



An Roinn Oideachais
Department of Education

School Design Guide

SDG-02-04

Primary & Post Primary School Specialist
Accommodation for Pupils with Special
Educational Needs

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1. BACKGROUND TO LATEST REVISIONS

The Department of Education (DoE) has an ongoing policy of updating its Technical Guidance Documents (TGDs) and School Design Guides (SDGs). Since the introduction of the original TGD-026 guidance document on the 29th May 2012, provision of locally based special classes in mainstream schools has been successfully delivered. These Special Educational Needs (SEN) accommodation projects vary in size and complexity, and are located in primary and post primary schools across the country.

Following feedback from school authorities and a review of a sample of completed projects, a number of common themes and points emerged in relation to SEN accommodation. These prompted revisions to the Schedules of Accommodation for Primary and Post Primary SEN accommodation. This SDG has benefited from contributions and review by the Planning & Building Unit, the Inspectorate and the National Council of Special Education (NCSE). This document is revised to reflect these revisions and provides further guidance for school authorities and Design Teams.

2. INTRODUCTION

2.1 PURPOSE OF THIS DOCUMENT

The revised guidance document provides information on space planning and design for school authorities and design teams for the provision of inclusive SEN (Special Education Needs) accommodation in primary and post primary mainstream schools as outlined in Section 2.2 below. The guidance is to be used in the design of new school buildings and extensions to existing schools. Some guidance is also provided with regard to the remodelling of existing school accommodation to suit SEN requirements and SEN temporary accommodation needs. It is not intended to be prescriptive for all scenarios but instead to offer guidance that will deliver optimum inclusive school environments for all pupils. Design proposals will evolve through close consultation with schools and taking site specific factors into consideration.

These guidelines reflect many of the recent changes in the educational system in Ireland, changes that have placed greater demands on schools for additional space to provide for a growing range of teaching and support services, or as advised in writing by the Department. The DoES is committed to developing inclusive accommodation provision and standards for pupils with SEN to compliment the mainstream school building environment.

2.2 APPLICATION OF THESE GUIDELINES

- a. This guidance is applicable in full to the provision of SEN accommodation in primary and post primary schools as part of a new school building project. Where feasible, the guidance is also applicable to provision of SEN accommodation as an extension project to an existing school.
- b. Where the optimum solution for SEN accommodation provision includes for the re-purposing of existing school accommodation, the principles contained in this guidance are applicable. A pragmatic approach that optimises the use of available space in schools plays an essential role in the provision of inclusive SEN accommodation and the sustainable development of schools in general. The viability of each project must be explored at the outset by means of a costed feasibility study. Any operational impact of construction work on an occupied school, should also be assessed.
- c. Where SEN accommodation is to be provided in temporary accommodation, the principles contained in this guidance are applicable and refer to specific guidance contained in *Section 5* below.
- d. Where projects requiring SEN accommodation are in advanced stages of architectural design, and

the school authorities wish to incorporate some elements of this guidance in a cost effective way into their project. A short report outlining the changes proposed to be incorporated, together with their projected cost, should be submitted to the DoES for consideration, and where there is no objection to their inclusion, the addition of these items can be formally dealt with by way of a request for a Brief Change.

e. For projects currently in the design process they shall be implemented as follows:

- **Projects where Stage 1 is in preparation:**

This guide, *SDG-02-04* shall be implemented and addressed in the design development of Stage 2a.

- **Projects where Stage 2a and 2b is in preparation:**

Where time allows and the implementation of these guidelines is not likely to contribute to delays in the preparation of a Stage 2a or 2b submission they should be incorporated into the stage submission.

- **Projects at Stage 3 and Stages 4 & 5 where tenders have been awarded:**

The project should proceed without any amendments to tender documentation.

f. These guidelines will be modified and updated on an ongoing basis, and as needs arise. These guidelines do not purport to be definitive or exhaustive, but rather are intended to assist in the planning of an appropriate response to the particular needs of individual schools and also the needs of the DoES.

g. School authorities and their Design Teams should ensure that the *DoES Technical Guidance Documents (TGDs)*, *School Design Guidelines (SDGs)* and *Design Team Procedures (DTPs)* National Building Regulations, *Local Authority Planning & Development Guidelines* and project norms generally are applied in full to the project. Where a potential conflict arises between the application of the DTPs' and the SEN aspect of the project, clarification should be sought in writing from the DoES. The DTPs should be applied in full unless otherwise directed by the DoES.

2.3 KEY OBJECTIVES

a. *The Education for Persons with SEN (EPSEN) Act 2004* provides for more inclusion for children with special educational needs. Under the Act, pupils with SEN will be educated "in an inclusive environment with children who do not have SEN", unless this should be inconsistent either with the best interest of the child, or with the effective provision for the other children. Under the Act, people with special educational needs shall have the same right to avail of and benefit from education, as do their peers who do not have such needs, to assist children with special educational needs to leave school with the skills necessary to participate, to the level of their capacity, in an inclusive way in the social and economic activities of society, and to live independent and fulfilled lives.

b. In developing an approach to the design of facilities for pupils with Special Education Needs (SEN), it is important to have a shared understanding of what is meant by the term SEN and what is endeavoured to be achieved in developing this particular approach. Pupils with SEN have many characteristics in common with each other and with those who do not have SEN. It is however acknowledged, that pupils with SEN form a heterogeneous group with each pupil having distinctive individual and specific strengths and needs. Please refer to *Section 4.1 Design Approach* herein for further information on approaching design for pupils with SEN.

- c. There are three key objectives in meeting the challenges posed by providing for pupils with SEN. These are concerned with promoting the principles of:
- **Inclusivity** - Recognising and accepting diversity; valuing each pupil as an individual. A well designed accessible school, removes barriers and allows pupils with SEN take part in school activities alongside their peers.
 - **Flexibility** - Schools need to be flexible for everyday use and adaptable over time to meet the current and future needs of children with SEN or for re-use as mainstream accommodation if required. Approaches include: rationalising spaces so their functions can change over time, minimising fixed furniture and fittings so spaces can be modified to suit different user groups and for different purposes.
 - **Universal Design** - Universal Design is defined as *“the design and composition of an environment so that it may be accessed, understood and used:*
 - i. to the greatest practicable extent,
 - iii. *in the most independent and natural manner possible,*
 - iv. *in the widest possible range of situations and*
 - v. *without the need for adaptation, modification, assistive devices or specialised solutions, by persons of any age or size or having any particular physical, sensory, mental health or intellectual ability or disability.”*

When applied to schools, Universal Design means that all aspects of the school, from the physical design of the buildings to the management and maintenance of the site, should provide the least restrictive environment to the full range of users (students, staff and visitors).

- d. Specialist accommodation for pupils with SEN may be used in a variety of ways depending on the pupils' particular requirements. For example, there may be a group who use the space for all of the school day, some (or all) of whom may join the mainstream group for some subjects. Alternatively pupils may attend the mainstream school and only spend an allocated number of hours per week in SEN accommodation to assist in achieving an optimal educational outcome for their individual needs. From time to time 'reverse integration' may take place, i.e., where mainstream pupils are included with pupils with SEN for curricular activities. Flexibility to adapt the teaching space is therefore critical in order to facilitate 'reverse inclusion' taking place in the accommodation that has been designed for pupils with SEN.

2.4 RELEVANT GUIDANCE DOCUMENTS

This guidance document is part of a suite of [DoES Design Guidance Documents for Primary and Post-primary schools](#) and shall be read in conjunction with these documents.

School authorities and their Design Teams will be obliged to comply in full with the DoES DTPs, SDGs & TGDs which are published and updated from time to time by the DOES. They should also refer to the DoES website www.education.ie for further details and technical guidance information before commencing. The Department of Education welcomes feedback and suggestions on how to improve this guidance.

2.5 FURTHER INFORMATION

Planning & Building Unit
Department of Education,
Government Buildings,
Central Business Park,
Clonminch Road,
Tullamore,
Co Offaly.
R35 Y2N5



T: (057) 9324300

W: <https://www.education.ie/en/School-Design/>

3. PROJECT BRIEF

3.1 BRIEF FORMULATION

- a. The DoES Planning & Building Unit (PBU) will issue a *Schedule of Accommodation* for the project to the School authority, for their written acceptance. Funding will only be provided once a decision to commence architectural planning has been confirmed in writing by the PBU. Detailed architectural planning should not commence until such time as the PBU has agreed in writing the project brief and budget costs.
- b. The accommodation suite for pupils with SEN will be an integral part of any new school building or integrated as an extension to an existing school. The accommodation will always be linked to the existing building. It is a priority that SEN accommodation is in a location that promotes inclusivity and integration and provides access to ancillary facilities within the existing school. Where this cannot be achieved due to site restrictions or existing building layout – consideration can be given to re-designation of existing appropriately sized rooms within the school for SEN use and construction of replacement accommodation. Where vacant spaces exist in a school, funding for the renovation of this space for SEN accommodation is encouraged and can be complimented by additional accommodation in the form of a linked extension where required.
- c. The specific design brief for each project will detail the nature of the class or classes concerned as well as the prevailing pupil teacher ratio for such classes. However, broadly speaking, special educational accommodation provision in primary and post primary schools may be required to cater for pupils who have been assessed as having special education needs; physical or sensory disabilities; emotional or behavioural disorders; being on the autistic spectrum or having multiple disabilities.
- d. SEN accommodation such as outlined in this brief may not be required for mainstream schools supporting pupils with a borderline or mild general learning disability, specific speech and language disorder or specific learning disability. In such situations, the provision of mainstream classrooms and adequate supporting teaching spaces (SET Rooms) will enable a school to meet the needs of these pupils.

3.2 SCHEDULE OF INTERNAL ACCOMMODATION

- a. *Schedules of Accommodation* are available for suites of SEN accommodation based on the number of Class Bases and ancillary accommodation requirements appropriate to each project. These can include accommodation for *Early Intervention Classes* at Primary School Level with a combination of one or more Classrooms for older pupils.
- b. *Early Intervention Classes* are provided for pre-school children aged 3-5 that are on the autism spectrum and also for children with hearing impairments. They follow the Junior/Senior Infant day and are intended to provide early support for these children. Careful consideration to be given to the layout of this suite of accommodation and separation from senior SEN classes required due to pre-school pupil age and vulnerability. It is not intended that Central Activity Area, toilets and ancillary rooms be shared with adjoining primary school classrooms. Separate entrance and secure play area appropriate for younger pupils directly accessible from the Classroom is to be included. Please refer to *Appendix A* for an exemplar plan.
- c. The number of Classes needed in any SEN base is determined by the National Council for Special Education (NCSE) and a recommendation made by the local Special Education Needs Organiser (SENO) for the school to apply for the necessary accommodation to service this requirement.

The *Schedules of Accommodation* have been revised and are available for a range of different accommodation needs varying from 1 Classroom upward and including Early Intervention where specified. The *Central Activities Space* is included where a minimum of 2 Classroom Bases is provided. It is to be noted that the Safe Space has been re-designed as a *Quiet Space* that is not a separate room and is part of the Classroom base. A *Daily Living Skills* space connected to the *Central Activities Space* is now provided at Primary as well as Post Primary level. Following feedback from schools, it is recognised that Living Skills is a vital skill to be taught at all ages and not just for older pupils.

- a. Please refer to Tables below for an accommodation suite for sample 2 Classroom SEN base Schedule of Accommodation for Primary and Post Primary and a 4 Classroom SEN for Post Primary.
- b. Please note that the current pupil/teacher ratio for special classes for pupils with SEN ranges from 6:1 to 11:1.
- c. Please refer also to *Appendix A* for Exemplar Plans and Case Studies.

**2 Classroom Schedule of Accommodation
Primary**

Special Educational Needs (SEN) Base

Item No.	Name	Area (m ²)
1	Central Activities Space	80.00
2	Classroom- Base 1 (excluding toilets & storage)	70.00
3	Classroom- Base 2 (excluding toilets & storage)	70.00
4	Toilets & Shower Area <i>1 x Toilet/Shower for Assisted Users</i> <i>1 x Independent Use</i> <i>1 x Ambulant Disabled</i>	20.00
5	Quiet Space 1- associated with Class Base 1	12.00
6	Quiet Space 2- associated with Class Base 2	12.00
7	Multi Activity Room	20.00
8	Staff Toilets	10.00
9	Storage	25.00
10	Cleaner Store	5.00
11	Office	20.00
12	Daily Living Skills	15.00
	Sub-Total	359.00
13	Internal Walls & Partitions @ 7%	25.13
14	Circulation @ 21%	75.39
	Total	459.52
	Total Rounded Off	460.00
	External	
15	Secure external classroom/play area	50.00 per classroom
16	Sensory Garden (where school site area permits)	100.00
17	Parking Spaces	6

2 Classroom Schedule of Accommodation Post Primary

Special Educational Needs (SEN) Base

Item No.	Name	Area (m ²)
1	Central Activities Space	80.00
2	Classroom- Base 1 (excluding toilets & storage)	70.00
3	Classroom- Base 2 (excluding toilets & storage)	70.00
4	Toilets & Shower Area <i>1 x Toilet/Shower for Assisted Users 1 x Independent Use 1 x Ambulant Disabled</i>	20.00
5	Quiet Space 1- associated with Class Base 1	12.00
6	Quiet Space 2- associated with Class Base 2	12.00
7	Multi Activity Room	20.00
8	Staff Toilets	10.00
9	Storage	25.00
10	Cleaner Store	5.00
11	Office	20.00
12	Daily Living Skills	15.00
13	Practical Activity Room	50.00
Sub-Total		409.00
13	Internal Walls & Partitions @ 7%	28.63
14	Circulation @ 21%	85.89
Total		523.52
Total Rounded Off		524.00
External		
15	Secure external classroom/play area	50 per classroom
16	Sensory Garden (where school site area permits)	100.00
17	Parking Spaces	6

4 Classroom Schedule of Accommodation Post Primary

Special Educational Needs (SEN) Base

Item No.	Name	Area (m ²)
1	Central Activities Space	80.00
2	Classroom- Base 1 (excluding toilets & storage)	70.00
3	Classroom- Base 2 (excluding toilets & storage)	70.00
4	Classroom- Base 3 (excluding toilets & storage)	70.00
5	Classroom- Base 4 (excluding toilets & storage)	70.00
6	Toilets & Shower Area <i>1 x Toilet/Shower for Assisted Users 2 x Independent Use 2 x Ambulant Disabled</i>	30.00
7	Quiet Space 1- associated with Class Base 1	12.00
8	Quiet Space 2- associated with Class Base 2	12.00
9	Quiet Space 3- associated with Class Base 2	12.00
10	Quiet Space 4- associated with Class Base 2	12.00
11	Multi Activity Room	20.00
12	Staff Toilets	10.00
13	Storage	25.00
14	Cleaner Store	5.00
15	Office	20.00
16	Daily Living Skills	20.00
17	Practical Activity Room	50.00
Sub-Total		588.00
13	Internal Walls & Partitions @ 7%	41.16
14	Circulation @ 21%	123.48
Total		752.64
Total Rounded Off		753.00
External		
15	Secure external classroom/play area	50 per classroom
16	Sensory Garden (where school site area permits)	100.00
17	Parking Spaces	12

4. DESIGN

4.1 DESIGN APPROACH

- a. The School building should provide a welcoming, safe and suitable environment for the educational needs of all pupils, including those with Special Educational Needs. It should be free from barriers and enable users to participate in and benefit from all aspects of school life. A well-designed environment enhances the educational experience for all pupils, including those with SEN.
- b. In developing an approach to the design of facilities for pupils with Special Education Needs (SEN), it is important to develop an understanding of what is meant by the term SEN and the design considerations that are critical to this approach.

There is a wide spectrum of special educational needs, pupils with SEN have needs and requirements which may fall into at least one of four areas:

- Cognition and learning
- Behavioural, emotional and social
- Communication and interaction
- Sensory and/or physical

Many pupils have inter-related needs. For example, a pupil with general learning difficulties may also have a sensory impairment. Some pupils with sensory impairments need extra space to allow them to negotiate their environment independently and ensure greater personal space.

Pupils who have difficulty with aspects of communication, speech and language require enhanced quality acoustics. Good acoustics and sound insulation – between rooms and from outside noise – is essential for their access to learning. Poor acoustic conditions, such as noise distraction and high ambient noise levels, are unacceptable in SEN accommodation.

Pupils on the autism spectrum can suffer increased stress and anxiety if a building is difficult to understand. Clarity in the layout of the school will help to provide easily navigable environments where all users can orientate themselves easily in the school. Attention should be directed to providing visual structure and creating a predictable and structured school and classroom environment.

Conversely pupils who have a visual impairment will have a greater dependency on auditory and tactile cues within the building and its design should reflect this need.

4.2 DESIGN CRITERIA

- a. Designing accommodation for pupils with different SEN will present many challenges in resolving spatial design. Key design criteria to be taken into early consideration are:
 - Optimum location of SEN accommodation – Close to main entrance and quieter locations (not remote or isolated) are required, with safe, contained outdoor space accessible from the SEN accommodation. Refer to 4.3 below.
 - Accessibility - A simple, clear layout, easily understood by all users. It is important that effort is made to ensure that circulation around the school is as clear and comprehensible as possible avoiding complex layouts.

- Accessible Sanitary facilities, provided at convenient intervals around the school and integrating them sensitively into the design proposal. Hygiene and infection control in relation to robust finishes, ease of cleaning/maintenance and environmental services.
 - Acoustic treatment - acoustic absorption, reverberation time and sound insulation for walls, floors and ceilings.
 - Storage- for equipment and a wide range of teaching resources. Sufficient storage space is vital to support learning, teaching and school management.
 - Lighting levels - Control of natural light and shade, appropriate levels of glare-free controllable lighting etc.
 - Ventilation, Sensory Environment and Thermal comfort.
 - Successful wayfinding, signage, clear routes.
 - Use of appropriate finishes, colour and colour contrast including avoidance of strong patterns and textures.
- b. It is important that the layout and quality of the design provides flexibility for the school and support staff in adequately supporting pupils. For example, the classroom layout may change on a regular basis according to needs. Fixed partitions and immobile furniture are not recommended as they do not offer the required level of flexibility to adapt the space. The environment also needs to be sufficiently robust to create a responsive, safe and secure environment for staff and pupils in managing behaviours of concern.
- c. The layout of accommodation should ensure that staff are in a position to supervise all activities in an unobtrusive manner at all times. The provision of adequate visual connection between spaces is very important within and between classrooms and the immediately adjacent spaces, e.g. the Small Quiet Space, toilet areas etc. Hidden areas should be eliminated at the design development stage.
- d. The location of the SEN accommodation off a main circulation area must not impact on the means of escape strategy from the main school in the event of an emergency. The design of circulation must equally maintain the security requirements of the SEN accommodation at all times.
- e. Design Teams should adopt a pragmatic, cost effective approach to ensure the continuum of design solution flows seamlessly from accommodation for pupils with SEN out into the mainstream school, particularly in spaces where these pupils will require regular access, for example the General Purpose (GP) Room in primary schools, Physical Education (PE) hall in post primary schools and circulation areas.

Most of these principles will naturally flow out into the mainstream accommodation without any additional cost, for example, the types of floor finishes, choice of colour etc.

4.3 LOCATION OF ACCOMMODATION

- a. Design Team members are advised to carry out a risk assessment of the general site conditions to identify the optimum location for the SEN accommodation. An evaluation of existing site restrictions around the school and plan for risk mitigation or elimination is required. A typical example would be a natural watercourse or stream flowing through or adjacent to the site, or a pond or open fire fighting reservoir, proximity to public road and traffic. Such items might pose unacceptable risks which should

be designed out. Safety and security is of paramount importance when dealing with vulnerable children who may have difficulty comprehending the dangers inherent in the environment.

