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Standard Hub Layouts

Secondary Schools

Version 1.0 - Examples for reference



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Please contact the SINSW Design and Technical Standards team if you have any comments or queries on this package

Last Update: June 9, 2021

Why are we doing this?

- Consistent approach across all new school projects (and new school buildings)
- Less time spent in design development
- Product that is aligned with contemporary pedagogy (flexible learning environments) and backed by research evidence
- Design solution that allows for off-site manufacturing and assembly via Modern Methods of Construction
- Provides design principles that can be applied to existing schools where upgrade projects are proposed

OVERVIEW

Example Hub Layouts : Secondary Schools

This package provides standard hub layouts for each core facility and learning space required within a secondary school.

This package is intended to guide the development of master plans and concept design for new schools and new school buildings. The design principles that accompany each layout should be used as a guide for upgrade projects.

The core facilities and specialist learning units have been simplified into 4 categories : x-small, small, medium and large.

The spaces have been designed to fit within the planning grid of 9m x 7.5m to allow for Modern Methods of Construction (MMC), whether via a volumetric or 'kit of parts' approach. The areas have been determined in alignment with the existing Schedule of Accommodation.

The layouts have been designed efficiently and demonstrate a reduction in internal areas purely for the purpose of movement, and the provision of floor space that is able to be accessed appropriately and used flexibly.

The hub layouts have been developed to align with contemporary pedagogy (flexible learning environments) and developed in collaboration with SINSW subject matter experts. A set of design principles accompanies each plan to clarify the intent of the layout and highlight important considerations for the design.

In addition to the hub layouts, a functional relationships diagram explains key adjacencies between hubs, neighbourhoods and general operation of the school. This should be used to guide the development of master plans for new schools and may also be referred to when new school buildings are being proposed on existing school sites.

This document should be used alongside the Master Planning Guidelines for Schools, accessible via the EFSG website.

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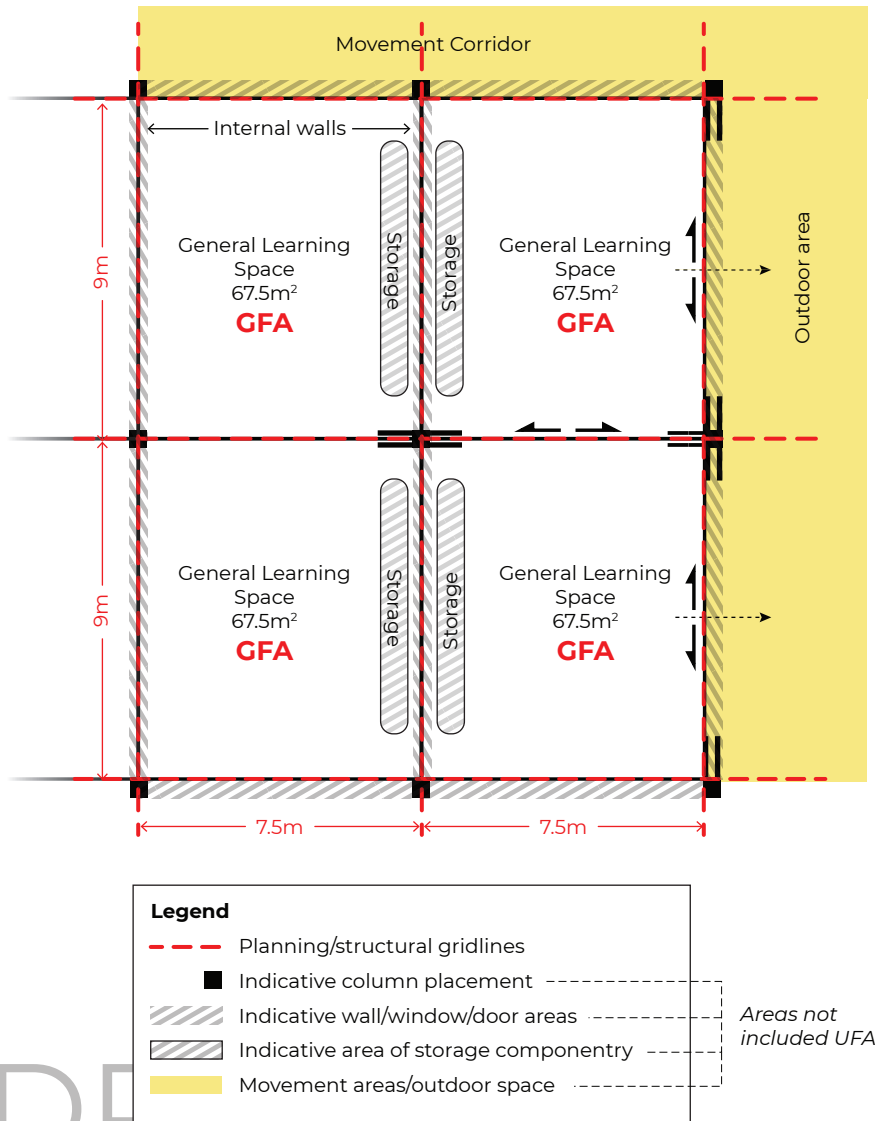
EXAMPLE LAYOUT

