresh air, reducing the need for mechanical ventilation and supporting environmental goals.

Outdoor Learning Space
Areas on school grounds designated for educational activities, often designed to support environmental learning or physical education.

Peripatetic Staff
Staff members, such as therapists or specialists, who travel between multiple schools or locations, necessitating specific support spaces within schools.

Physical Security Measures
Design features and systems, such as fencing, secure entryways, and alarm systems, that help ensure the safety of school occupants.

Primary School Site Area
The total land area required for a primary school, accommodating both indoor and outdoor facilities as outlined in the area guidelines.

Resilient Design
Design strategies that allow school facilities to adapt to changes or withstand various challenges, such as changes in climate or educational demands.

Social Learning Space
Areas within the school where students can interact informally, often located in common spaces like lounges or foyers to foster community and well-being.

Special Resource Base (SRB)
Dedicated spaces within a school to support students with specific educational or health needs, often part of the supplementary area allocation.

Universal Primary Free School Meals (UPFSM)
A policy mandating free school meals for all primary students, influencing school kitchen and dining area requirements.

Wayfinding
Visual cues, like signs and color-coded pathways, that help individuals navigate a school building, especially important in inclusive and accessible design.

Acoustics (BB93)
Standards outlined in Building Bulletin 93, which define acceptable noise levels in school buildings to ensure a suitable environment for learning and concentration.

Active Learning Spaces
Flexible, interactive learning environments that encourage student engagement and participation, often designed with modular furniture and technology.

Age-Appropriate Design
Considerations in school planning that ensure spaces are suitable for the age range of students, such as smaller furniture for younger children or specialized equipment for older students.

Assessment for Learning (AfL)
An approach that uses regular assessment to support and guide student learning, influencing design for spaces dedicated to student self-assessment and feedback.

Circulation-Based Security
Security design focused on circulation areas (like corridors) to control access and manage movement throughout the building.

Cluster Design
An architectural layout grouping classrooms or spaces around a central shared area to support collaboration and flexible teaching arrangements.

Community Storage
Dedicated storage areas for community use within schools, separate from school resources, often needed for extended community activities or partnerships.

Cross-Curricular Spaces
Flexible spaces designed to support interdisciplinary learning by enabling multiple subjects or themes to be taught in the same area.

Daylighting
The use of natural light to illuminate indoor spaces, reducing the need for artificial lighting and enhancing the learning environment.

Decarbonization
The process of reducing carbon emissions in school operations, which may involve switching to renewable energy sources or improving energy efficiency.

Enrichment Spaces
Areas that support extracurricular or non-core learning activities, such as art studios, music rooms, or science labs, enhancing the breadth of student learning experiences.

Fixed Furniture
Built-in or permanently installed furniture, such as lab benches or shelving, that is typically less adaptable for flexible space use.

Floating Classrooms
Classrooms not assigned to a specific teacher or subject, allowing for flexible use across different classes and reducing the need for dedicated spaces.

Foundation Phase
In Wales, the early years educational framework for children aged 3 to 7, influencing the design of play-based, flexible spaces.

Inclusive Play Areas
Outdoor or indoor play spaces specifically designed to accommodate children of all abilities, often incorporating accessible play equipment and sensory features.

Intelligent Building Systems
Technologies integrated into school buildings, such as automated lighting or climate control, which help improve energy efficiency and user comfort.

Learning Hubs
Centralized areas within a school where students gather for collaborative or independent study, often equipped with ICT resources and adaptable furniture.

Multi-Use Games Area (MUGA)
A versatile outdoor sports area that accommodates multiple sports, commonly found in schools to maximize the use of space for physical education.

Net Capacity Assessment
A calculation used to determine the capacity of a school building based on usable floor space, ensuring facilities align with student needs and legal requirements.

Passive Solar Design
Architectural techniques that use sunlight for natural heating and lighting, often integrated into sustainable school building designs.