- b. Permanent accommodation for pupils with SEN should never be provided in a stand-alone building.
- c. In all new school building projects the accommodation suite for pupils with SEN must be appropriately located within the school in order to promote and develop inclusivity. It should not be located in a remote or isolated part of the building or site where contact and social development opportunities with the main school population would be impossible to promote.
- d. For extensions to existing buildings, it is recognised that it may not be always possible to locate the proposed SEN accommodation close to the entrance or in a location which allows opportunities to develop inclusivity, nevertheless every effort should be made to achieve this goal. Where this cannot be achieved re-designation of an existing area in the school for SEN accommodation can be considered and replacement accommodation proposed as new build extension.

In some cases it may not be possible to provide the full range of accommodation due to local factors such as restricted site conditions, etc. A pragmatic cost effective solution will be expected in each case and the accommodation brief and design criteria to be applied must be signed off by the PBU at Stage 1 of the design process.

- e. The accommodation for pupils with SEN should, where practicable, be located close to the main school entrance. All pupils in the school, regardless of ability, should enter via the main entrance to the school building on a daily basis. Way finding should be clearly visible from the main approach.
- f. Pupils with SEN can benefit from having access to a separate secondary entrance on occasion. An alternative controlled, secure external entrance into the accommodation for pupils is required. The location should be within close accessible distance to the designated set-down and pick-up area and agreed with the school authority.
- g. SEN accommodation should be located and designed in a manner which facilitates discreet screening from other school users along the external areas around the school to avoid unnecessary distraction and disturbance. School users, by definition, can include other pupils, staff, waiting parents, etc. As a rule, people waiting outside the building should not be able to look directly into SEN classrooms, observe pupils at play, etc. This is an unnecessary distraction for both pupils and teachers.
- h. Accommodation for pupils with SEN should normally be located at ground floor level with direct access to secure external play areas. Where, due to site or other constraints, this is not possible the school should seek written approval from the DoES for an alternative approach. This should be obtained before proceeding with any design development work.
- i. SEN accommodation can form part of a multi-storey building and does not need to be single storey. Mainstream accommodation can be proposed above the SEN accommodation.

4.4 FIRE SAFETY & MANAGEMENT

- a. Pupils with SEN have particular needs and requirements which must be properly managed in the event of an emergency in the school.
- b. In some cases these needs and requirements conflict with the fire safety strategy being developed for the design and the fire safety certificate application. A prime example of this is the use of electronic door controls as a means of providing a secure environment.
- c. It is strongly advised that the school authority (where it already exists), works with the Design Team at the outset to develop their mission statement and their management strategy for the school.
- d. A meeting should be arranged at the earliest opportunity with the local Fire Officer which should be attended by members of the school authority/teaching staff involved in SEN teaching and the Design Team Architect so that all potential conflicts are resolved and that a fire safety certificate can be granted without difficulty. Where no school authority exists, the Design Team should meet with the local Fire Officer at the earliest opportunity to discuss the proposal.
- e. Where possible external doors in Class Safe Bases should not be designated fire escape doors in the emergency fire evacuation strategy for the building.
- f. Where the Design Team believes there may be difficulties in securing a valid Fire Safety Certificate which embraces the requirements of this document they should revert to the school authority/DoES for further guidance.

4.5 EXTERNAL PLAY AREA

- a. Appropriate provision for external play will be provided within site constraints and this is set out in the Schedules of Accommodation in Section 2, Project Brief above. The amount of area for external play is additional to the standard hard play allowance provided for the mainstream school element and is intended as an external breakout space from the classroom, 50m² per classroom is allowed. No separate 200m² SEN play area is to be provided. The smaller external classroom areas can be linked to the sensory garden and to the larger play area for the entire school population. This hierarchical approach to play space provides choice for the pupil with SEN and more scope to determine their level of social interaction.
- b. External play should be provided in a location which is ideally directly accessible from the classroom or Central Activity Space. The allowance for play space can be split into separate age appropriate areas if preferable to the School Authority. The location of the play area should take into consideration best practice for outdoor play areas and ensure an environment that is not exposed to the elements.
- c. Sensory play areas can be divided into hard and soft play sections. Where specialist play equipment is provided, the Design Team shall consult with the school authority at the outset regarding the range and type of equipment to be provided. Adequate provision must be allowed for the fixing of equipment into the hard and soft surfacing as part of the construction stage, and the play equipment fitted into sockets etc., once construction is complete. This is a matter for co-ordination to be overseen by the lead consultant.
- d. Consideration should be given towards the creation of a shaded outdoor area for pupils with photophobia. The surface of a playground may contain particles that may, in strong sunlight, make it dazzling for pupils with photophobia, and there is a need to assign a quiet area as well as an active area to

prevent more active pupils knocking into more vulnerable pupils whilst playing.

- e. The boundaries of dedicated play areas for pupils with SEN should be defined using suitable secure and visually attractive fencing. The fence design should not encourage or facilitate climbing. Tamper-proof gate latches should be used. Enclosed courtyards should also be considered for secure play.
- f. The design and layout of these secure external play areas should ensure that there are no hidden areas where the pupil is out of view of the supervising staff.

4.6 SENSORY GARDEN

- a. A Sensory Garden should be incorporated as a secure external resource where the school site area permits. This should be prepared and left ready for planting. The school authority will be responsible for the selection, provision and installation of appropriate planting. The intention is that this is a resource that can be developed over time by the school. The Sensory Garden must be fully wheelchair accessible.
- b. A Sensory Garden stimulates the senses. Hard and soft landscaping – fountains, raised wheelchair accessible planted beds, pergolas (climb-proof), wind chimes, foot chimes, bird tables, etc., can be used in a variety of ways to provide experiences involving seeing, smelling, hearing, and touching. Pupils should be encouraged to interact with the plants, touching and smelling them. Space to sit down, picnic, watch wildlife, listen to sounds, etc. should be considered within the layout. This is a resource to be enjoyed by all and developed over time by the School.
- c. Provision should be made for a water supply and electrical services to accommodate a water feature should this be required. Design Teams are advised to separate the Sensory Garden from the soft play area with secure fencing and a lockable gate so that the Sensory Garden can be self-contained and access controlled by staff.

4.7 BUILDING ELEMENTS

4.7.1 WALLS

- a. All internal block walls throughout the SEN accommodation (except storage) should have a smooth plaster finish.
- b. All internal dividing walls throughout the SEN accommodation shall be of solid construction, with a smooth plaster finish or equivalent. The form of construction used should allow for the chasing of walls and recessing of radiators etc. All internal walls in areas to which a child has normal access should be plastered.
- c. Surface mounted conduit must not be used in the specialist accommodation for pupils with SEN.
- d. Where it is proposed to use dry-lining or plasterboard stud-partitioning, a high-impact board finish must be specified. The fixing positions for all wall mounted equipment must also be considered, agreed with the school and taken into account in the design of the wall structure.
- e. Design Teams should consider the inclusion of tactile trails or handrails as an aid for pupils with a visual impairment to assist mobility within the school environment. Walls along routes which are selected for tactile trails or handrails should be free from obstructions such as fire extinguishers, coat rails, radiators, display boards, cupboards, etc.
- f. Walls in en-suite sanitary facilities must be capable of supporting a track hoist system and a live load of 200kgs maximum.

4.7.2 CEILINGS

- a. It is recommended that the ceilings of all teaching, ancillary and circulation spaces within the SEN accommodation to which the pupils will have normal access should have an acoustic A rated suspended ceiling with a concealed grid or A rated acoustic plasterboard. Ceilings in the toilet areas should have moisture resistant tiles in addition to the acoustic requirements. There may be a need for localised secondary steel to support track hoist system or other specialised equipment.
- b. In areas where local access is required to heating control valves or other pieces of equipment for future maintenance i.e. in the ceiling of a link corridor or toilet area, the ceiling in these locations can be an exposed grid suspended ceiling. This is to avoid classroom disturbance during emergency servicing and eliminates the need for a ceiling access trapdoor within a classroom.

4.7.3 FLOORING & FLOOR COVERINGS

- a. Floor finishes generally should be multi-purpose impact-absorbing acoustic linoleum or vinyl with a minimum slip rating of R9. Floors in wet areas should have a non-slip vinyl finish with a minimum slip value of R10 with a minimum SRV 36. Carpet can be considered in admin/office areas.
- b. Many mainstream schools can have a range of geometric shapes and patterns in both wall and floor finishes. For some pupils with SEN, these design choices would be counterproductive as they introduce a level of visual complexity that pupils may have difficulty processing. Plain non-patterned finishes should therefore be specified.
- c. Changes in colour in floor coverings to denote changes in areas, can assist pupils with low vision or visual impairment in locating places, steps or edges, that might otherwise visually merge into the rest of the floor.
- d. In the Toilet/Shower for Assisted Users the floor should be designed as part of a wet room design with coved skirtings. The defined shower area within this space should have an enhanced slip resistance of minimum R11.

4.7.4 JOINERY

- a. Sharp protruding edges should be avoided.
- b. Storage generally should extend from floor level up to 2.2m high.
- c. Doors to storage units should be capable of being key lockable.
- d. Sliding doors are not recommended for built-in storage units, particularly in classrooms. The repetitive action of the constant motion of a door leaf can create sensory difficulties for some pupils.

4.7.5 GLAZING/WINDOWS/SCREENS/DOORS

- a. Safety glass must be used throughout the accommodation suite in all accessible low level in external double glazed windows and doors. For internal screens and windows safety glass should also be specified. The use of Georgian wired glass, for example, is not recommended in doors and screens where there is a risk of damage and breakage from pupil activity.
- b. Design Teams must avoid large 'panoramic' areas of glass in windows and screens. The overall window frame within the wall should have adequately spaced glazing mullions & transoms, sufficient to break

the structural opening into manageable glazed sections. This will facilitate natural ventilation through opening sashes, add strength to the window frame in the event of an impact, and reduce the potential maintenance costs of replacing large areas of glass.

- c. In order to meet the needs of some pupils with SEN it will be necessary to direct particular attention to creating a responsive, safe and secure environment in order to assist pupils and staff in the management of behaviours of concern. It is important that, in carrying out a risk assessment, critical areas are identified and the risks mitigated or eliminated. Broken glass can also cause serious injury. It is critical therefore that the design and specification of glass and frame is taken into account in the design.
- d. High level windows should be controlled using a proprietary mechanical winding system, placed either in the window reveal or at high level on the wall, above the normal pupil's head zone height. Electrically operated systems are expensive to install and maintain and should be avoided.
- e. Care is also required when designing the opening sashes of windows at head height level. Consideration should be given to the external environment immediately outside the windows. Design Teams must ensure open projecting sashes do not pose an unacceptable risk for pupils with visual impairment who might injure themselves passing by outside on the path or at play.
- f. Doors generally onto circulation should have a vision panel.
- g. All doors should have protective finger guards along the hinged edge of the door for safety reasons.
- h. Doors in stores and small spaces should be capable of opening outwards.
- i. The door swing and direction of opening should be designed so that they cannot be barricaded shut or blocked from opening by a pupil.

4.7.6 IRONMONGERY

- a. The use of door-closers needs to be carefully considered. Pupils may try to close the door behind them, as they might normally do at home. Door closers restrict them doing this which can in turn lead to breakage of the closer with resulting maintenance problems. Design Teams should carefully consider the use of door closers balanced with the fire safety requirements, with a view to eliminating them through other fire engineered strategies.
- b. Surface mounted door closers with projecting arms can present a health and safety risk. The Design Team should consider other forms of concealed closers for all spaces within the SEN accommodation to which a pupil will have access.
- c. The use of panic-bolt operated emergency exit doors needs to be carefully considered. Suitable means to control the opening of emergency exit doors must be considered, whilst equally addressing the fire safety requirements on means of escape.
- d. Electronic door controls, which are linked back to the fire alarm system as part of the fire safety strategy, should be provided at the main internal and external entrance/exit points to the SEN accommodation where no other alternatives are acceptable to the local Fire Officer. Keypad controls on doors are not recommended.
- e. Door furniture should be of similar design throughout the school building including the accommodation for pupils with SEN.

- f. Domestic type ironmongery fittings must never be specified or used. All door furniture specified must be fit for the intended purpose.
- g. The location and height of lever furniture on the classroom door leaf requires careful consideration. The appropriate design and location of the door handle or handles on all doors help prevent this. One option which can be considered is the use of twin lever handles on the door leaf – one at normal height, the other at a higher level. The action of both handles is required to open the door. The upper latch can be disengaged if considered unnecessary.

4.7.7 COLOUR SCHEMES, WAY FINDING & SIGNAGE

- a. Colour schemes chosen must not unduly impact on those with limited vision and must not over stimulate pupils with sensory sensitivities to environmental stimuli. It is recommended that the design solution accommodates the needs of all pupils with SEN. Where applicable visiting teachers for Blind/Vision Impaired can have a role to play in advising appropriate colours.
- b. Many mainstream schools employ a range of bright, diverse colours. It is generally agreed that, for the accommodation for pupils with SEN, a muted, subdued palette of colour — pastels, earth tones, neutral colours — and plain, non-patterned finishes are sensible choices. This allows the teaching staff to introduce bolder primary colours into the teaching environment according to the sensitivities of individual pupils.
- c. Colour choice, contrast, and texture finish should be considered in an imaginative way as a means of assisting mobility and wayfinding around the whole school.
- d. Some pupils with SEN, for example, can find their way around the building using colour, texture, and coding. Contrast between wall and floor planes will greatly assist pupils with visual impairments. Decisions on this approach must always be taken in consultation with the school authority.
- e. The Design Team shall ensure that all signage provided is in compliance with the *Official Languages Act 2003*.
- f. Internal signage should be clearly legible using a clear font type (for example Arial or other suitable San Serif font), on a contrasting background. Signage should be placed at a height which will avoid hazards whilst taking ease of reading and viewpoint into consideration. Both tactile lettering, symbols and Braille should be used. Further information on accessible signage and building design for pupils with visual impairment can be obtained by reference to the National Council for the Blind of Ireland (NCBI) at www.ncbi.ie and *BS 8300. "Design of buildings and their approaches to meet the needs of disabled people"*.

4.8 FURNITURE & EQUIPMENT

- a. Where possible, mobile furniture should be chosen to allow the teaching staff flexibility in rearranging the teaching space to suit the particular needs of pupils and for curriculum implementation.
- b. The DoES does have a grant for *Loose Furniture & Equipment* and a grant for *Multi-Sensory Equipment*. This is a matter for a separate application and discussion between the school and the DoES.
- c. Design Teams on schools for pupils with SEN should be aware of furniture design and its appropriateness for each individual pupil. Details that might seem inconsequential in other educational environments, for example, the sharp corners of projecting whiteboard marker trays or of window boards can present

unintended hazards. In such cases trays should be omitted and window boards made flush or projecting ends should be rounded. Plain finishes are more appropriate. It may be appropriate for Design Teams to consult with an Occupational Therapist regarding specific furniture and equipment requirements.

- d. Pupils with visual impairment may require glare reduction and contrast properties on furniture. The location of furniture and equipment within a room for pupils with visual/hearing impairment also requires consideration. Spaces between windows for the display of materials are inappropriate in order to avoid the likelihood of photo-phobic pupils gazing into bright lights. It is also appropriate that the orientation of assigned teacher aids/areas such as whiteboards, demonstration areas, etc., needs to be carefully considered.

4.9 ACOUSTIC ENVIRONMENT

- a. A proper acoustic environment will be crucial for effective classroom teaching. Noise can be generated from outside the school site, arise in the school building generally, or arise within the classroom itself. Noise which arises within the school building may come from human activity or from ventilation systems, fans, plumbing etc.
- b. A number of pupils with SEN, for example some pupils with ASD, have difficulty processing sound. The problem isn't just noise. For example, a pupil with ASD who cannot differentiate sounds that are important from those that aren't can become distracted all too easily by sound within the classroom, or sound coming from a fan or duct. Controlling the acoustical environment isn't just a matter of attenuating sound from the air system. Learning spaces must also be configured in ways that control sound transmission.
- c. Consideration should be given to the location of the SEN within the wider school. Specialist teaching areas should not be in close proximity of areas within the school that could cause noise spillage and disturbance to students within the SEN.
- d. All teaching spaces and corridors must be acoustically treated to facilitate clear communication of speech between teacher and student and prevent interference from student activity. Absorptive treatment can be added to room surfaces to prevent noise build-up and to reduce airborne noise transmission. The type of finishes chosen should take the degree of low and high frequency sound absorption into account to ensure intelligible speech frequencies are maintained at all times. All acoustic treatment must be calculated on the basis of an empty space i.e. a space without furniture and fittings. The *Central Activities Space* and *Quiet Spaces* should be treated with an acoustic finish suitable for the room's intended purpose e.g. physiotherapy, ball games, behaviours of concern etc. The Design Team should strongly consider acoustic performance early in the design stage and should refer to the current version of [SDG 02-05-03 Acoustic Performance in New Primary and Post-Primary School Buildings](#)

4.10 DAYLIGHT

- a. The control of natural daylight penetration needs to be carefully considered. The creation of strong contrast between light and shade can cause confusion and anxiety for certain pupils with SEN and in particular some pupils with ASD. Strong shadow lines may create fear and pupils will be unwilling to venture beyond the obstacle. Clerestory windows and skylights may also be counterproductive because shifting patterns of daylight can complicate the visual environment. These drawbacks mean that Design Teams must carefully evaluate the locations of windows and skylights when and where they are used.
- b. Blinds where provided shall be in compliance with the DoES guidelines for blinds and shall be light

coloured basket weave sunscreen material with the following:

- Light transmission values in the 9% to 12% range
 - Solar absorption in the 17% to 20% range
 - Openness factor in the 3% to 5% range (3% may be more appropriate in South facing elevations, subject to mock-up on site)
 - Optimum shading co efficient.
 - In addition on East and South facing elevations a second blind, with an openness factor of 1%, should be fitted to the classroom window nearest to a teaching wall containing an interactive whiteboard for use only when the interactive whiteboard is subject to direct sunlight, i.e. early in the morning, low winter sun, etc.
- c. Refer to the relevant technical guidance documents available on the DoES website www.education.ie.

4.11 MECHANICAL SERVICES

This section shall be read in conjunction with the relevant technical guidance documents available on the DoES website www.education.ie.

- a. Adequate natural ventilation should be achievable without draughts. All spaces with the exception of the *Quiet Space* in classrooms and the *Multi Activity Room* should have the benefit of high and low level natural ventilation opening sections in the windows as outlined in the relevant technical guidance documentation. Tilt and turn windows are not appropriate. The window design with respect to geometry and opening sections must ensure that resultant dry temperatures in all teaching spaces shall not exceed 25°C for more than 5% of the school year i.e. 51.85 hours in primary schools and 55.70 hours in post primary schools and takes into account air tightness standards.
- b. In accordance with the Department’s natural ventilation strategy, and for the compliance with the Building Regulations, permanent ventilation openings to comply with the prevailing version of the Department of Housing, Planning, & Local Government (DoHPLG) Building Regulations Part F Ventilation should be provided in addition to any sash openings or window perma-vents. They should be provided at high level in a draught free manner. This requirement will be addressed in the Architectural Design, and modelled for compliance by the Services Engineer.
- c. Under-floor heating is not considered suitable and should not be specified. It is not responsive enough and impinges on the school authority’s freedom to use padded floor mats for pupil activity.
- d. Low surface temperature radiators are required in the SEN Accommodation. Radiant panels should be considered as it will increase the amount of available wall space in the classroom.
- e. In order to reduce the risk of injury, and also to provide free and unimpeded movement, all low level radiators should be recessed within the thickness of the 215mm plastered walls throughout the SEN accommodation unless referenced otherwise. The outer face of the radiator should lie flush with the plaster face of the wall.
- f. The sizes of low level radiators in SEN accommodation shall be based on the space heating analysis for individual spaces. The overall size of the recessed openings should be based on the required radiator

manufactured length plus 100mm clearance at the top and 100mm at each end (for valves). Sizing of radiators should take into account the reduced occupancy and potentially higher room temperature required by special needs pupils.