Example Hub Layout – School Infrastructure NSW, June 2021

Definitions + Details

Acronyms + Areas

Application of the planning grid



Floor Areas

FECA	Fully Enclosed Covered Area	Includes all spaces that are enclosed with a roof, a façade and a floor slab. Including internal stairs, engineering, plant and circulation
GFA	Gross Floor Area	Gross floor area is the sum of the floor area of each floor of a building, measured from the internal face of external walls, or from the internal face of walls separating the building from any other building. GFA combines the area of UCA and FECA NOTE: Areas shown on Example Layout plans are indicative of Gross Floor Area - this does not account for wall thickness, columns, and other non-useable space
UCA	Unenclosed Covered Area	Includes all spaces that have a roof and a slab but are unenclosed (without a façade). This includes circulation, Outdoor Learning Commons and covered outdoor spaces that are bounded by balustrades or perforated mesh
UFA	Useable Floor Area	Space that can be physically accessed and used, excluding circulation, engineering, outdoor space, toilets, plant, etc NOTE: EFSG Schedules of Accommodation indicate the UFA required for each space

Spaces

ALU	Additional Learning Unit
GLS	General Learning Space
LC	Learning Commons
OLC	Outdoor Learning Commons

Example Hub Layouts

Secondary School

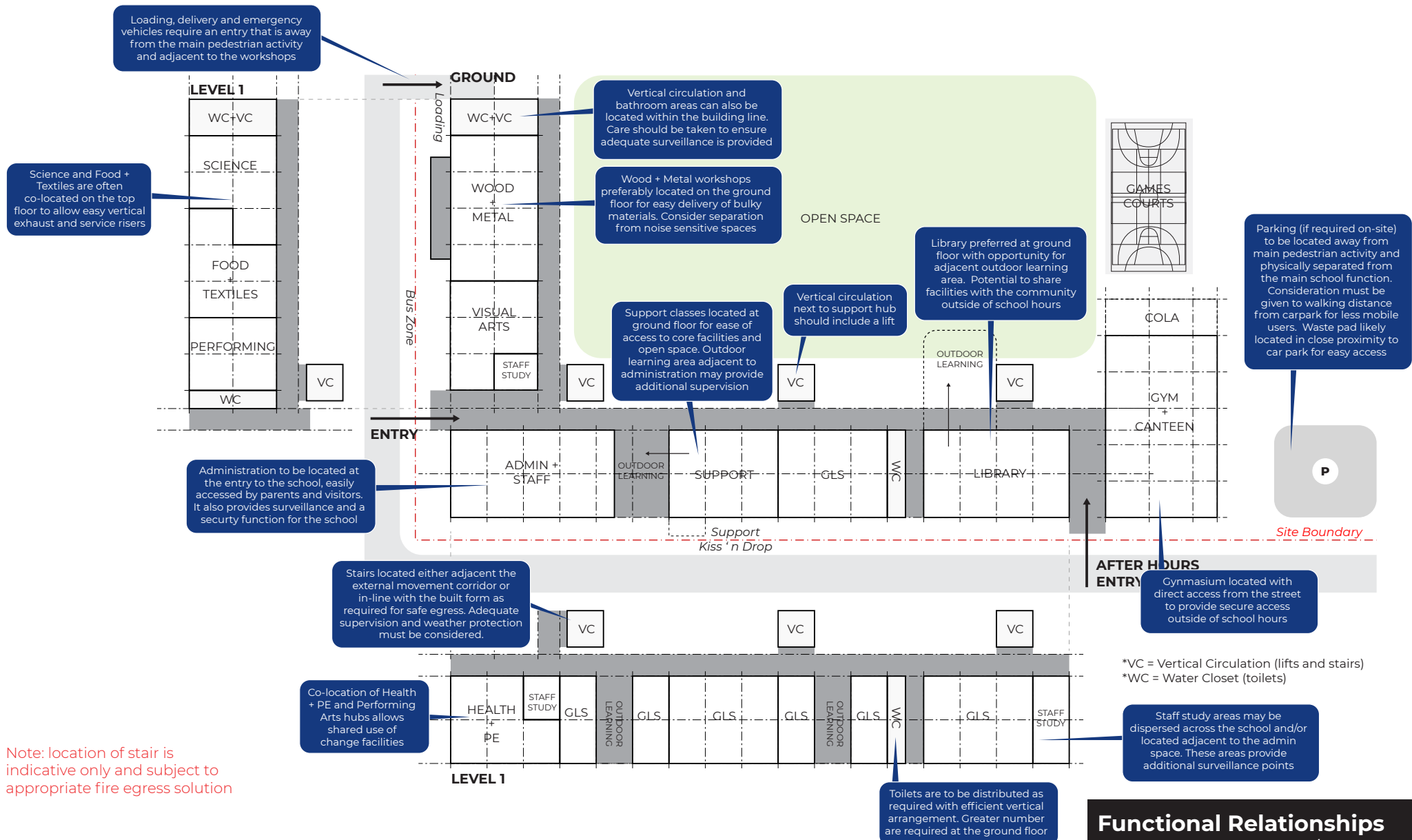
X-Small / Stream 4

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EXAMPLE LAYOUT

Example Hub Layout – School Infrastructure NSW, June 2021



Note: location of stair is indicative only and subject to appropriate fire egress solution