Performance Standards
Specific benchmarks or standards that school buildings are designed to meet, including acoustic, environmental, and security standards.

Play-Based Learning
An educational approach, especially relevant in early years, that uses play as a central learning method, influencing the need for flexible and interactive spaces.

Quiet Rooms
Dedicated spaces within a school for students needing a low-stimulation environment, often used for relaxation or one-on-one support.

Specialist Teaching Space
Rooms with specialized equipment and layouts for subjects like science, technology, and the arts, ensuring they meet the specific needs of each subject.

Transition Spaces
Areas that support students' movement between different activities or stages of learning, such as outdoor-to-indoor transitions or classroom-to-cafeteria routes.

Ventilation Strategy (BB101)
Guidelines outlined in Building Bulletin 101, focusing on achieving healthy indoor air quality through effective ventilation in school environments.

Wayfinding Strategy
A planned system of signage, color-coding, and spatial design elements that help students, staff, and visitors navigate the school premises easily.

Wet Areas
Spaces designed for activities involving water or liquids, such as art rooms or science labs, often requiring specific flooring and drainage systems.

Zoning for Flexibility
Dividing the school into zones based on function, age group, or activity type to create adaptable spaces that can meet a range of needs and facilitate learning.

Activity Studio
A versatile indoor space typically used for physical education, dance, or drama, designed to support a range of physical activities and community events.

Breakout Space
Smaller areas adjacent to classrooms or learning hubs where students can work in small groups or independently, often used for differentiated instruction or specialized support.

Carbon Neutral
A building or process that achieves net-zero carbon emissions, balancing carbon produced with carbon offset, critical for meeting environmental targets in new school buildings.

Capacity Benchmarking
The process of assessing the space needs of a school based on projected student numbers, ensuring facilities meet current and anticipated demand.

Controlled Access
Security protocols ensuring only authorized individuals can enter specific parts of the school, often through key card systems or monitored entry points.

Flexible Partitioning
Movable walls or dividers that allow a single large room to be split into smaller spaces, supporting varied classroom activities or community use.

Future-Proofing
Design considerations that allow a building to adapt to future educational or technological changes, such as modular layouts and capacity for technology upgrades.

High-Capacity Kitchen
A kitchen designed to accommodate high volumes of meal preparation, often necessary in schools offering Universal Free School Meals or serving large student populations.

Learning Plaza
An open-concept learning area that combines multiple classroom functions, facilitating collaboration and flexible use across classes and subjects.

Natural Surveillance
A design approach that maximizes visibility in and around school buildings to enhance safety by allowing occupants to see and monitor surrounding areas.

Outdoor Play Zone
Areas designated for recreational use, often separated for age-appropriate play and safety, including structures like playgrounds, sports fields, or sensory gardens.

Safe Room
A secure space designed for emergency use, where students and staff can take refuge if needed, equipped with specific safety features as part of a security strategy.

Site Constraints
Limitations of the school site, such as size, topography, or surrounding infrastructure, impacting building design and area allocation.

Spatial Requirements
The specific area allocations needed for each type of school space (e.g., classrooms, halls, labs) based on function and policy guidelines.

Specialist FF&E (Furniture, Fixtures, and Equipment)
Custom or specialized furnishings and equipment required for specific subjects or activities, such as science labs or design technology rooms.

Storage Density
The amount of storage space needed per classroom or activity area, often included in area guidelines to ensure adequate space for educational materials and equipment.

Universal Access
A design principle ensuring all areas of the school are accessible to everyone, regardless of ability, covering mobility needs, signage, and inclusive layouts.

Weighted Criteria
Factors considered in funding and design decisions, where certain priorities (e.g., Welsh language provision, ALN needs) may be given extra emphasis.

Whole-School Assembly Area
A large hall or auditorium space capable of accommodating the entire school population for events, often adaptable for exams, performances, and community use.

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Haverfordwest High VC School Interior Shot