- g. Radiators may not be required in the *Quiet Space* attached to each classroom or in standard size WC's. These are small spaces and should benefit from the adjacent heated main areas they serve.
- h. A recessed radiator should be provided in the *Toilet/Shower for Assisted Users*.
- i. Heat Emitters in the *Multi Activity Rooms* should be at high level.
- j. It is acceptable and advisable to run pipe work to radiators in the concrete floors from centrally located manifolds with continuous pipe within a pipe with no joints to individual radiators. Extensions pieces from radiators to the upstand pipes are not acceptable and shall not be provided. It is imperative that pipes are installed at the correct dimensions for the radiators when the floors are being poured.
- k. Pipe work must be a multi-layered plastic pipe with oxygen barrier and be sleeved and insulated in such a manner that it can be fully withdrawn and reinstalled, if necessary, post installation without disruption to the areas and finishes that it passes through.
- l. Each teaching space and staff areas shall be controlled via two port motorised valves with electrically powered digital thermostats with a lockable range up to a maximum of 24°C. Care should be taken when locating these units to ensure they are not easily accessible by the pupils.
- m. Local heating control valves and other pieces of equipment, where local access for future maintenance is required, shall be located in the ceiling space in the link corridor or the toilet area between classrooms. Access to these shall only be via removable ceiling tiles. This is to avoid classroom disturbance during emergency servicing and eliminates the need for ceiling access trapdoors within classrooms. Refer to *SECTION 4.7.2 CEILINGS* herein for further guidance on the type of ceiling to be provided in these spaces.
- n. Water services pipe work must be concealed to avoid distraction and potential damage.
- o. All thermostatic mixing valves must be connected to the hot water and cold water distribution services as detailed on the Thermostatic Mixing Valve installation drawing RT-TMV-001. Refer to relevant technical guidance documents available on the DoES website www.education.ie.
- p. Mains water is only required at the classroom sink including a tap for potable water in compliance with relevant DoE TGDs.
- q. Water supply to all taps, and cisterns should be capable of independent isolation using cut-off valves.
- r. WC cisterns should be fitted with tamperproof lids.
- s. Mechanical extract ventilation shall be provided in en-suite toilets in SEN accommodation. It shall be via an extract fan incorporating a run-on facility set to 10 minutes and controlled via a local on-off switch incorporating a pilot light. The fan selection and system design should be based on the air volume and acoustic requirements for the particular area and the adjoining spaces.
- t. Mechanical extract ventilation shall also be provided in the *Multi Activity Room*. It shall be time controlled and shall only run during schools hours. The fan selection and system design should be based on the air

volume and acoustic requirements for the particular area and the adjoining spaces. The entrance door from the local circulation space should be undercut to facilitate the mechanical extract ventilation of the space.

- u. The Design Team shall liaise with the school and ascertain if a gas or electric hob or cooker is required in the *Daily Living Skills* space. Where a gas hob or gas oven is being provided the following guidelines in relation to the gas supply will apply.
 - Where an existing gas supply is available its safety and adequacy should be assessed, and if in order, should be extended to the points of use.
 - Gas distribution pipes shall be black mild steel and shall be finished in two coats of yellow paint and marked as 3m intervals as a gas distribution pipe.
 - A gas pressure proving system shall be provided on the gas supply in this teaching space.
- v. Consideration may be given to fitting a seven-day time clock on the pressure proving system valve to isolate the gas supply (excluding supply to heat producing equipment) out of school hours. This valve shall also be connected to the fire alarm system for isolation of the gas supply on activation of the fire alarm system

4.12 ELECTRICAL SERVICES

- a. This section shall be read in conjunction with relevant technical guidance documents available on the DoES website www.education.ie.
- b. The electrical installation shall be wired in concealed conduit. Surface mounted conduit is not acceptable in SEN accommodation.
- c. Lighting controls as outlined in DoES M&E Building Services Engineering Guidelines are not considered suitable for use in SEN accommodation. Absence detection is not suitable as this type of control can give rise to anxiety and panic attacks in some pupils, making them reluctant to use the space and create dependencies for adult accompaniment. Manual on/off controls shall be provided.
- d. Appropriate LED light fittings shall be provided in teaching spaces, specialist rooms and throughout the SEN accommodation.
- e. Corridor lighting in SEN accommodation shall be manually controlled via two-way switches located at either end of corridors.
- f. A manual dimming switch shall be provided on the lighting installation in the *Multi Activity Room*. In addition to the normal lighting an ultraviolet (UV) twin batten type fitting mounted on the ceiling or wall and controlled by a dedicated local light switch shall be provided in the room. This will be used by staff members as a teaching aid.
- g. IT Services should be a Wireless solution. Wired Network Points shall be installed to ensure wireless coverage of all teaching spaces and all spaces used by Staff, and any other spaces likely to be used by pupils and teachers. In addition a wired access point shall be provided at the Teaching Wall of all teaching spaces. See typical SEN layout drawings.
- h. In SEN rooms with Teaching Walls the detail of the final connections should be fully co-ordinated with

the actual equipment to be used by the school, to ensure that connector types for data and AV match the requirements of the equipment, with some additional connectors for future proofing. All cabling should be properly marshalled and enclosed to avoid trailing flexes or loose cables.

- i. An additional 5m length of coiled cable should be provided in the ceiling space above the network point to facilitate relocation of it in the future should the need arise.
- j. Two twin socket outlets should also be provided in a discreet location and at an appropriate height above finished floor level in classroom store or in an adjacent store, to facilitate charging of laptops, tablets, etc.
- k. Network points shall be wired in Cat 6a cable.
- l. The Design Team shall liaise with the school and teaching staff at an early stage in the design process regarding:
 - Locations and numbers of socket outlets in teaching spaces
 - Height adjustable sink units in classroom bases
 - Height adjustable changing benches and mobile hoists being provided in the en suite toilets
 - Specialist equipment being provided in the *Multi Activity Room* and its location
 - Kitchen equipment being provided in the *Daily Living Skills* space
 - Equipment being provided in the *Cleaners Store*
- m. Power supplies for an electronically height adjustable changing bench and to facilitate battery charging of the lifting cassette/charger station for the track hoist shall be provided in convenient locations in *Toilets/Showers for Assisted Users*. The concealed conduit drops to these locations to be co-ordinated to provide an economical and workable solution.
- n. In the *Multi Activity Room* power points for specialist equipment shall be controlled from a secure wall panel provided beside the entrance door to the room. The panel shall facilitate independent control of each piece of equipment. This permits the carer/therapists to use one piece at a time and is essential for the effective assessment of users; their responses and preferences. As a guide a minimum of 10 twin socket outlets shall be provided at varying heights above floor level in various locations in the room.
- o. Suitably rated power points shall be provided in the *Daily Living Skills Room* to cater for equipment being provided in these areas.
- p. The wiring for a soundfield system in each classroom should be included. Soundfield systems improve the listening environment for pupils.
- q. Sockets outlets shall be the un-switched type (some pupils can become obsessed with turning on and off switches) and should be protected when not in use using conventional 3-pin cover inserts.
- r. At least one twin socket outlet should be provided at high level in each of the classrooms and central activity space to facilitate television etc. This is to eliminate trailing cables which can create problems for some pupils.

- s. The school intercom system should be extended into the SEN accommodation. Loudspeakers in classrooms in the SEN accommodation shall have a volume control in addition to the talk-back toggle switch. This is to facilitate switching off speakers as well as controlling the volume level from them.
- t. A telephone point shall be provided in each teaching space, i.e. *Classroom Base, Central Activities Space, Multi Activity Room, Daily Living Skills Room* and *office* for internal communications.
- u. The system should also allow for external calls to be routed via the main office in the school.
- v. An Emergency Call/Panic Alarm System consisting of a central control station in the *Administration Office* and emergency assist panic pendants worn by staff shall be supplied and installed as part of the electrical installation. The system provided shall cover both the SEN Accommodation as well as associated outdoor spaces. Typically this will be an addressable system comprising mobile pendant/hand-held panic button units and a panic button controller. The intention is that a unit will be assigned to a staff member and when it is triggered, an alarm will sound and the display unit will indicate a number assigned to the staff member who triggered the alarm. The system may have a two phase panic mode, Setting 1 for a threatening situation; Setting 2 for a serious emergency.
- w. An electronic access system with key fob control shall be provided to activate rebated mortise electromagnetic locks on the main entry/exit doors. The Design Team shall liaise with the school and teaching staff at an early stage during the design process regarding the preferred type of system and also the number of key fobs to be provided. It shall not be linked to the fire alarm installation in the school as this may contribute to problems for staff where nuisance tripping of the fire alarm occurs.

4.13 OTHER

- a. Food preparation smells must not be allowed to penetrate beyond the spaces in which the food is being prepared therefore there is a need for extraction ventilation.
- b. Drainage systems should have large diameter outlets which are fully accessible and roddable.
- c. Oversized below ground waste outlets should be provided for the SEN accommodation. This matter should be co-ordinated by the Project Architect and detailed by the Project Civil Engineer

5. INTERIM SEN ACCOMMODATION

- a. In some cases interim SEN accommodation may be necessary to meet an immediate need in a particular school or geographical area. This need will not have been predicted early enough, to allow for permanent additional accommodation to be provided in advance. Therefore, a cost-effective and pragmatic solution must be found for each project where interim SEN accommodation is to be provided.
- b. Interim SEN accommodation needs will arise in a number of ways including unforeseen need for SEN provision, initial set up of SEN class, short term decantment needs while new permanent accommodation is being built, interim accommodation until a more permanent solution is procured, or emergency accommodation when buildings are damaged by fire, storm damage, etc.
- c. Interim accommodation can be defined as a proposal that is to serve a short term accommodation need and form an initial solution to a longer term plan.
- d. Evaluation of school site for future expansion and re-use of existing under-utilised school accommodation is to be prioritised. Grant aid will be available for any necessary modification or renovation of existing teaching spaces to be re-purposed as SEN accommodation. The proposed solution should promote inclusion in mainstream schools and provide for optimum re-use of existing accommodation. Please refer to **Appendix B** for suggested layouts for a re-purposed primary classrooms.
- e. These works should ideally form part of the long term plan for SEN provision in the school. This can be supplemented with additional new build areas where required. Where possible the principles outlined above for new accommodation should be applied to the re-purposing of areas for SEN provision. For example – the following internal works may be required:
 - Replacement of floor finishes to impact absorbing vinyl.
 - Upgrading of ceiling finishes to improve acoustic performance.
 - Replacement of glazing in windows to safety glass.
 - Mechanical or Electrical upgrade to suit new room purpose – i.e. artificial lighting replacement, emergency / panic alarm installation, additional or relocated electrical sockets, services for multi-sensory rooms etc.
 - Provision of external door to dedicated play area.
 - Modification to WC facilities to suit needs.
 - Replace radiators with low surface temperature radiators or suitable radiator covers.
 - Provide secure lockable storage within classroom.
 - Works to create a Quiet Space or Multi Activity room in the Classroom base or close-by.
- f. Additional secure play area will form part of the project. A separate play area of 100m² hard surface area linked to the SEN classes will be provided as part of an initial solution.
- g. Works to existing rooms can also be undertaken to facilitate a temporary solution until a permanent solution is achieved. It is not always possible or necessary to provide the full Schedule of SEN provision set out above in a temporary solution. Easy access to facilities within the school including SET room, Multi Purpose Areas, Assisted User WC are to be prioritised.

- h. Where re-using existing Classrooms or available space in an existing school – the SEN Classroom base should be located in a central secure area that is easily accessible to other facilities within the school. It is appropriate for this to be in a quiet, less trafficked area of a large school with access to external play areas. Accommodation for pupils with SEN should normally be located at ground floor level with direct access to secure external play areas. Consideration to be given to the safe set-down and pick-up of pupils close to the main entrance. Additional 3 staff parking spaces per Class base will be included in the brief.
- i. At project inception the School Authority and its Design Team undertake a risk assessment to identify any risks which cannot be managed to an acceptable degree within the limitations of the interim accommodation solution. This could relate to site specific issues, Building layout, location of the interim accommodation, internal building finishes, accessible support spaces or lack of facilities in the existing school.
- j. Where necessary to support the set up of SEN provision in a school, any additional works are to be identified and grant aid applied for to the DoES. Written agreement is required before planning, design or construction commences.
- k. At Primary level the Classroom will have en-suite toilet facilities and access to an Assisted User WC within a short distance of the Classroom. At Post Primary level, the SEN Classroom should be located in close proximity to accessible toilets and Assisted User WC. Where an 80m² Classroom or larger area is available, an area of this Classroom can be subdivided to create a Quiet Space of 12m² in line with recommendations for permanent accommodation. Classroom Storage should be provided with lockable doors.
- l. Access to at least one SET Room of 15m² within close proximity of the Classroom is required. This room can be used as a Resource Area for 1:1 teaching or converted to a Multi Activity Room that will be a Resource for the pupils in the SEN base. Where re-designating rooms in an existing school a pragmatic approach should be taken utilising existing spaces as far as possible without excessive refurbishment or demolitions.
- m. Where required internal connecting doors between the main building and the SEN accommodation can be included. These doors can have an electronic secure control system. The location of the SEN accommodation linked to a main circulation area must not impact on the means of escape strategy from the main school in the event of an emergency. The design of circulation must equally maintain the safety security requirements of the SEN accommodation at all times.
- n. If no space is available within the existing school, temporary accommodation in the form of prefabricated units may be considered. Temporary SEN Accommodation should not be located in a remote or isolated part of the site where contact and social development opportunities with the main school population would be impossible to promote. Where this cannot be achieved re-designation of an existing area in the school for SEN base should be considered and replacement mainstream accommodation proposed in temporary accommodation until such time as a permanent extension can be delivered. Accommodation for pupils with SEN should not be provided in a stand-alone building and unavoidable should be connected via an enclosed link or a covered external link to the existing school.
- o. Where temporary SEN accommodation is provided in Prefabricated Buildings please refer to **Appendix D** for suggested layouts that may be provided with standard Prefabricated modules. Each solution will be site specific and can be evaluated on a case by case basis.

- p. In locating the temporary accommodation consideration must be given to where the long-term permanent SEN base extension will be situated, and the temporary accommodation located where it will not hinder this future development. Location of the temporary accommodation should not impact on current car-parking or play areas within the school site. Where the Design Team identifies that it is not possible to locate the temporary accommodation in an unobstructed location they should revert to the school authority/Does for further guidance.

5.1 RELEVANT GUIDANCE DOCUMENT

This guidance document is part of a suite and for Temporary Accommodation shall be read in conjunction with *DoES TGD-001 guidance for Temporary and Prefabricated Accommodation (Draft Feb.2019)* available at DoES website www.education.ie.

6. ROOM DATA SHEETS

6.1 CENTRAL ACTIVITIES SPACE

Depth (m) x Width (m)	Area (m ²)	Min. Clear Height (m)
Varies	80.00	3.15

6.1.1 DESIGN CONSIDERATIONS

- a. The *Central Activities Space* is the shared central space between the Classroom Bases. It should ideally be located in a prominent central position within the SEN base. The *Central Activities Space* is intended as a general purpose space. It can have a variety of uses such as:
 - Break-out and social space separate from Class bases.
 - Linked with the mainstream school element to promote integration with mainstream students.
 - Therapy area for visiting physiotherapy / occupational / speech and language therapy and support professionals.
 - Resource Area for group activities, living skills, drama, dance, exercise etc.
 - Specific special needs activities, group learning or as a social space which draws students of all abilities together for a chat, for a presentation, or something to eat, etc.
- b. The *Central Activities Space* is a flexible space for different functions including sensory integration, involving the use of padded walls and flooring in designated areas. In order to create maximum flexibility in the use of this space and create a safe swinging zone, it is recommended that the minimum clear area of 3.6m x 3.6m free of any obstacles e.g. door swings or furniture is allowed for this purpose and should be as far away from the window as possible. Padding should typically be brought to a height of 1.5m minimum over finished floor level where required.
- c. Whilst the space should be capable of being used for play, where pupils can run and express themselves, more formal structured games should take place in the *General Purpose (GP) Room*. Where the school does not have a GP space, then locate the Central Activities Space so it can be used by the entire school whilst not compromising the safety of special needs students.
- d. Design Teams should work with the school authority and their special needs teachers to examine ways in which these principles can be given an opportunity to develop in evolving the overall design for the school.
- e. Whilst it is not necessary to have this area on an external wall, the space must meet the minimum day lighting and natural ventilation standards set out in the DoES TGDs.

6.1.2 MECHANICAL & ELECTRICAL BUILDING SERVICES ENGINEERING

M&E Services as outlined in Sections 4.11 *Mechanical Services* & 4.12 *Electrical Services* herein shall be provided.

6.1.3 FITTED FURNITURE & EQUIPMENT

- a. An 'I' beam will be required for this space. The location of the beam which provides the suspension points requires careful consideration in consultation with the Occupational Therapist, Design Team and the equipment supplier. The 'I' beam should be lower than the ceiling; this allows easy fixing of equipment and also allows the school to maintain the fixing bolts and carry out regular visual inspections.

They would also prefer to bore the 'I' beam themselves as this allows them to place the equipment in the optimum position and fit an appropriate fixing hook to cater for the required weight etc.

- b. A minimum of two fixing points should be provided in the 'I' beam to allow for the fixing and support of suspension equipment, e.g. a swing, doughnut, etc. These are to be bored by the company supplying the equipment to ensure loadings and fixings are calculated based on typical user requirements and optimum location.
- c. The working load is the combined weight of the equipment, the child and/or therapist on it, and the weight created by movement. It is NOT the number at which the equipment will fail, but rather the maximum sustainable load that the equipment can handle.
- d. Eyebolts will wear with use and must be inspected on a regular basis. Discontinue use of eyebolt and replace immediately when wear begins to show, never letting wear exceed 30%.

6.1.4 FINISHES

Finishes should be as specified based on the following usage

- Floor: Multi-purpose impact-absorbing vinyl floor finish
- Walls: Smooth plaster finish, painted.
- Ceiling: A-rated Acoustic plasterboard/suspended ceiling finish

6.2 CLASSROOM BASE (EXCLUDING TOILETS AND STORAGE)

Depth (m) x Width (m)	Area (m ²)	Min. Clear Height (m)
varies	70.00	3.15

6.2.1 DESIGN CONSIDERATIONS

The *Classroom Base* should be located close to the *Central Activities Space* and should have direct access to a secure external play area.

6.2.2 MECHANICAL & ELECTRICAL BUILDING SERVICES ENGINEERING

- a. M&E Services as outlined in *Sections 4.11 Mechanical Services & 4.12 Electrical Services* herein shall be provided.
- b. The Classroom Base should have a telephone point

- c. Refer to *Section 4.12 Electrical Services* above further guidance on the layout of the ICT installation. Flexibility to locate PC's in different areas of the classroom will be required. Computers may sometimes be mounted on a trolley.