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EXAMPLE LAYOUT

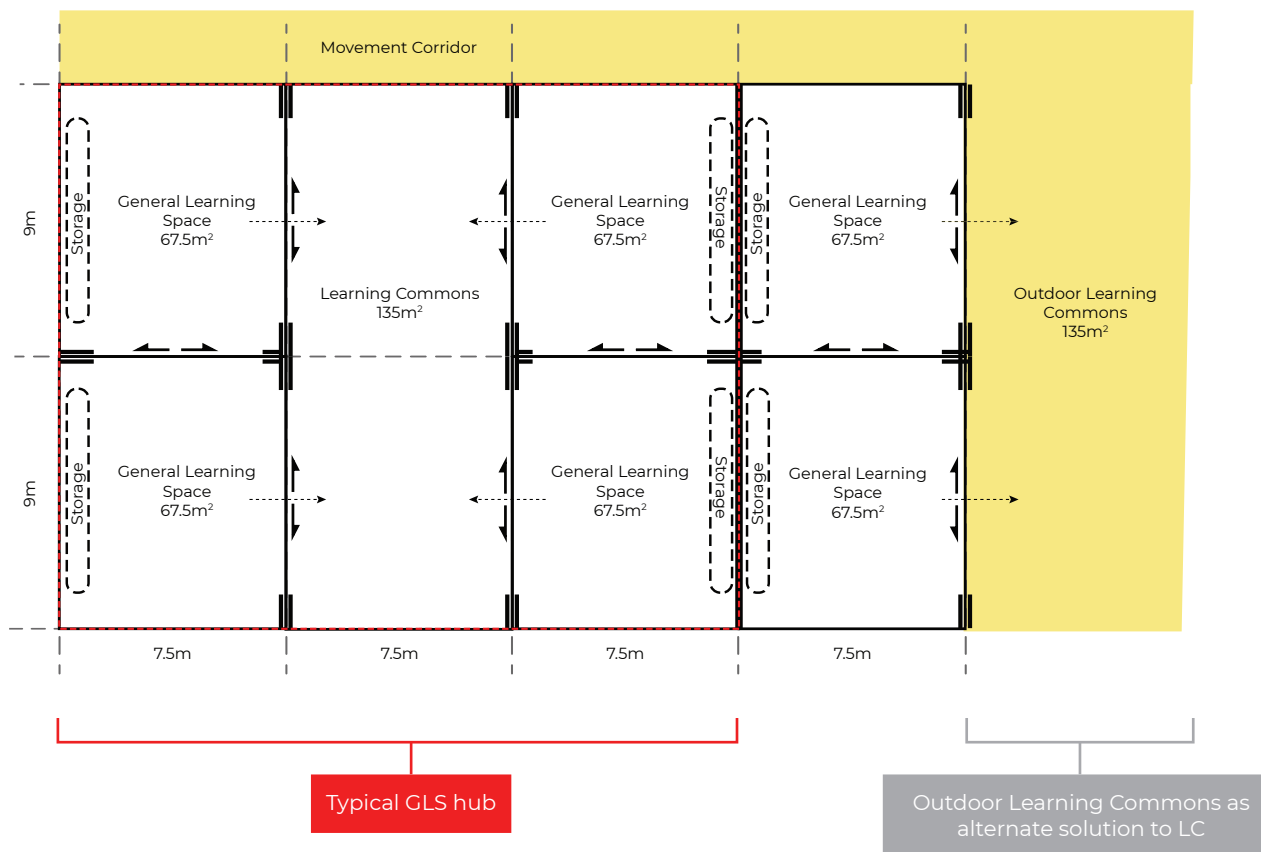


Example Hub Layout – School Infrastructure NSW, June 2021

NOT TO SCALE

Functional Relationships Secondary (X-Small/Stream 4)

Indicative secondary school layout demonstrating desirable adjacency of spaces and general master planning principles.



General Learning Space Hub

Primary + Secondary

Learning Commons

- Learning Commons to be directly accessible by 4 General Learning Spaces.
- This area can be divided into zones such as practical activities areas, break out spaces, seminar rooms and the like.
- Learning Commons can also be provided as an Outdoor Learning Commons which operates in a similar manner in an outdoor covered and weather protected environment.

General Learning Spaces

- Minimum GLS area is 60sqm clear (UFA).
- The total number of GLS provided is to be determined based on enrolment projections.
- The total GLS count should include all GLSs associated with Specialist Learning Units, senior learning and Additional Learning Units.
- Storage to be included within the GLS as cabinetry (min 6m² per GLS or equivalent 20 lineal metres of shelving).



	X-Small HS 700 students	Small HS 980 students	Medium HS 1,540 students	Large HS 2,020 students
Number of GLS required	up to 35 GLSs (total)	up to 49 GLSs (total)	up to 77 GLSs (total)	up to 101 GLSs (total)
<i>Breakdown</i>	20 GLS +15 GLS in Specialist Learning Hubs + Support Learning Hub GLSs	30 GLS +15 GLS in Specialist Learning Hubs +4 GLS* in Additional Learning Units + Support Learning Hub GLSs	45 GLS +26 GLS in Specialist Learning Hubs +6 GLS* in Additional Learning Units + Support Learning Hub GLSs	60 GLS +33 GLS in Specialist Learning Hubs +8 GLS* in Additional Learning Units + Support Learning Hub GLSs
Number of LC required	5 (including indoor LCs and OLCs)	8 (including indoor LCs and OLCs)	11 (including indoor LCs and OLCs)	15 (including indoor LCs and OLCs)