6.2.3 FITTED FURNITURE & EQUIPMENT

- a. Defined Cloakroom space for each pupil which will contain his/her coat, bag, shoes, books etc. shall be provided. For Post Primary schools, personal storage can be provided in lockers to encourage independence.
- b. Single bowl, single drainer sink unit in the wet area. The unit should be fully wheelchair accessible, and be electronically height adjustable.
- c. Low level lockable storage units in the wet play area.
- d. Whiteboards and notice boards as follows:
- Two whiteboards (2400 x 1200mm non-interactive) fixed between 800 – 900mm above FFL
 - One notice board (2400 x 1200mm) fixed between 800 – 900mm above FFL
 - Care should be taken when locating these on walls so as to facilitate and not to interfere with the provision of interactive whiteboards and/or data projectors by the school authority.
 - The provision of non-interactive whiteboards and noticeboards is part of loose furniture and equipment, and shall be fixed in place by the main contractor. The school authority is responsible for the provision of data projectors and interactive whiteboards and this shall not form part of the building contract.
 - Locations of all boards etc. must be agreed with the school beforehand.
- e. Allow for the provision of a stand-alone television and video/DVD playback unit. These should be located either on a mobile trolley or in a lockable press. A satellite/cable connection is not required.
- f. The *Classroom Base* should facilitate the setting up by staff of up to 6 individual workstation areas for pupils on the autism spectrum. Each individual space is defined using moveable freestanding partitions and mobile storage units that facilitate the pupil working from left to right. Fixed partitions or fitted furniture are not recommended. The provision of mobile storage units and freestanding partitions forms part of the Loose Furniture & Equipment grant.
- g. Computer trolleys may be required.

6.2.4 FINISHES

Finishes should be as specified based on the following usage

- Floor: Multi-purpose impact-absorbing vinyl floor finish. If staff envisage a lot of water use/water play a slip resistance of R10 is advised.
- Walls: Smooth plaster finish, painted.
- Ceiling: A-rated Acoustic Plasterboard or suspended ceiling tiles (non-patterned), concealed grid

6.3 TOILETS & SHOWER AREA

Depth (m) x Width (m)	Area (m ²)	Min. Clear Height (m)
varies	20.00	2.8

6.3.1 DESIGN CONSIDERATIONS

- a. In Primary school SEN bases each *Classroom Base* should have direct access to en-suite toilet facilities. Depending on the design solution, this accommodation can be shared either between 2 *Classroom Bases* with direct access from both bases or as individual toileting suites off each *Classroom Base*.
- b. In Post Primary schools the toilets should be accessed from the common circulation area outside the Classroom Base.
- c. The above provision of one *Toilet/Shower for Assisted User*, one *Ambulant Accessible Toilet* and one *Unisex Universal Access Toilet for Independent Use* per pair of classroom bases. This equates to a total floor area of 20m² per pair of classrooms. The *Schedules of Accommodation* are based on this.
- d. Each SEN Base should typically have standard Toilet/Shower for Assisted User 10.5m² in area. Refer to *Appendix C: Sanitary Facilities* herein and the prevailing version of *DoES SDG 02-06 Sanitary Facilities* for specific details and guidance on what exactly is required. This room should be designed as a wet room using finishes as specified below falling to a central drain outlet.
- e. En-suite facilities should be located on external walls and provided with adequate natural and purge ventilation of the spaces.
- f. Some pupils may require the use of a commode for their toileting needs. The design/location of the WC pan and cistern must facilitate the use of a commode and also allow 3 sided access in order to facilitate assisted use of the WC by a pupil and his/her carers.
- g. All waste outlets and drainage runs must be easily accessible and roddable.
- h. All water service connections to taps and other appliances should be fitted with maintenance valves to allow for items to be replaced/repared without having to drain the system.
- i. Where specific needs dictate, it may be necessary to fit an electronically height adjustable changing bench and/or a ceiling/wall mounted track hoist system into the assisted en-suite toileting area within the SEN accommodation. Where this has been agreed the supply and installation of a height adjustable changing bench and/or a hoist will form part of the building contract. The structure must be capable of supporting the track system and a live load of 100kgs minimum.

6.3.2 MECHANICAL & ELECTRICAL BUILDING SERVICES ENGINEERING

- a. M&E Services as outlined in *Section 4.12 Mechanical Services & 4.13 Electrical Services* above shall be provided.
- b. One twin socket outlet shall be provided.
- c. A telephone point shall be provided.

6.3.3 FITTED FURNITURE & EQUIPMENT

Storage cupboard and shelving for sanitary supplies

6.3.4 FINISHES

Finishes should be as specified based on the following usage

- Floor: Sheet vinyl finish, minimum slip resistance rating of R10 with a minimum of SRV 36. In barefoot areas e.g. showers a barefoot slip resistance of R11/Class B is required.
- Wall: Walls should be covered with non-porous ceramic high gloss tiles

6.4 QUIET SPACE ASSOCIATED WITH CLASSROOM BASE

Depth (m) x Width (m)	Area (m ²)	Min. Clear Height (m)
varies	12.00	varies

6.4.1 DESIGN CONSIDERATIONS

- a. This space should be located within or directly off the *Classroom Base* and is intended as a safe quiet area that a pupil, under the supervision of a staff member, can access for a short period of time. The design of the space must allow staff to observe pupils unobtrusively from the classroom. On other occasions, pupils, who may feel under pressure or who need time to themselves in order to diffuse a potential behavioural outburst will be encouraged to withdraw to this space themselves, thus learning how to self-regulate and modify their behaviour.

The *Quiet Space* is to be designed as a quiet/sensory zone or alcove within the Classroom without enclosing walls and not as a separate room. This area can have different softer finishes to the Classroom that will allow pupils to relax and sit/lie on the floor. A 'dark' room, using dark blues, can be created as an alcove off the Classroom to provide a different environment or to provide a different sensory experience. This is a matter for discussion and decision between the school authority and the Design Team.

- b. A window is not essential in this space but should be included if located on an external wall.

6.4.2 MECHANICAL & ELECTRICAL BUILDING SERVICES ENGINEERING

- a. M&E Services as outlined in *Section 4.12 Mechanical Services & 4.13 Electrical Services* above shall be provided.
- b. One twin socket outlet shall be provided.
- c. A telephone point shall be provided

6.4.3 FINISHES

The colour scheme should reflect the calming nature of the space

- Floor: Multi-purpose impact-absorbing linoleum/vinyl floor finish or carpet.

- Wall: Hardwall/sand & cement plaster finish and painted
- Ceiling: Acoustic plasterboard ceiling finish- an applied or integrated acoustic treatment may be used on the ceiling in order to meet the appropriate acoustic requirements of the room.

6.5 MULTI-ACTIVITY ROOM

Depth (m) x Width (m)	Area (m ²)	Min. Clear Height (m)
varies	20.00	3.15

6.5.1 DESIGN CONSIDERATIONS

- The *Multi-Activity Room* is used to provide a variety of activities sensory, therapeutic and educational. It supports physical activity and/or rest and relaxation supported by the curriculum. The space should encourage positive actions and responses for pupils with specific needs, and promote rest, relaxation and reduce tension for those pupils who are stressed or agitated. It can also be used to make demands on pupils using interactive equipment towards specific educational aims.
- As a general guide, the space should be highly soundproofed from adjoining spaces. Multi-Activity rooms are used with loud music in some instances and for quiet relaxation on others. The room must support both.
- Wall construction should be robust and capable of supporting shelving for equipment and for directly fixing specialist equipment.
- In the case of new schools or extension to schools the *Multi-Activity Room* can have a window but it should be provided at a higher height and be capable of meeting full blackout requirements should the room be used for multi-sensory purposes.
- In the case of existing school buildings where there is already a window in the teaching space it must be capable of meeting full blackout requirements should the room be used for multi-sensory purposes.
- Mechanical extract ventilation shall be provided in this space. The fan selection and system design should be based on the air volume and acoustic requirements for the particular area and the adjoining spaces. Make up air shall be provided via an undercut door.
- A suspension beam with fixing points should not be provided in this space – this activity is catered for in the *Central Activities Space*.

6.5.2 MECHANICAL & ELECTRICAL BUILDING SERVICES ENGINEERING

- Power supplies shall be provided for specialist equipment.
- M&E Services as outlined in *Section 4.12 Mechanical Services & 4.13 Electrical Services* herein shall be provided.
- The Design Team shall discuss with the school and teaching staff: It is imperative that these discussions take place at an early stage in the design process and decisions are taken to ensure the provision of the

electrical services i.e. conduit runs and power points etc. is properly coordinated before the walls are plastered.

- d. The Design Team shall also liaise with the suppliers/installers of the equipment to ascertain their requirements.
- e. The roles and responsibilities for the supply and installation of the specialist equipment need to be identified and adequately defined.
- f. The location of the central control panel to control specialist equipment, as well as locations for the specialist equipment shall be determined.
- g. Power points for specialist equipment should all be independently controllable from an accessible and secure wall panel within the room and beside the entrance door. Surface mounted conduit will not be acceptable.
- h. Manual dimming shall be provided on the lighting installation in this space.
- i. An Ultra Violet Light (typically a 1.2 m linear fitting) lighting at ceiling level shall be provided at ceiling level, in addition to the normal lighting requirements. Refer also to Section 4.13 Electrical Services herein.
- j. The location of the Heat Emitter in this room requires careful consideration. It must not restrict the use of the space. Consideration should be given to using a radiant panel heater located at high level.

6.5.3 FITTED FURNITURE & EQUIPMENT

- a. Furnishings and finishes must be safe and durable.
- b. The range of sensory equipment used will vary from school to school and the individual needs of the child. In addition to the grant for loose furniture, a separate one-off grant will be provided by the DoES for the purchase of this equipment. It will be a matter for the school authority to prioritise the equipment for purchase, within the amount of the grant.
- c. The range of typical equipment will normally include seating equipment (beanbags, foam filled mats, etc.); wall/ceiling projector (250 degree); mirror ball, fibre optics, sound system, aromatherapy diffusers, switching systems, bubble tube, mirrors, etc.
- d. It is recommended that, because of the specialist needs and user requirements of this space, consultation between the school authority, special needs teacher, Architect, M&E Building Services Consulting Engineer and specialist supplier of multi-sensory equipment needs to be undertaken at the earliest opportunity in order to establish goals, identify what needs to be achieved, define the equipment needs and to identify and make provision for space and services requirements in the initial designs.

6.5.4 FINISHES

Finishes should be as specified based on the following usage

- Floor: Multi-purpose impact-absorbing linoleum/vinyl floor finish.
- Wall: Smooth plaster finish, painted.

- Ceiling: Acoustic ceiling tiles (non-patterned), concealed grid

Colour used should be calming – typically off-white, which will support most effects, particularly the projection of colour and image. Alternatively a ‘dark’ room, using dark blues, can be created with curtains, or by colouring a corner of the room in a dark blue colour to provide a different environment, particularly where U.V. light will be used, or to provide a different sensory experience. This is a matter for discussion and decision between the school authority and the Design Team.

6.6 STAFF TOILETS

Depth (m) x Width (m)	Area (m ²)	Min. Clear Height (m)
varies	10.00	2.8

6.6.1 DESIGN CONSIDERATIONS

A minimum of one male and one female staff toilet should be provided. In addition, a *Unisex Universal Access Toilet for Independent Use* should also be provided, or alternatively, each of the male and female toilets can be increased in size within the overall floor area allocation to provide this fully assisted facility.

6.6.2 MECHANICAL & ELECTRICAL BUILDING SERVICES ENGINEERING

M&E Services as outlined in *Section 4.12 Mechanical Services & 4.13 Electrical Services* herein shall be provided

6.6.3 FINISHES

Finishes should be as specified based on the following usage

- Floor: Sheet vinyl finish, minimum slip resistance rating of R10 with a minimum SRV 36 , coved skirtings
- Walls: Smooth plaster finish, painted.
- Ceiling: Plasterboard ceiling

6.7 CLEANER STORE

Depth (m) x Width (m)	Area (m ²)	Min. Clear Height (m)
varies	5.00	2.8

6.7.1 DESIGN CONSIDERATIONS

- The room should be accessible from circulation space and should be equipped with:
 - Sluice sink or Belfast sink with bucket grate mounted with the top of the sink basin 530mm above finished floor level

- Fixed counter unit 600mm deep, 900mm high, 1200mm long with a single bowl sink and drainer, including secure lockable under-sink storage to accommodate detergents and cleaning products
- Open shelf high level storage unit, 350mm deep, 900mm high 1200mm long to accommodate clothes and linens over the length of the fixed counter unit.

6.7.2 MECHANICAL & ELECTRICAL BUILDING SERVICES ENGINEERING

M&E Services as outlined in *Section 4.12 Mechanical Services & 4.13 Electrical Services* herein shall be provided

6.7.3 FINISHES

Finishes should be as specified based on the following usage

- Floor: Sheet vinyl finish, minimum R10 slip rating , coved skirtings
- Walls: Walls should be covered with non-porous ceramic high gloss wall tiles
- Ceiling: Plasterboard ceiling

6.8 STORAGE

Depth (m) x Width (m)	Area (m ²)	Min. Clear Height (m)
varies	varies	2.8

6.8.1 DESIGN CONSIDERATIONS

- General storage should be provided in accordance with the *Schedule of Accommodation*. The overall Storage allocation allows for a dedicated lockable Classroom Store of minimum 7.5m² per Class Base. This Store should be located directly off the Classbase and easily accessible to staff but not to pupils.
- A General Store of 10m² is to be provided directly off the circulation area. Secure storage for medical supplies should be included.
- Storage shelves for car booster seats and car seats should be provided as part of General Storage where required.

6.8.2 MECHANICAL & ELECTRICAL BUILDING SERVICES ENGINEERING

M&E Services as outlined in *Section 4.12 Mechanical Services & 4.13 Electrical Services* herein shall be provided

6.8.3 FITTED FURNITURE & EQUIPMENT

30 linear metres of 300mm deep shelving to be provided-10 m per classroom store and 10 m for General Store

6.9.4 FINISHES

Finishes should be as specified based on the following usage

- Floor: Sheet vinyl finish, minimum R10 slip rating
- Walls: Painted (where walls are block work a fair faced un-plastered finish can be used in Store)
- Ceiling: Painted plasterboard

6.9 OFFICE

Depth (m) x Width (m)	Area (m ²)	Min. Clear Height (m)
varies	20.00	2.8

6.9.1 DESIGN CONSIDERATIONS

- The *Office* should be located close to the main entrance in SEN accommodation. It will be used primarily by the teachers associated with the SEN accommodation and as a meeting room. It will also provide secure storage for pupil's education files, secure general storage, reception facilities, stationery etc.
- The *Office* can also be used as a SET Room for individual teaching or for visiting Professionals who may be providing specific therapy or counselling to pupils.

6.9.2 MECHANICAL & ELECTRICAL BUILDING SERVICES ENGINEERING

- M&E Services as outlined in *Section 4.12 Mechanical Services & 4.13 Electrical Services* herein shall be provided.
- Four twin socket outlets shall be provided.

6.9.3 FINISHES

Finishes should be as specified based on the following usage

- Floor: Carpet finish
- Wall: Plastered and painted
- Ceiling: Acoustic ceiling tiles (non-patterned), concealed grid

6.10 DAILY LIVING SKILLS

Depth (m) x Width (m)	Area (m ²)	Min. Clear Height (m)
varies	15.00	3.15

6.10.1 DESIGN CONSIDERATIONS

- The *Daily Living Skills* Room is to be connected to the *Central Activities Space*. It is intended as a space to teach pupils a basic level of skill in daily domestic living skills, e.g. preparing breakfast or lunch, making a bed, washing up, cleaning, folding and storing clothes, etc
- The space should be equipped with a small kitchen with 600mm deep, 900mm high, x 4000mm long kitchen unit equipped with an oven, extract hood, hob, single bowl single drainer sink, fridge, dishwasher, microwave etc. The remaining area in this room can be used with the *Central Activities Space* for other Living Skills and staged in different ways with flexible furniture to mimic an area in the home or place of work/ such as shop /café / office. Alternative layouts will be appropriate depending on the use for Primary or Post Primary pupils. Refer to *Appendix E* for example.
- This room is to be located adjacent to the *Central Activities Space* to enable it to used as a Servery for light refreshments or during events that may be held in this space. A folding partition can be installed between these rooms to ensure ease of access if desired.
- The Design Team shall liaise with the school authority at an early stage in the design process for guidance on whether height adjustable units, e.g. hob, sink unit etc. should be incorporated into this design development. Design of kitchen shall comply with the requirements of *DoHPLG Building Regulations Part M Access & Use*

6.10.2 MECHANICAL & ELECTRICAL BUILDING SERVICES ENGINEERING

- M&E Services as outlined in *Section 4.12 Mechanical Services & 4.13 Electrical Services* herein shall be provided.
- The Building Services Consulting Engineer shall liaise with the school authority at an early stage in the design development to ascertain the type of equipment being provided and if a gas supply will be required in this space

6.10.3 FINISHES

Finishes should be as specified based on the following usage

- Floor: Multi-purpose impact-absorbing vinyl floor finish. The floor in the immediate vicinity of the kitchenette should have a non-slip vinyl finish with a minimum of an R10 slip rating.
- Wall: Smooth plaster finish, painted.
- Ceiling: Acoustic ceiling tiles (non-patterned), concealed grid

6.11 PRACTICAL ACTIVITY ROOM

Depth (m) x Width (m)	Area (m ²)	Min. Clear Height (m)
varies	50.00	3.15

6.11.1 DESIGN CONSIDERATIONS

- a. Only associated with *post primary school accommodation*, this room can have a multiplicity of uses ranging from I.T. skills training to woodwork, home economics etc. The specific use for the room will need to be determined with the School Authority at the earliest stage in the design stage in order to determine the building services element including dust extraction requirements.
- b. Where it is intended to fit out the space with specialist equipment, e.g. lathes, the layout, location and operation must be in compliance with Health & Safety requirements. Full layout details must be included as part of a Stage 2a submission and must be available before the project proceeds to a planning application.

6.11.2 MECHANICAL & ELECTRICAL BUILDING SERVICES ENGINEERING

M&E Services as outlined in *Section 4.12 Mechanical Services & 4.13 Electrical Services* herein shall be provided

6.11.3 FINISHES

Finishes should be as specified based on the following usage

- Floor: Multi-purpose impact-absorbing vinyl floor finish
- Wall: Plastered and painted
- Ceiling: Acoustic ceiling tiles (non-patterned), concealed grid

6.12 CIRCULATION & OBSERVATION

6.12.1 DESIGN CONSIDERATIONS

- a. Corridors should be regular in shape without projections which could create an unacceptable risk. There should be a sufficient clear unobstructed corridor width to allow two adults to assist a pupil walking side by side.
- b. Discreet observation into the classroom will sometimes be required by teaching staff and others for the purposes of training or for the development of individual teaching programmes for parents etc. An observation panel of one-way mirrored glass or integral blinds in a double glazed unit, depending on the design approach, should therefore be provided from circulation into each classroom,
- c. Design Teams should also consider the movement of pupils with visual impairment from the outside to the inside of the building. Pupils with some visual impairment conditions moving into a building from the outside can experience temporary blindness if the interior of the building has a contrasting light level to that outside. Consideration with regard to equalising daylight levels across threshold areas, through the judicious provision of roof lights where possible should be considered.

6.12.2 MECHANICAL & ELECTRICAL BUILDING SERVICES ENGINEERING

Corridor lighting in SEN accommodation shall be manually controlled via two-way switches located at either end of corridors

6.12.3 FINISHES

Finishes should be as specified based on the following usage

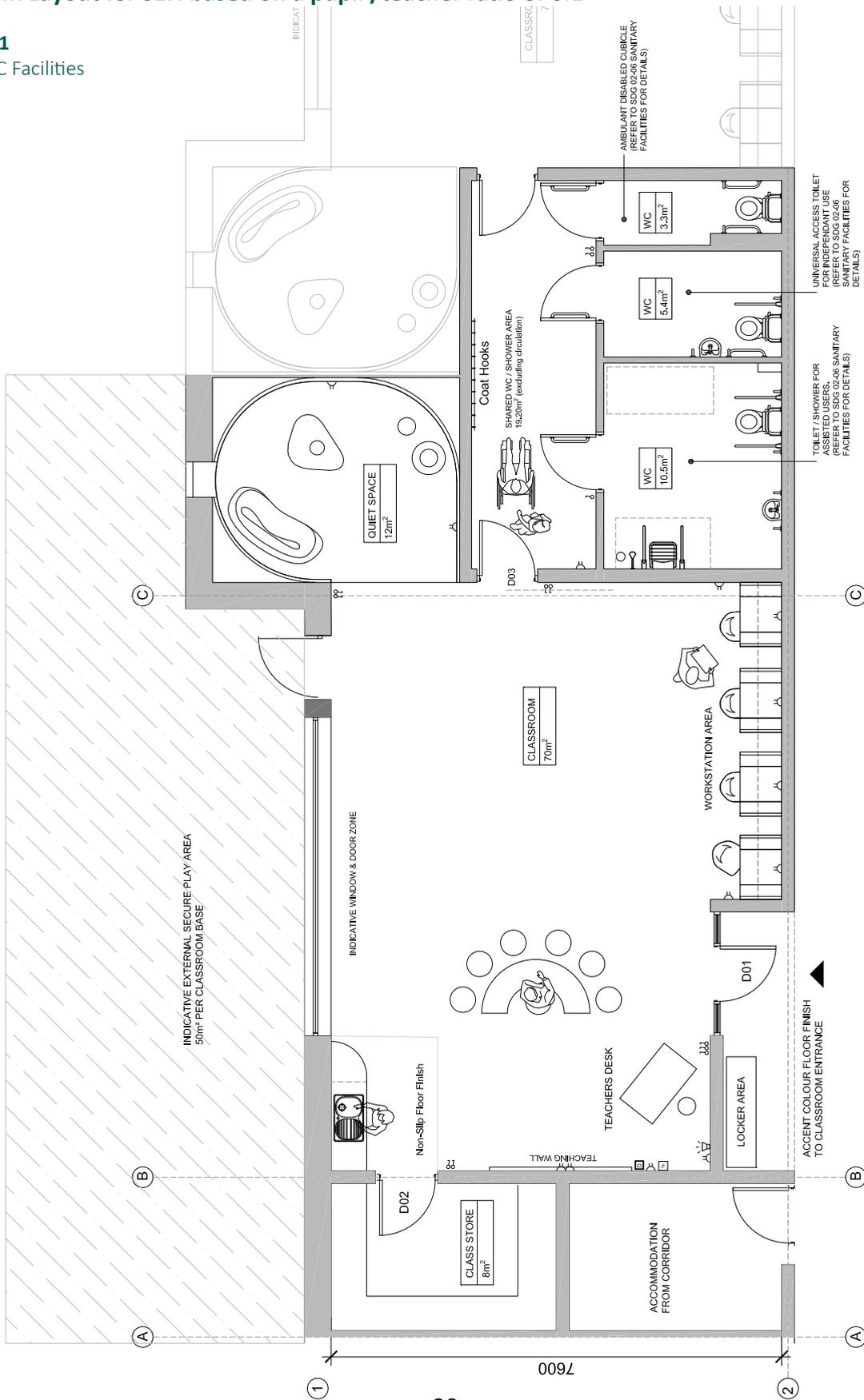
- Floor: Multi-purpose impact-absorbing linoleum/vinyl floor finish
- Wall: Smooth plaster finish, painted.
- Ceiling: Acoustic ceiling tiles (non-patterned), concealed grid