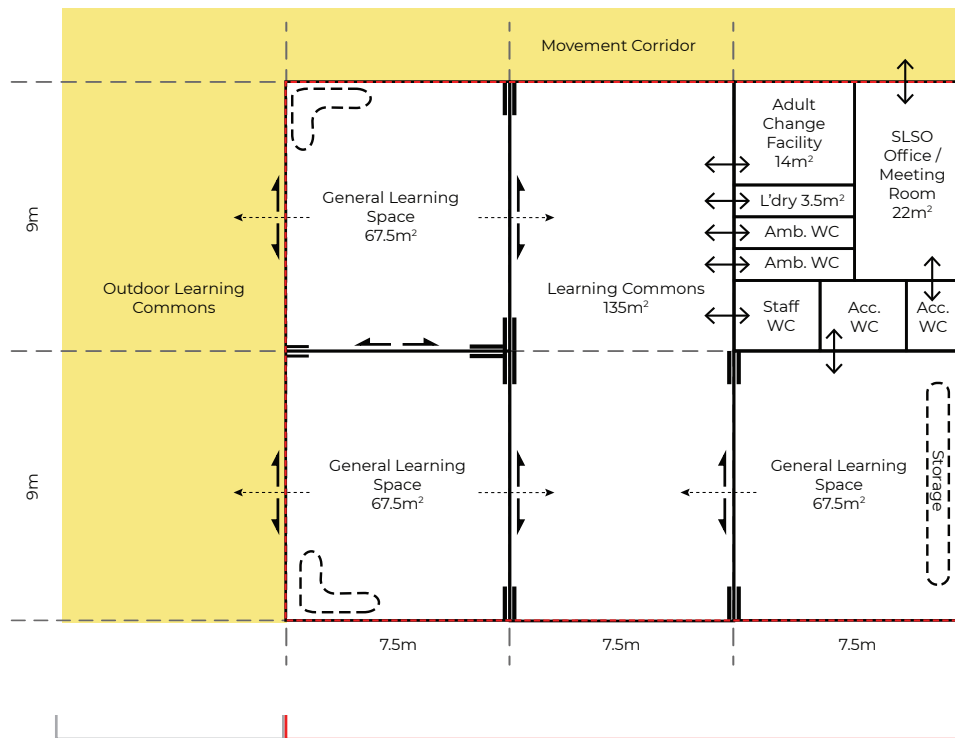
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EXAMPLE LAYOUT



Example Hub Layout – School Infrastructure NSW, June 2021

*GLS or equivalent bookable space
Refer Schedule of Accommodation for further detail



Outdoor Learning Commons adjacent may be a desirable solution

Typical GLS hub



Important note on support classes

The requirements of every support class will be different depending on the student profile and varying needs of the students who enrol at the school. For this reason, it is important that the standard design for support learning areas is a flexible as possible, and customised by way of zones (including furniture, fit out and equipment (FF&E)) to suit the needs of the students attending the school. These requirements may change year on year as new students come and go. The FF&E should be designed to allow flexibility and change with relative ease if required.