APPENDIX A: FLOOR PLAN DRAWINGS

Classroom Layout for SEN based on a pupil /teacher ratio of 6:1

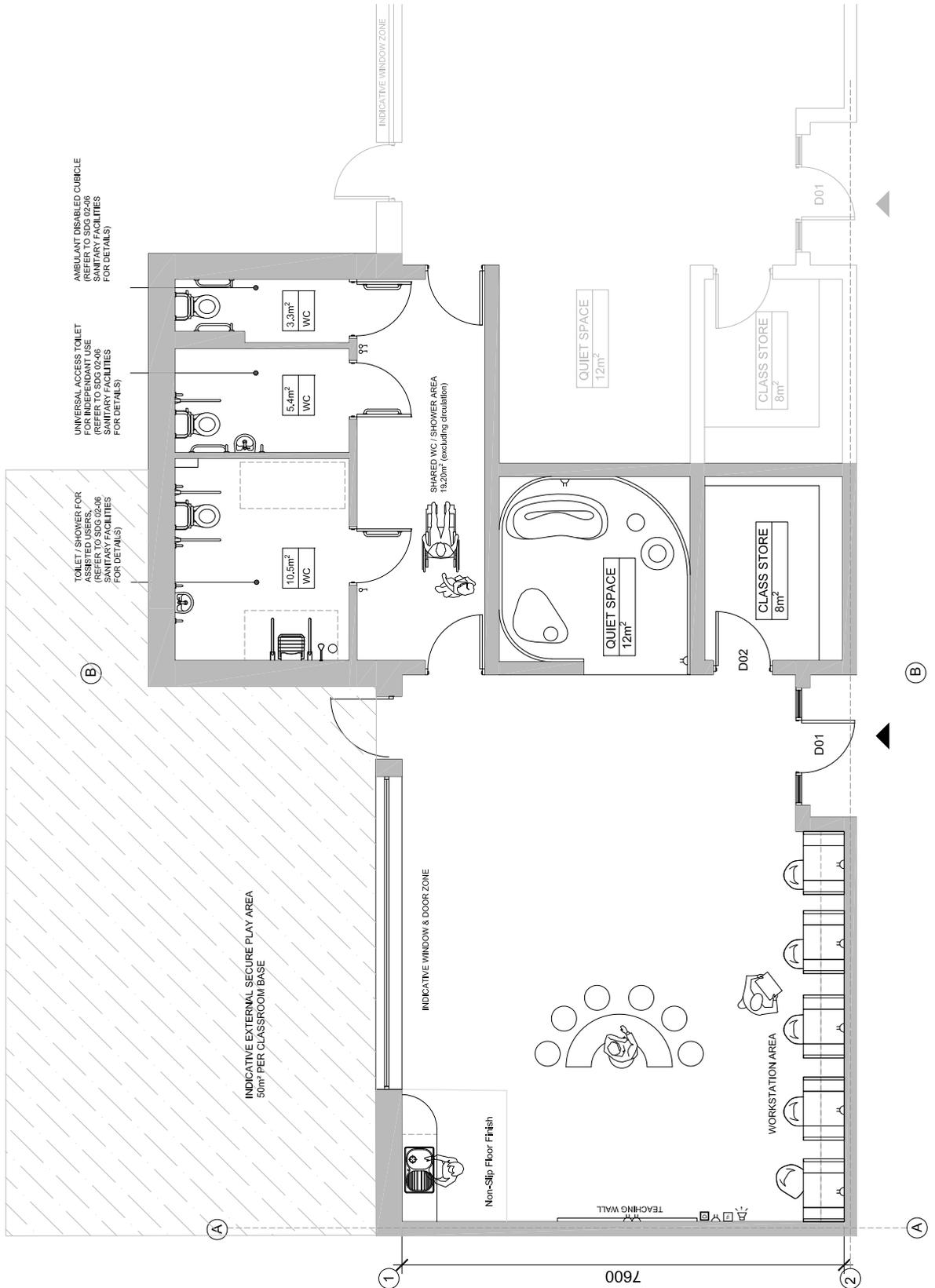
OPTION 01

Shared WC Facilities

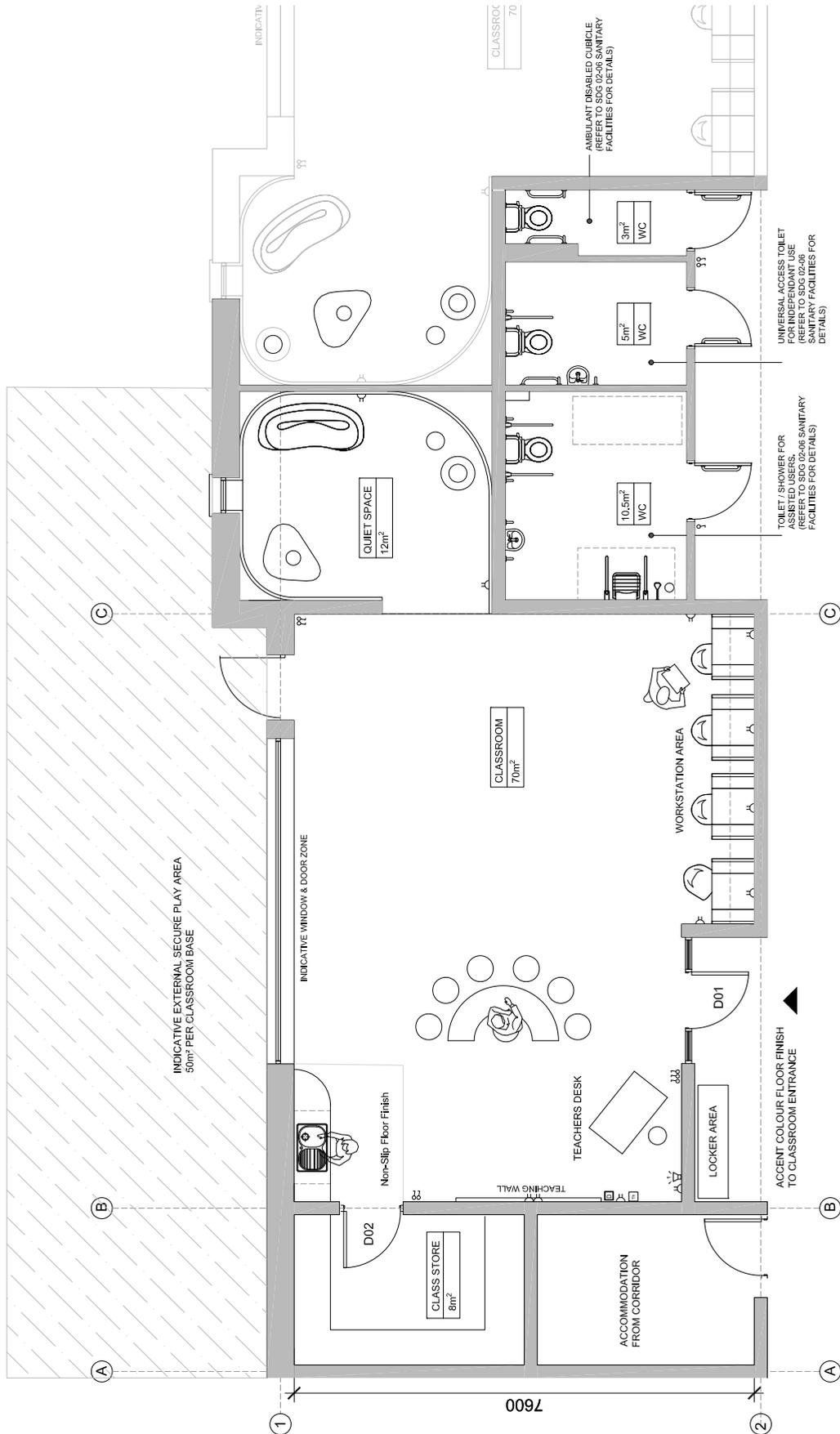


OPTION 02

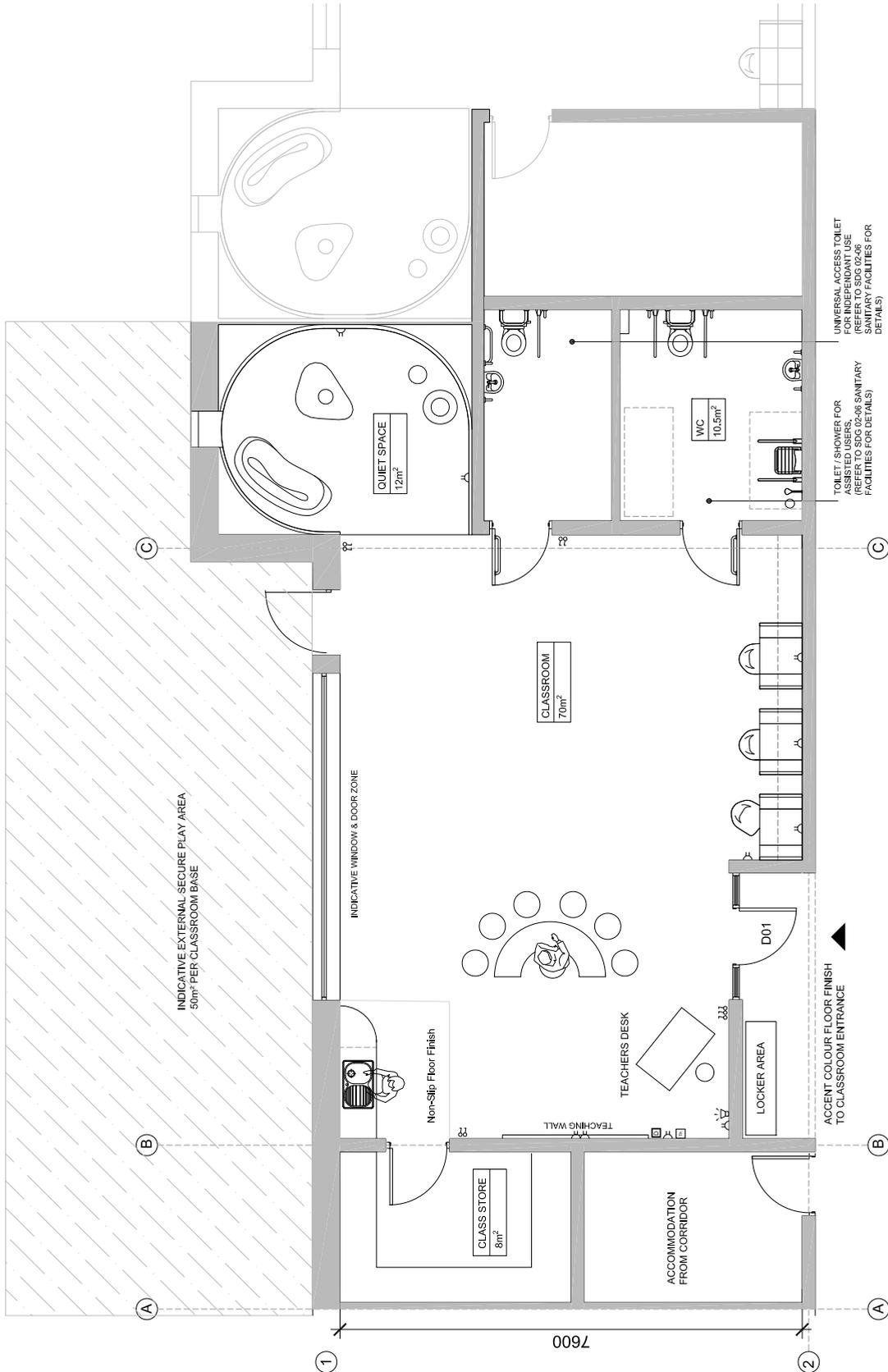
Shared WC Facilities



OPTION 03 - Corridor Access to WC
 Suitable for Senior Classrooms

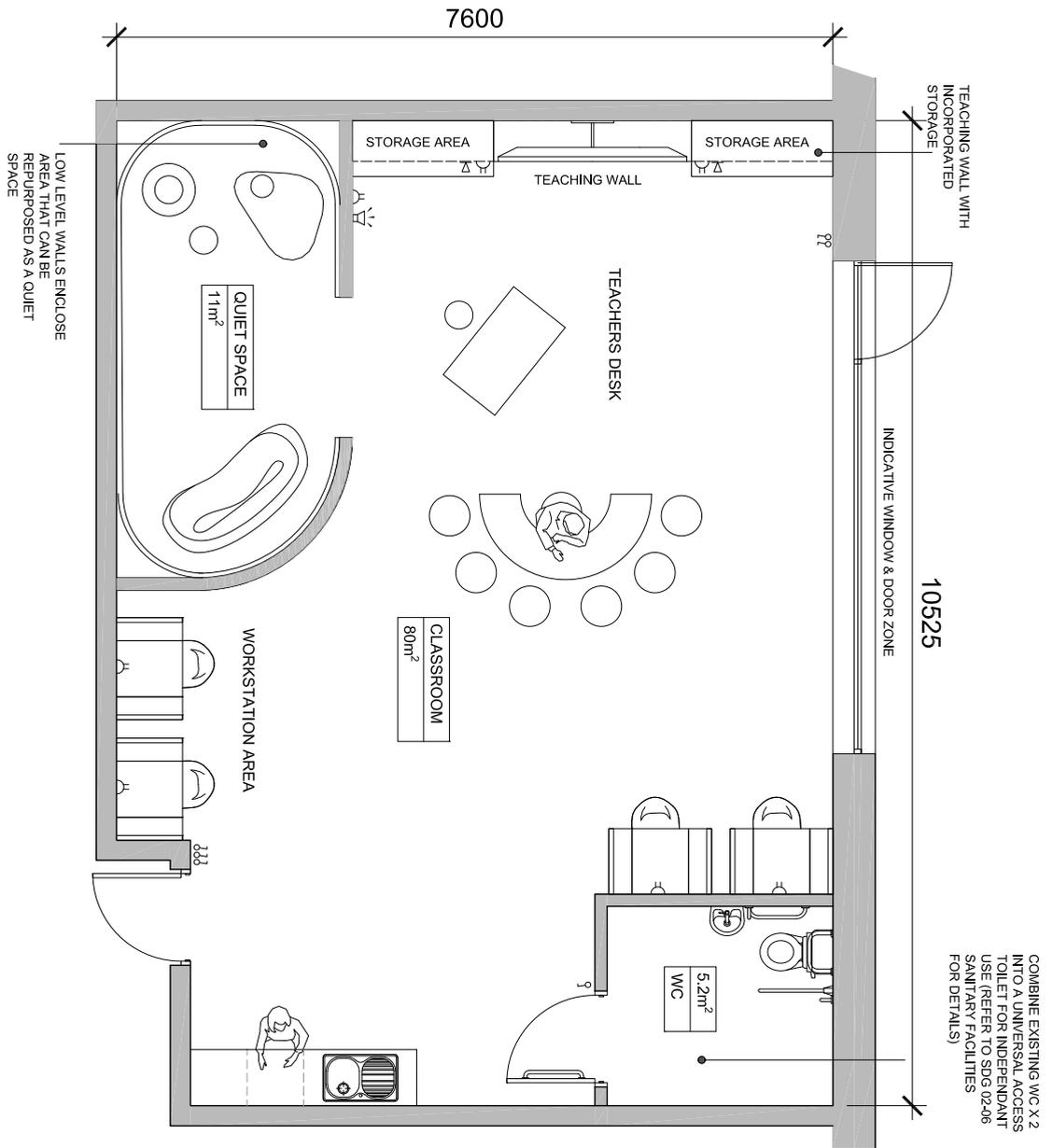


OPTION 04 - Early Intervention Classroom



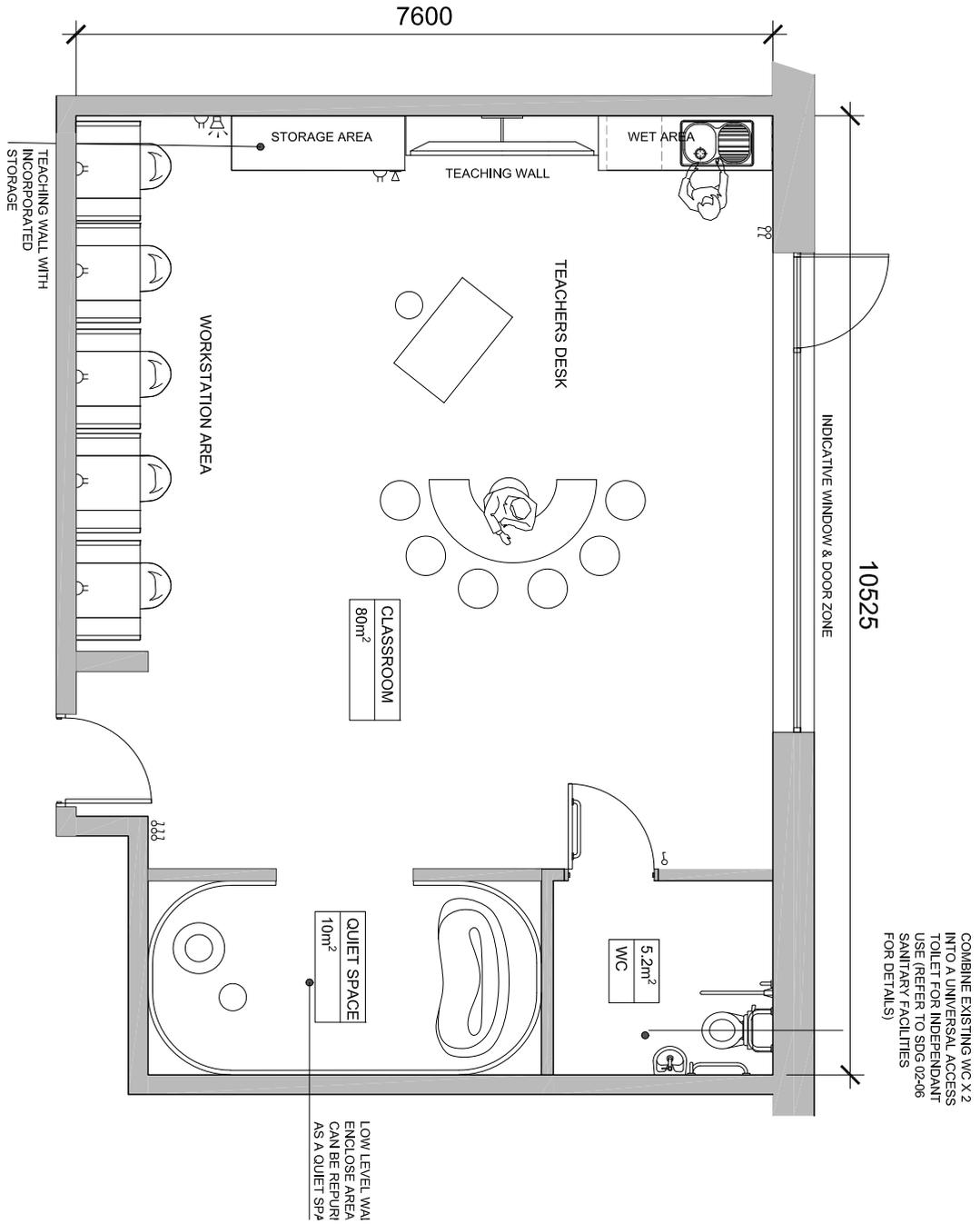
Option 1

Sample Re-Purposed Classroom Layout



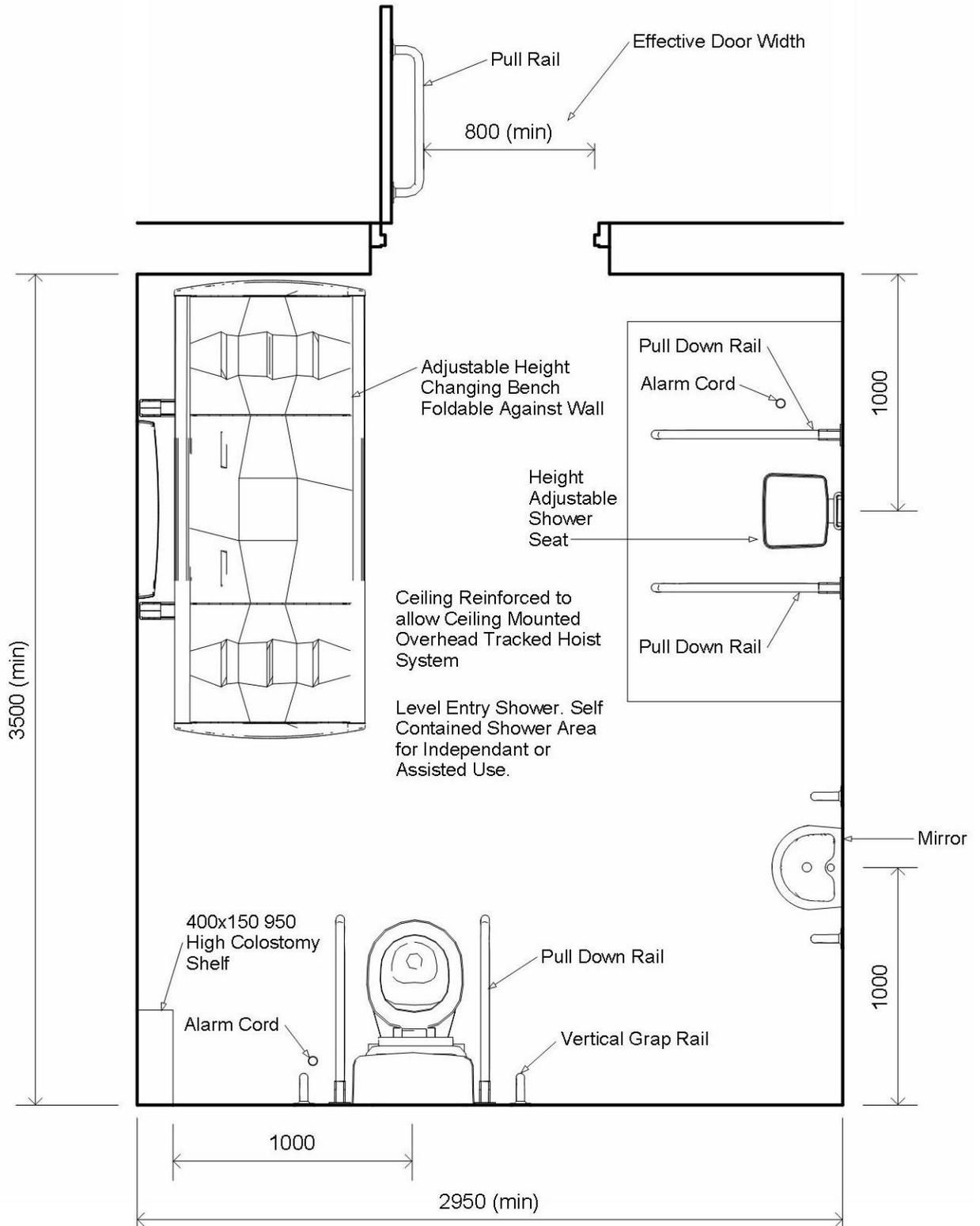
Option 2

Sample Re-Purposed Classroom Layout

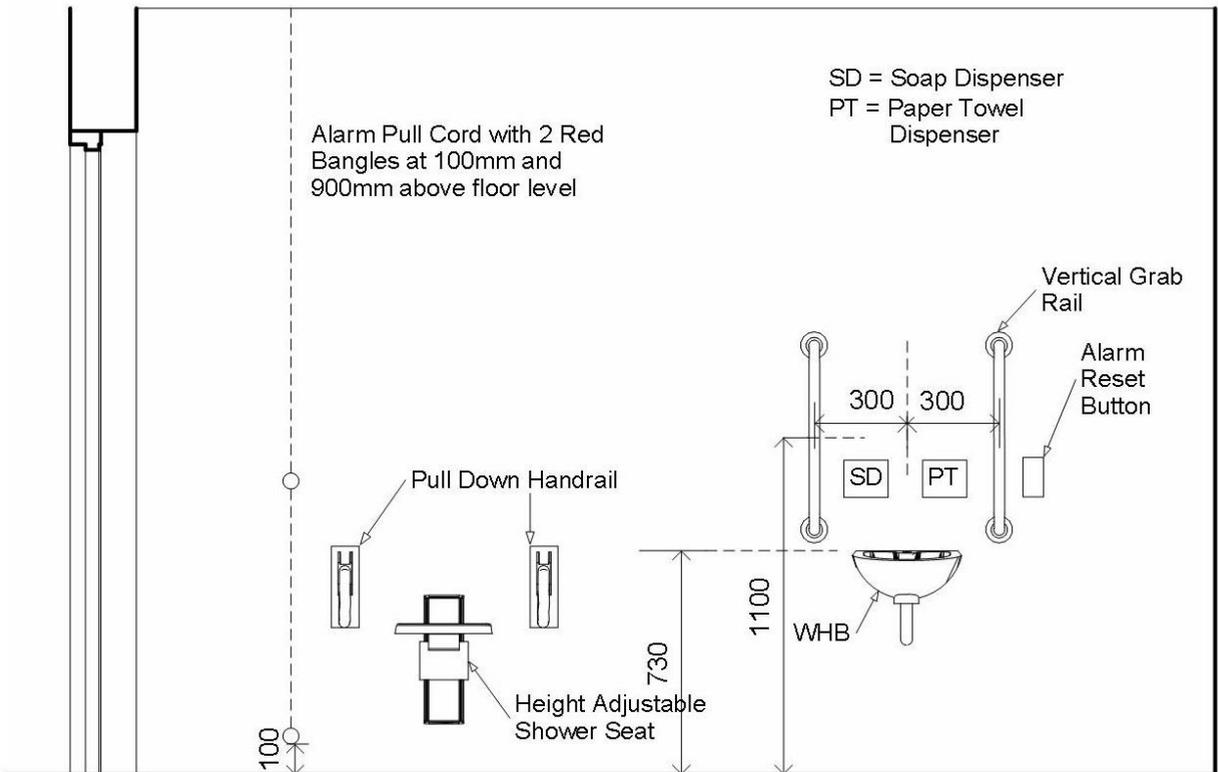
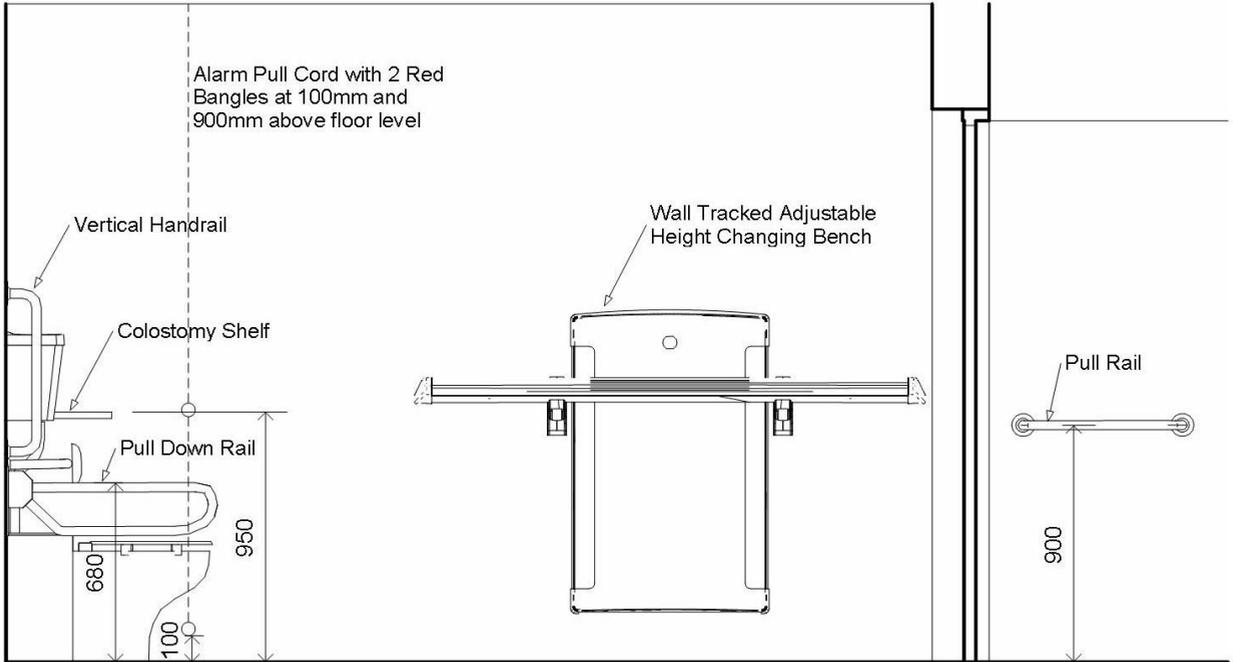


APPENDIX C: SANITARY FACILITIES

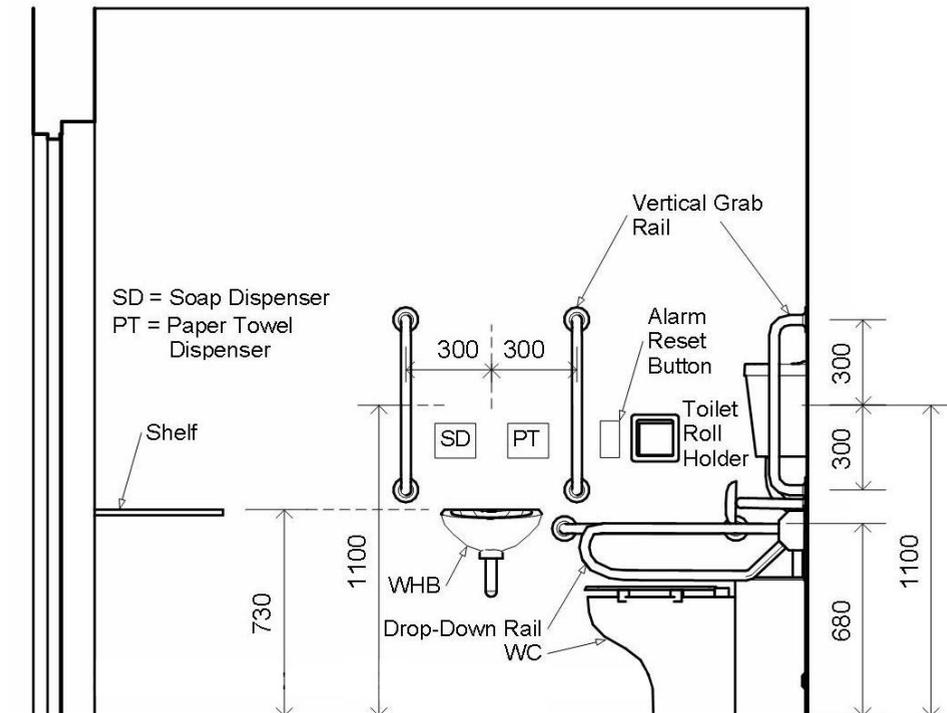
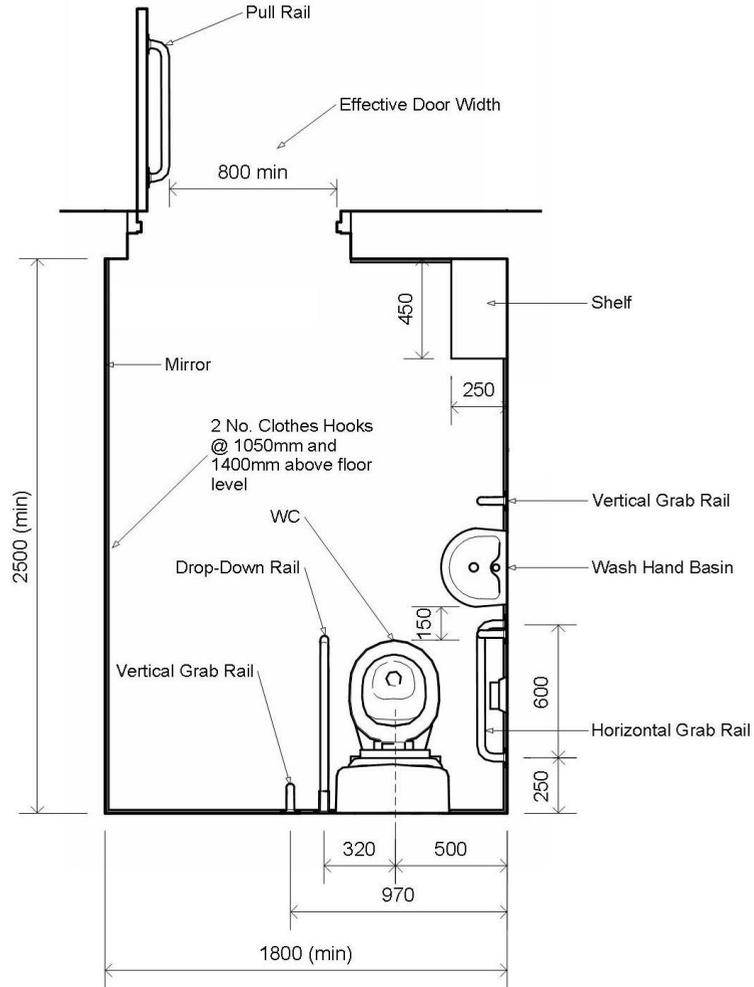
Plan - Unisex Toilet/Shower for Assisted Users



Elevations - Unisex Toilet/Shower for Assisted Users



Plan & Elevation - Unisex Universal Access Toilet for Independent Use



APPENDIX D: SUGGESTED PLANS FOR TEMPORARY PREFAB ACCOMMODATION

Temporary Accommodation for 1 Classroom SEN Base

USING TYPICAL 3m x 7.5m & 3m x 9.2m MODULES

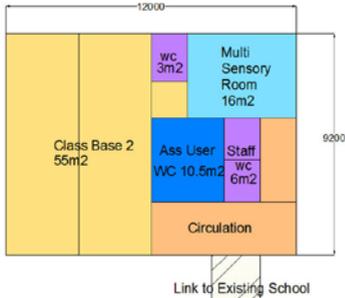


FIGURE 1 - incl. Multi Sensory Room

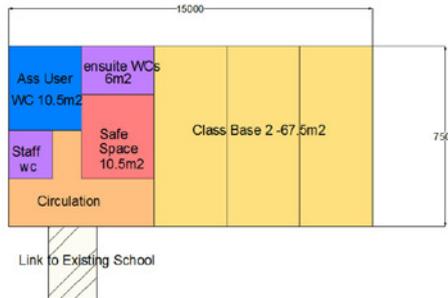


FIGURE 2 - with Larger Classroom

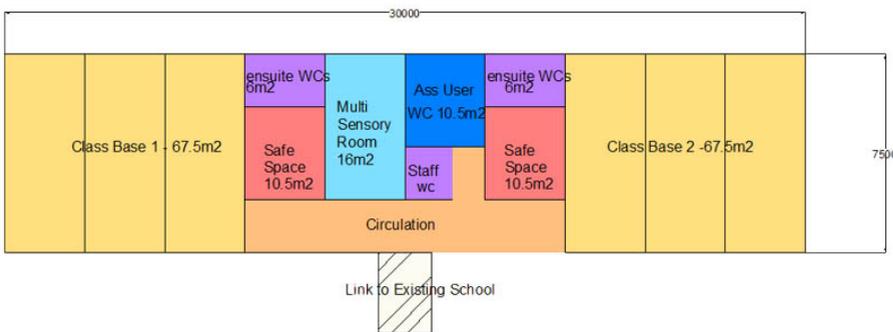


FIGURE 3 - with shared AUWC

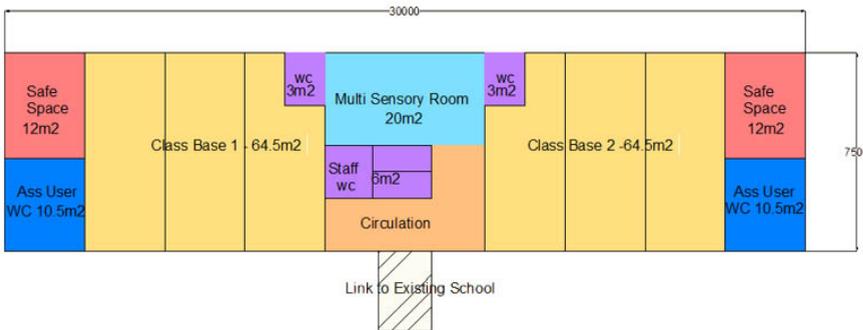


FIGURE 4 - with 2 AUWC for Early Intervention

USING TYPICAL 3m x 9.2m MODULES

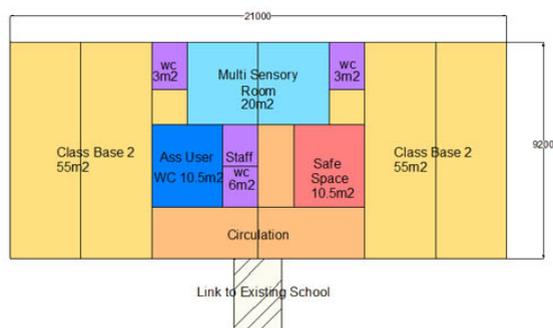


FIGURE 5 - Access to MS Room from Classrooms

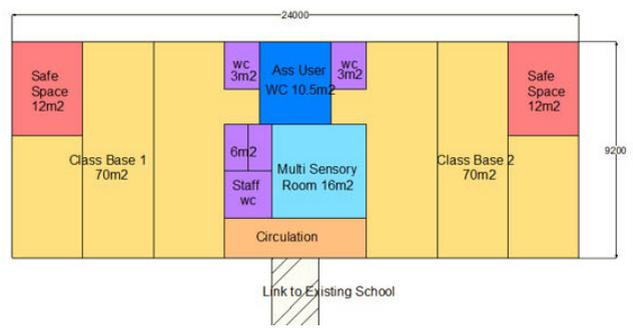
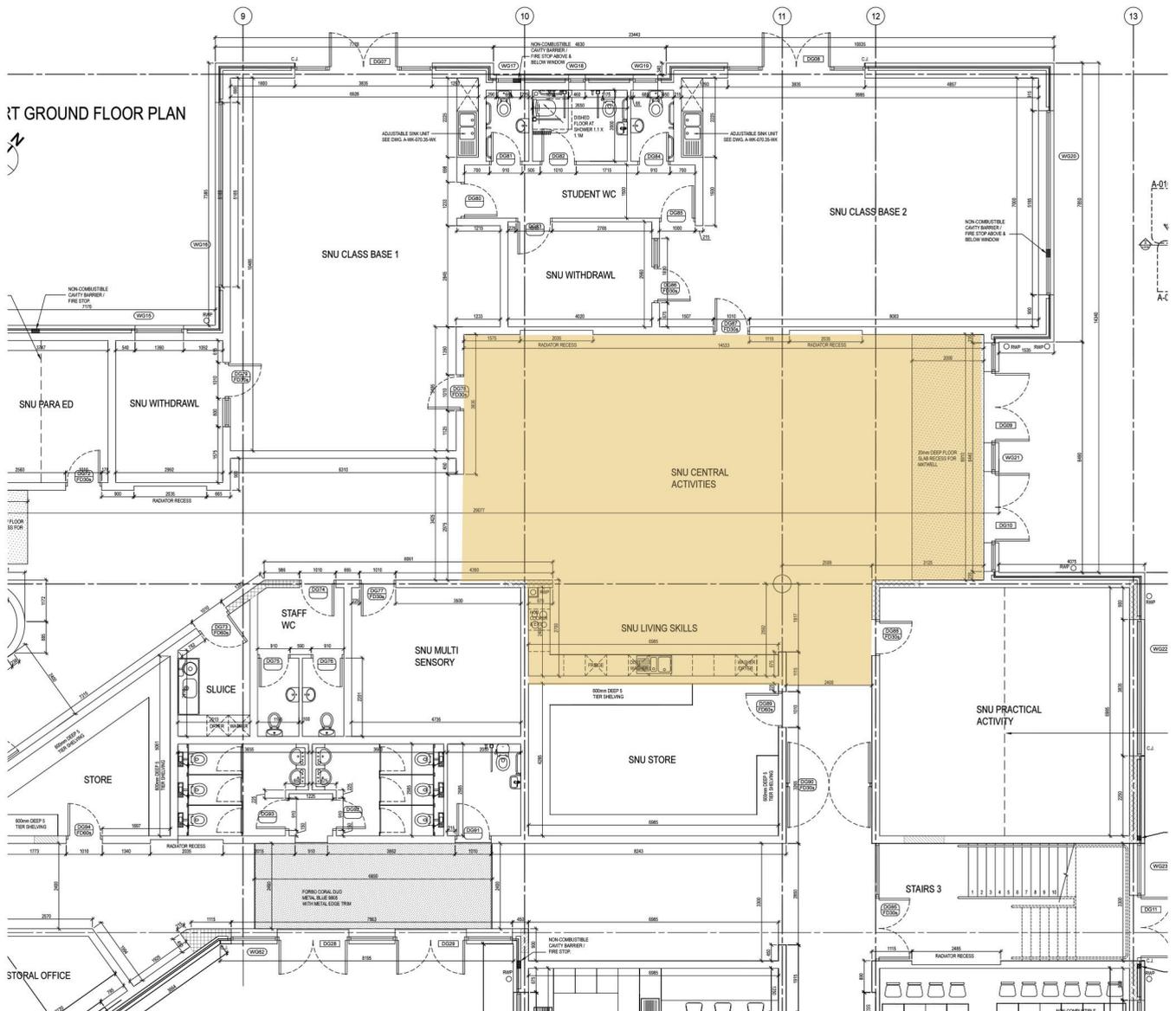


FIGURE 6 - Larger Classrooms 2 x Quiet Space

APPENDIX E: SUGGESTED LAYOUT PLAN FOR DAILY LIVING SKILLS

SAMPLE PLAN OF DAILY LIVING SKILLS AS PART OF THE CENTRAL ACTIVITIES SPACE

Donabate Community School By McoH Architects



Case Study Primary - 2 Classroom SEN Base

Scoil Christ Rí - Limerick

Drake Hourigan Architects

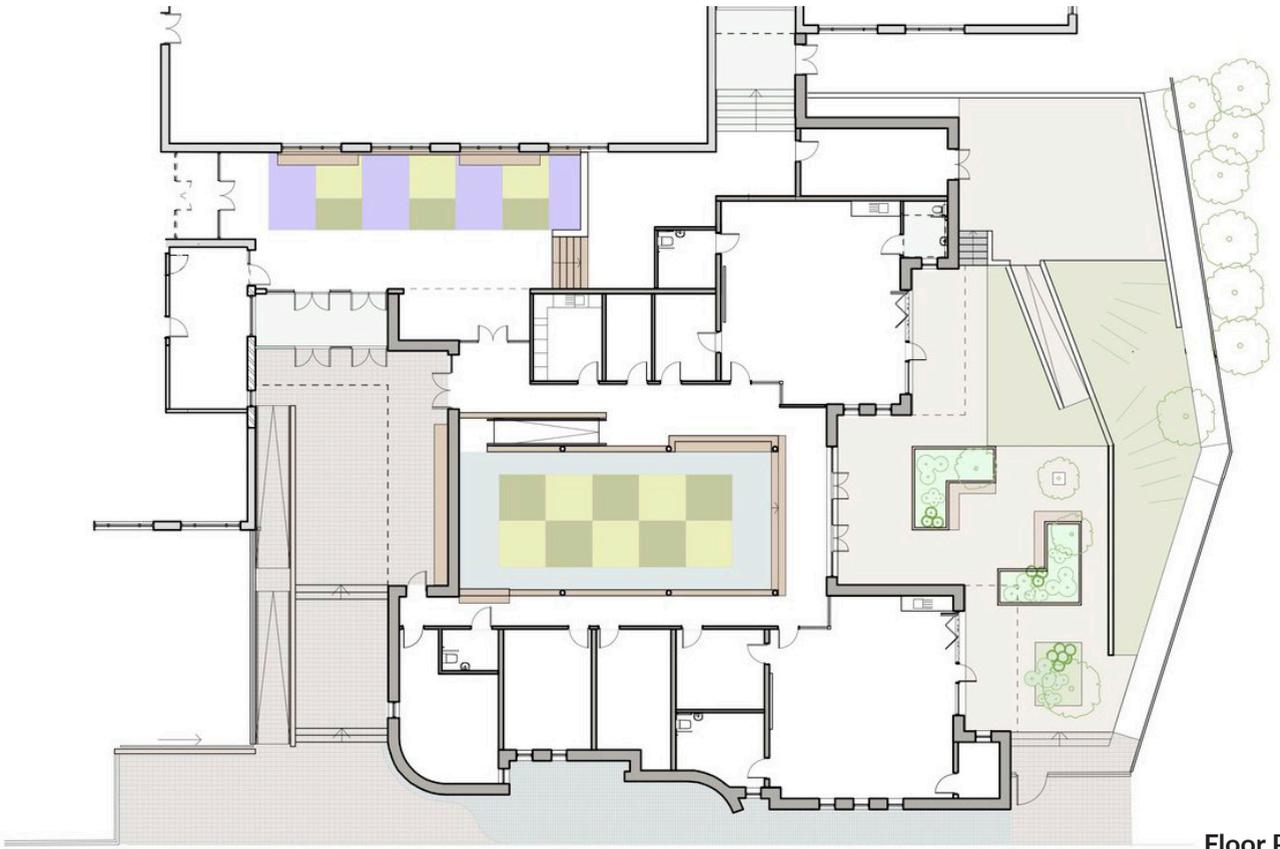


Winner of the RIAI Public Choice Awards 2019 and selected as Building of the Year 2019 - Educational.

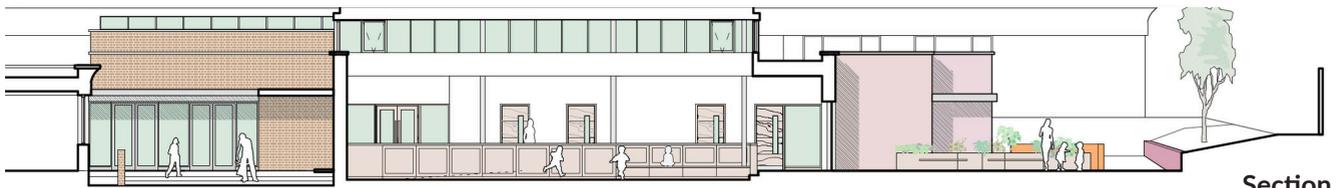
Designed in close collaboration with the principal and teachers, this space provides for a two classroom Autism Spectrum Disorder (ASD) suite with a central activities space and a sensory garden, new entrance courtyard and atrium space for whole school circulation. Inclusion, compassion and flexibility of use were key drivers in the design.

The new accommodation facilitates the school and teaching staff in providing pupils with the necessary educational and social supports when starting school. By including these facilities within the mainstream school setting, children will develop social skills through participation in educational and social activities with their peers, with a view to moving to mainstream classes as they progress through their school years.

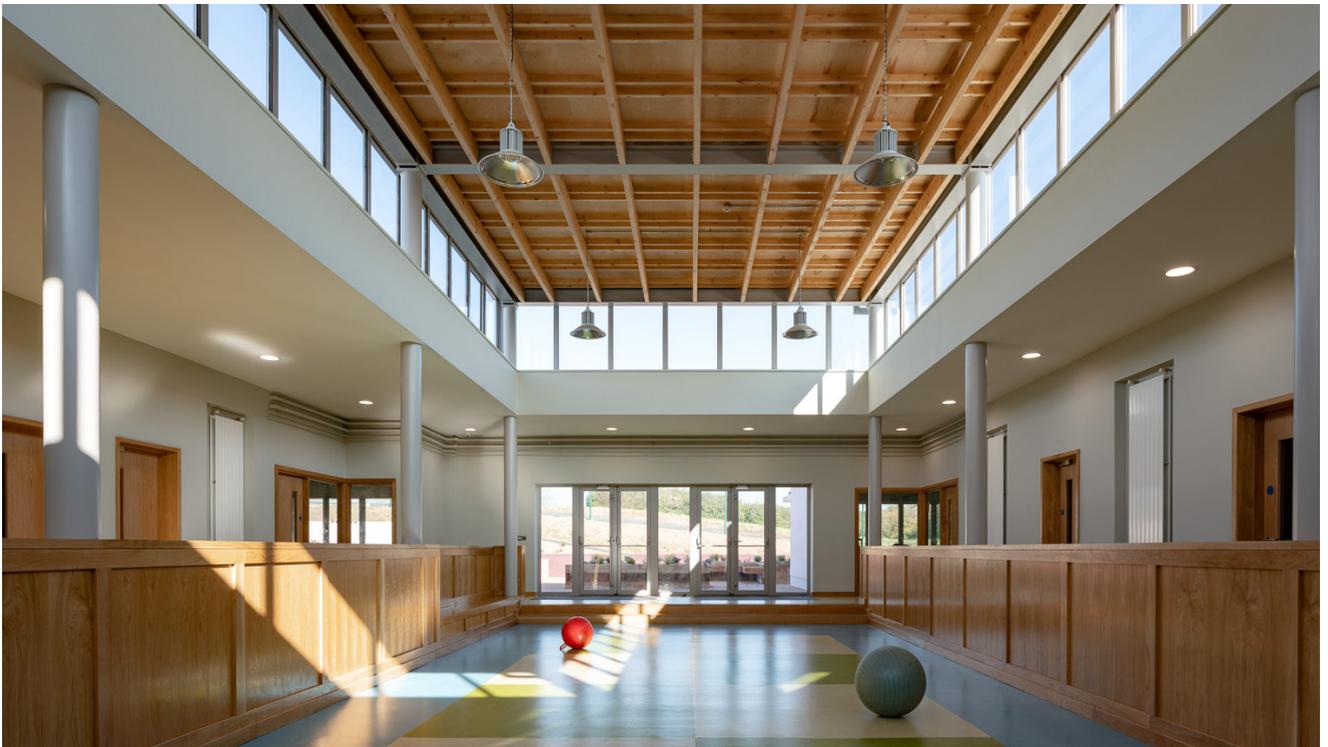




Floor Plan



Section



Case Study Primary- 5 Classroom SEN Base

Educate Together - Mullingar

Department of Education

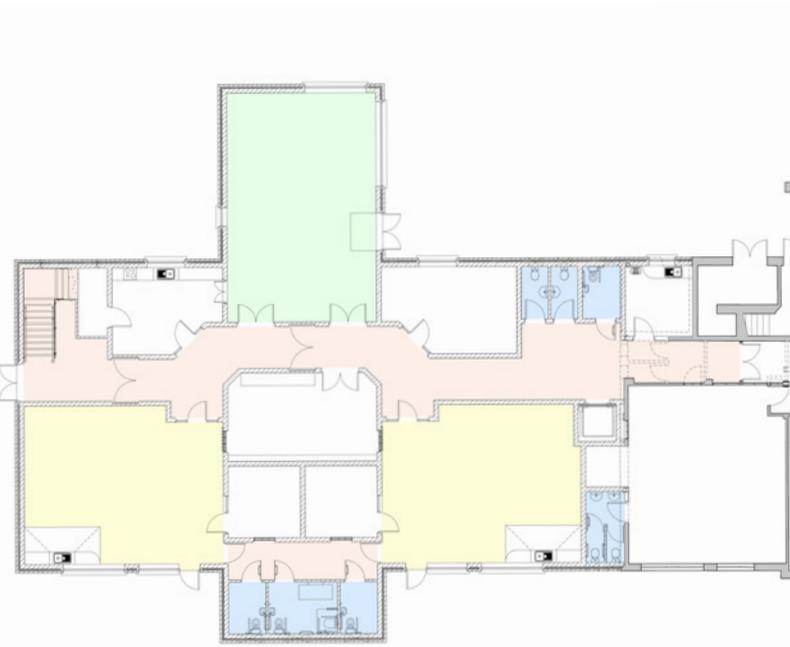


A form sympathetic with the existing, the extension to Mullingar Educate Together National School provides the necessary facilities to allow the tutoring of students with special educational needs within the school's population. Delivering five new classroom bases, together with the required ancillary spaces, such as smaller tuition rooms that permit more personal learning and a large Central Activities Space for physical exercises that strengthens the body as well as the mind.

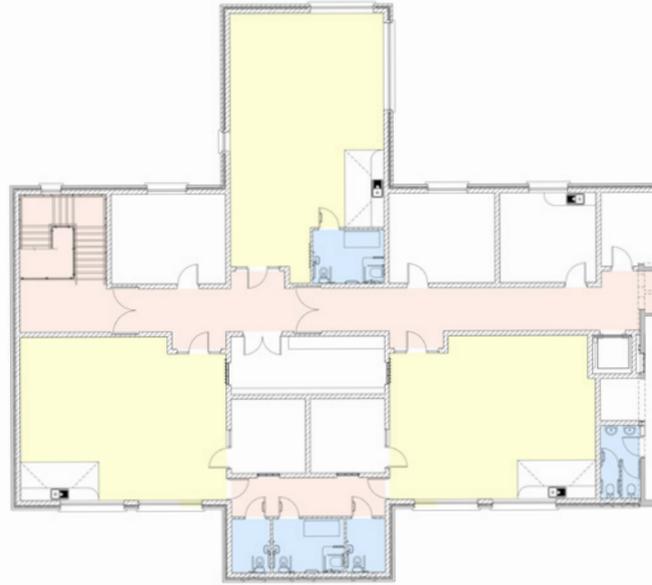
Conceived around linear circulation that extends from the existing, and complementing the current two storey arrangement, the extension presents a strong architectural statement that respects the pre-established style.