Support Learning Hub

Primary + Secondary

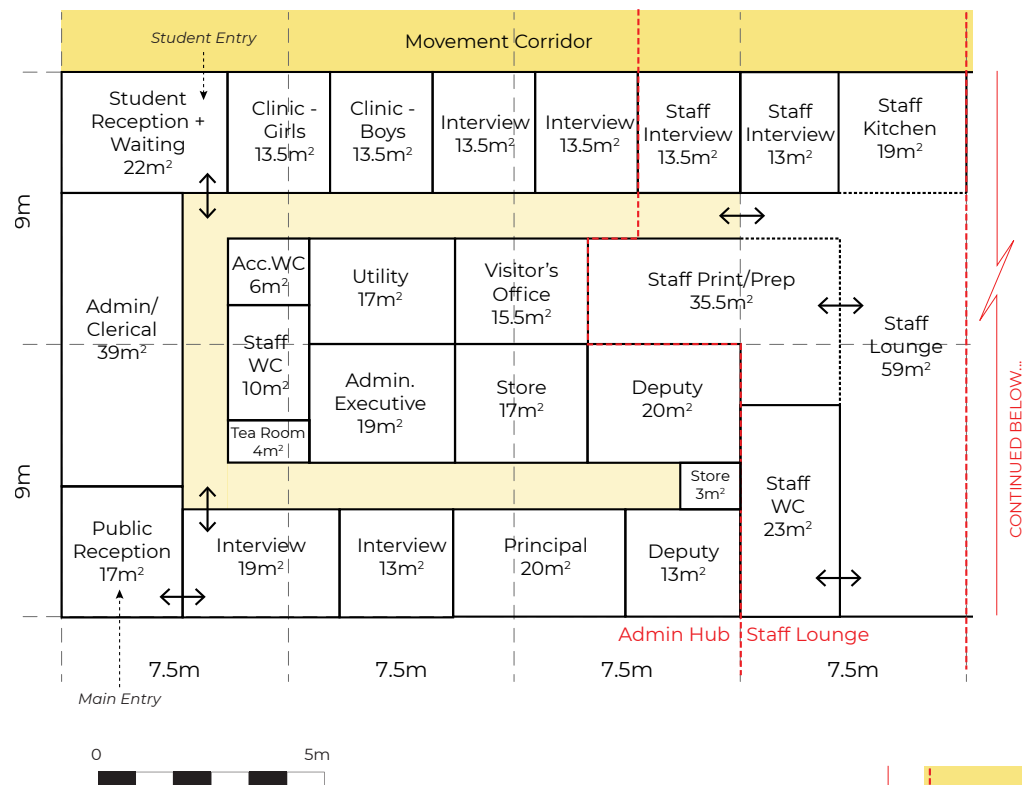
- LC area may be divided into zones for practical activities, break out spaces, sensory rooms, therapy spaces, life skills such as kitchens etc.
- OLC adjacent to the Support Learning Hub may be desirable as an alternate, quieter recreation space.
- Generous storage to be provided (as cabinetry) to allow for bulky mobility devices or medical equipment to be stored. Recommended to provide 8sqm for student personal effects and 6sqm lockable storage for teaching supplies within each GLS.
- Retreat zones may be included in the GLS to provide a safe space to move to if a situation is stressful or to self-manage emotions.
- Student amenities have direct access from the Learning Commons with line of sight from two GLS spaces. This arrangement allows students to independently use sanitary facilities whilst maintaining passive supervision from staff.
- One GLS has direct access to accessible sanitary facility - maintain line of sight from all GLSs.
- An adult change facility provides for students with high support needs and students who might require additional space. Access provided from the LC and/or external corridor.
- A unisex accessible sanitary facility, male and female ambulant facilities and laundry to be provided.
- An office for the School Learning Support Officer (SLSO) is provided for use during free periods, to undertake administrative tasks and store items, including confidential records.
- The SLSO Office also provides a private meeting space for parents.
- The SLSO Office also provides an opportunity for surveillance of the Support Unit entry / exit doors and common areas.
- Staff sanitary facilities have been within close proximity of the Support Hub.

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EXAMPLE LAYOUT

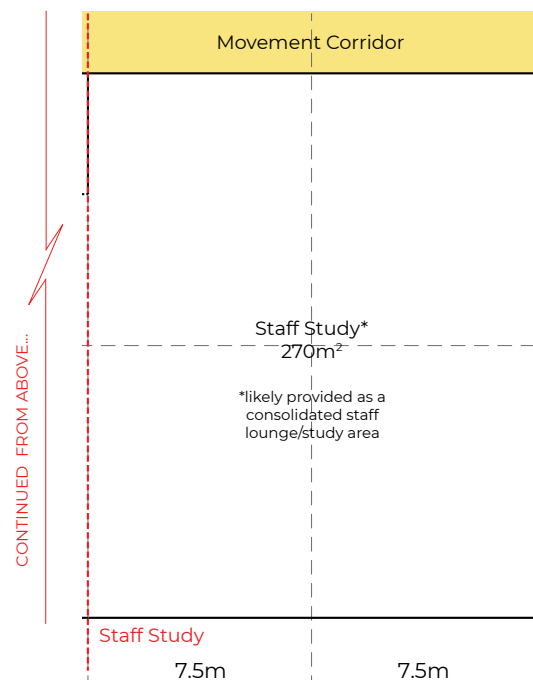
Example Hub Layout – School Infrastructure NSW, June 2021