Pushing the existing recognised convention of single storey arrangements for special educational needs units, forced by the constraints of the site, this addition has two storeys as the solution to conserve external space. The design decision was developed with the agreement of the school's management, who felt that an added value to this approach would be that the students would benefit from been exposed to arrangements that they would regularly encounter in their life.





Ground Floor Plan



First Floor Plan



Central Activities Space

Case Study Primary- 2 Classroom SEN Base

Holywell Educate Together - Swords

Department of Education

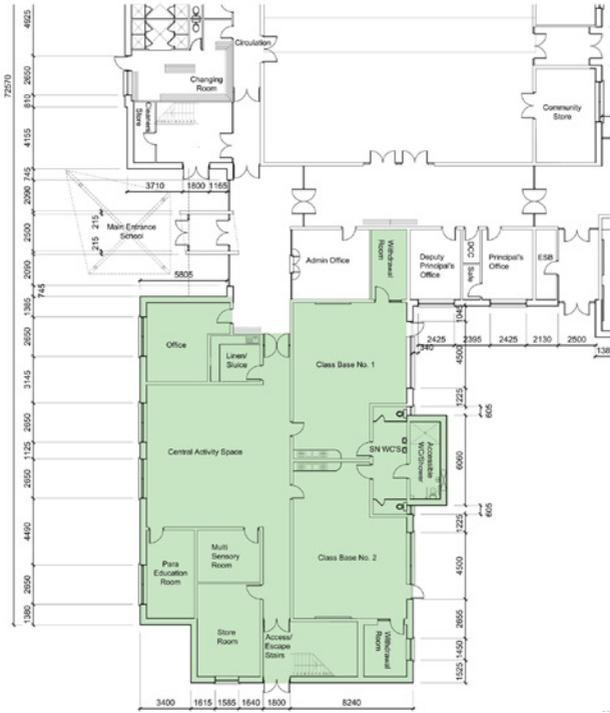


Site Plan - SEN Base highlighted in orange

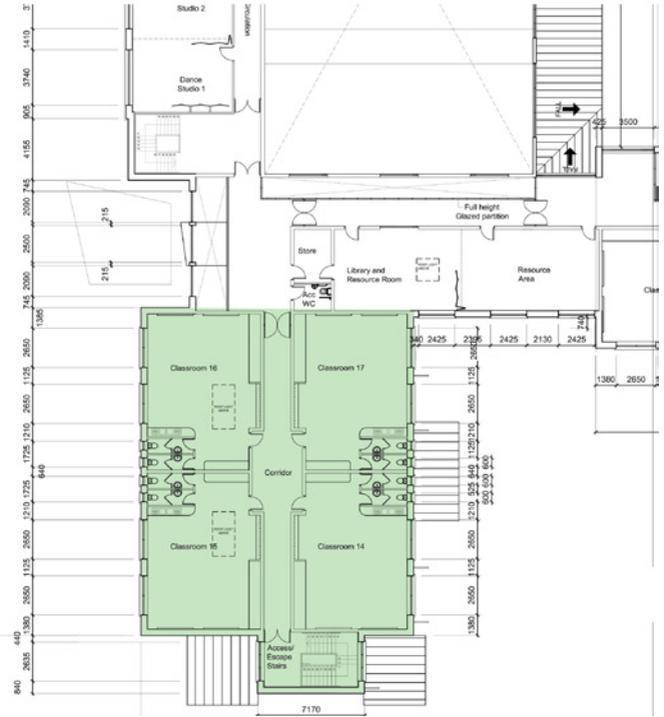


Holywell Educate Together National School, Swords, completed in 2012, is a new 3 storey 24 classroom school. The School is linked to a shared community facility containing a general purpose hall, changing facilities, store space, servery, meeting rooms, office space and ancillary accommodation.

The school features a 2 classroom SEN base (highlighted on site plan in orange). The SEN forms the ground floor of a wing of the school. The first floor, above the SEN fits 4 standard classrooms.



Ground Floor Plan - 2 Classroom SEN Base



First Floor Plan - 4 Standard Classrooms



Central Activities Space

Case Study Post Primary - 2 Classroom SEN Base

Kingswood Post Primary School

ARPL Architects

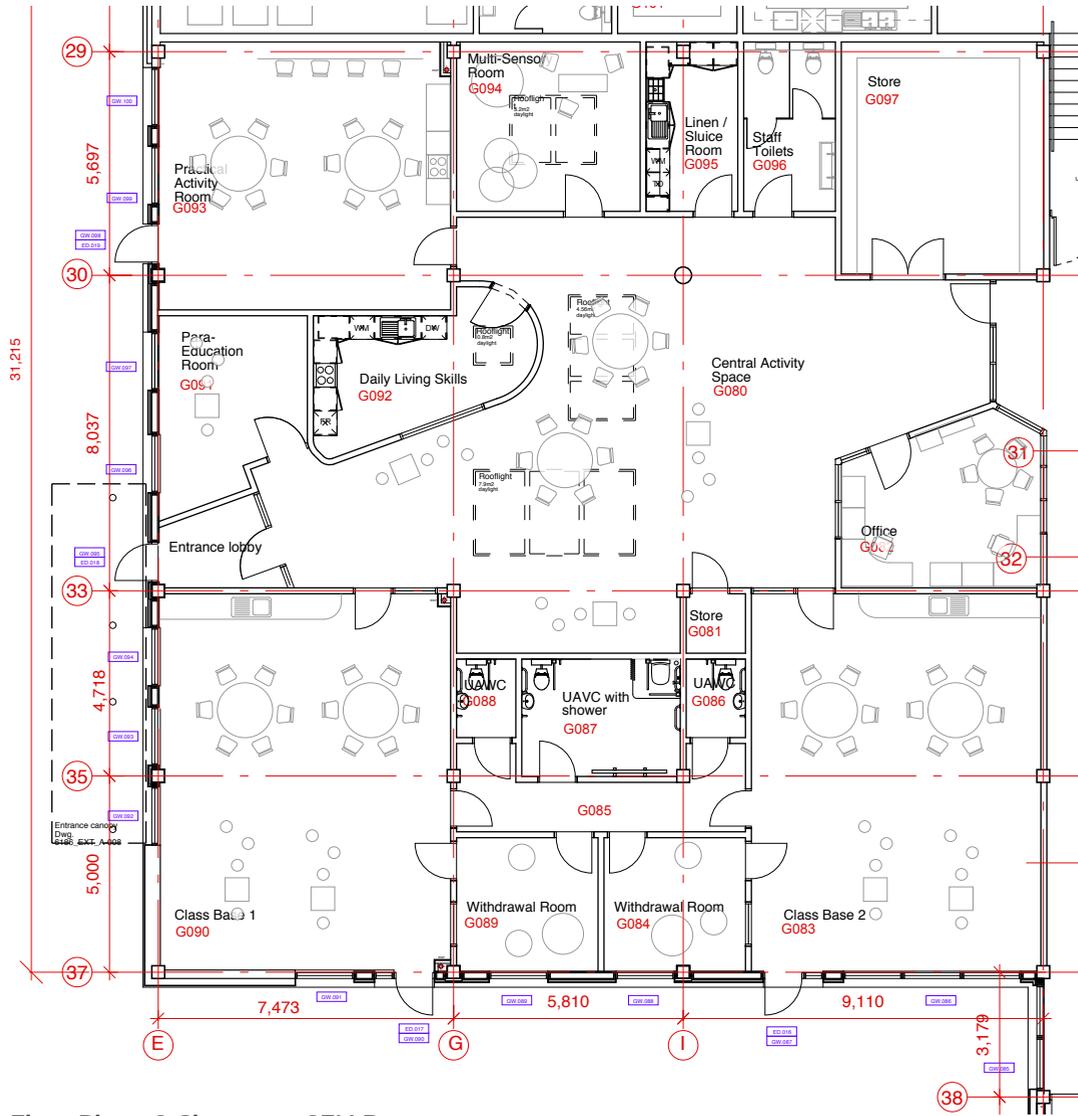


Site Plan with SEN outlined in red



The winner of an international design competition Kingswood school is a 1,000 pupil secondary school in Dublin.

The design by ARPL arranges clusters of teaching spaces around a central "public square" allowing the circulation to become a series of social or teaching breakout spaces. These ideas are combined with a colour and art strategy to create a unique arrangement of places and special spaces for the school children.



Floor Plan - 2 Classroom SEN Base



Central Activities Space



Central Activities Space



Practical Activity Room

Case Study Post Primary - 4 Classroom SEN Base

Skibbereen Community School

Wilson Architecture



The Special Needs Unit (SNU) is located on the ground floor of the school's western wing, located a short distance from the main school entrance allowing for convenient, lift free access. This also provides connectivity to the other facilities within the school. An independent access door is also provided adjacent to a set down parking area, allowing the main school entrance area to be bypassed.

The SNU accommodation comprises of 4 Class Bases, Central Activities Space, specialist teaching spaces and ancillary accommodation. A linear circulation route connects the Central Activities Space to teaching and ancillary spaces. Access is provided from each Class Base to the External Play Area.

Spaces located adjacent to the SNU typically comprise of staff spaces, meeting areas and service spaces to minimise noise transfer to and from the SNU. This creates an optimal learning environment.



All Aerial Shots © Oakwood Aerial Photography



Floor Plan - 4 Classroom SEN Base



Classroom Base

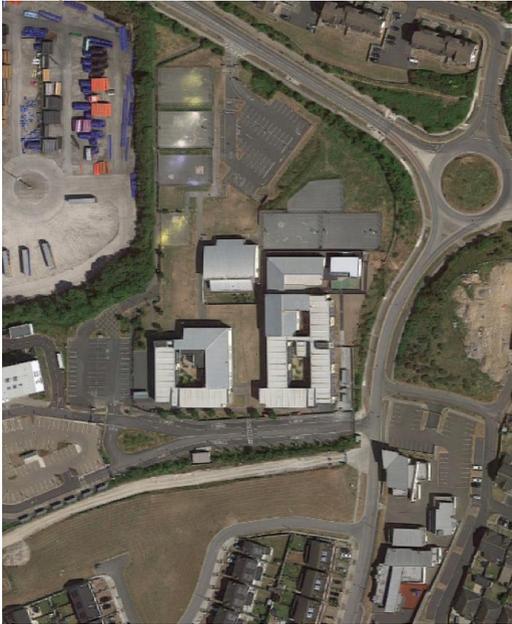


Para-Education Room

Feasibility Study for Re-Purposing Existing 2 Classroom SEN

Gaelscoil Baile Brigín, Co. Dublin

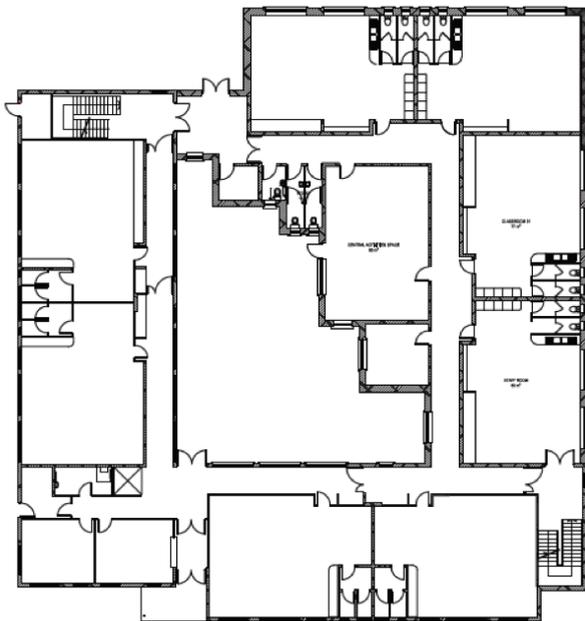
Department of Education



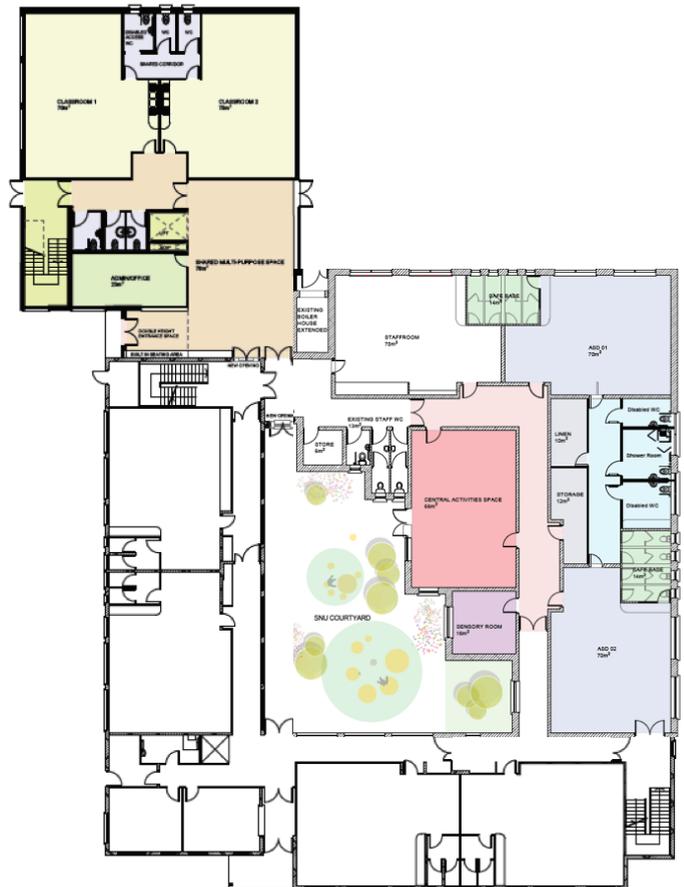
In developing the brief for this project the complexity and constraints of the site has led the DoES to radically think of alternative locations of providing the SEN base.

The proposal is to locate the SEN Base to the North Eastern Wing of the school. This will provide successful integration of the SEN Base within the existing school. The existing classrooms and staffroom can be re - configured to provide two no. SEN classrooms with ancillary accommodation which is positioned around the centrally located activities space. This Central Activities space will open directly onto the enclosed courtyard space creating a safe environment for SEN external play.

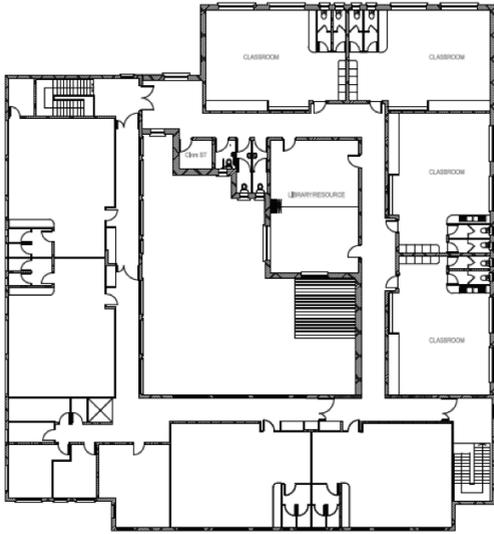
A new two storey extension providing four mainstream classrooms will replace the deficit created by the SEN accommodation. The two storey extension will be smaller in footprint than the current strategy resulting in a decreased amount of groundworks.



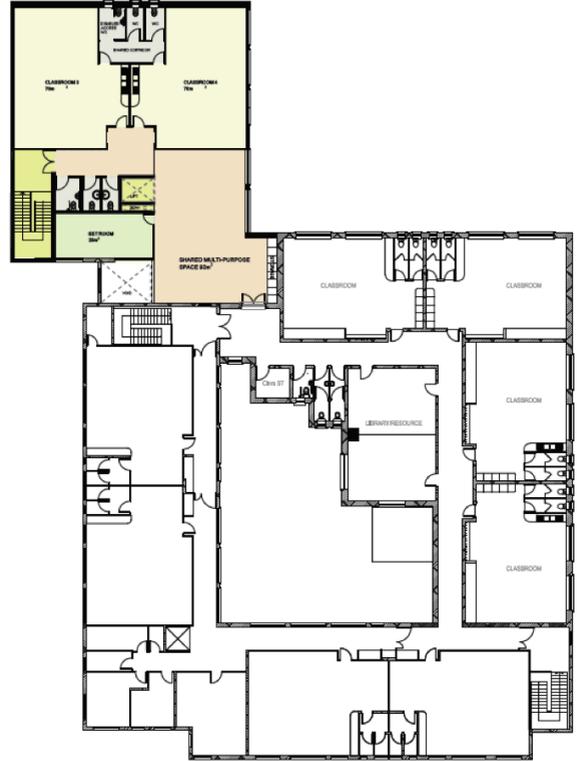
Existing Ground Floor Plan



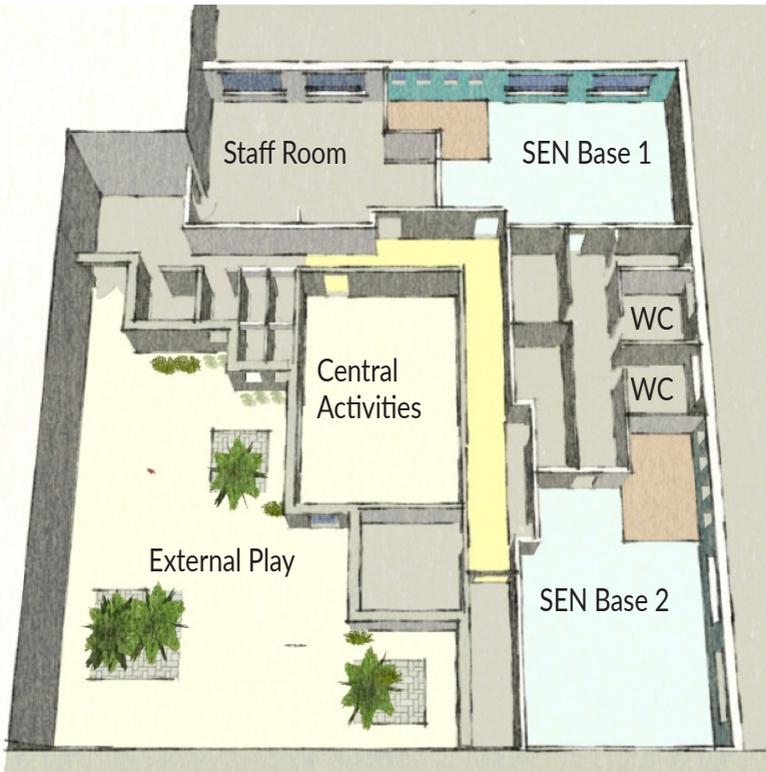
Proposed First Floor Plan



Existing First Floor Plan



Proposed First Floor Plan



Proposed Re-Purposed SEN



Proposed Extension & New Entrance

Case Study Primary - Re-Purposed Accommodation

St. Marys Junior National School

Rowlagh, Dublin 22



St. Marys Junior School have 2 SEN Classes, both of which use re-purposed mainstream classrooms.

The classroom shown here was once the computer room. The room has two WCs en suite, one of which is used as a shelved storage room. They have provided individual workstations for 8 which enables the teacher to use one as her own workstation. Moveable furniture is used to create specific spaces for activities giving the students security. A small sink has been installed.

A Quiet Space was built in the corner that also acts as a small multi sensory room as the curtains can be drawn and lights turned on.

They have created a secure classroom by fitting additional high door controls to ensure the students are safe within the space.

The school has made use of any additional space they could find included creating a small garden in an unused space in their yard.



Workstations were created from existing Computer Desks



Small Sink & WCs



Teaching Wall



Small Garden in Yard



Extra Security on Exit