Administration + Staff Hubs

Secondary School (X-Small/Stream 4)

- Public reception space is to be accessible by general public, with direct access from the main school entry. Provide direct access to administration/clerical area and to one interview room (minimum).
- Clearly defined security line establishes publicly accessible areas within the administration hub, and creates a secure zone for staff and students.
- Student reception and waiting area directly accessible from inside the secure line of the school.
- The clinic is required to be located adjacent to the student reception and in close proximity to student accessible toilet. The clinic (both boys and girls) requires line of sight from the administration/clerical areas (internal glazing or installation of CCTV cameras).
- Direct link and access to staff lounge from the administration hub is recommended.
- Accessible toilet within the administration block is for students' exclusive use. Staff accessible toilet is located off the staff lounge.
- Dual access to one interview room is required from public reception and from secure administration block area.
- Consolidated staff lounge and staff study area is recommended for x-small high schools.

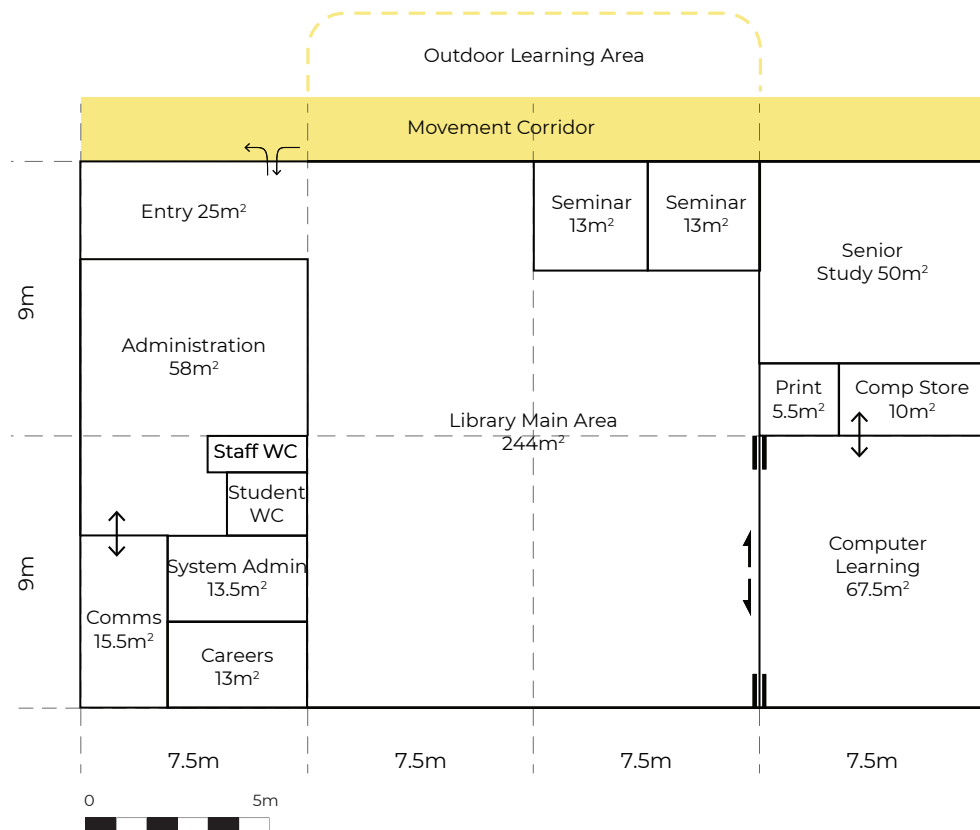


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EXAMPLE LAYOUT

Example Hub Layout – School Infrastructure NSW, June 2021



Library Hub

Secondary School (X-Small/Stream 4)

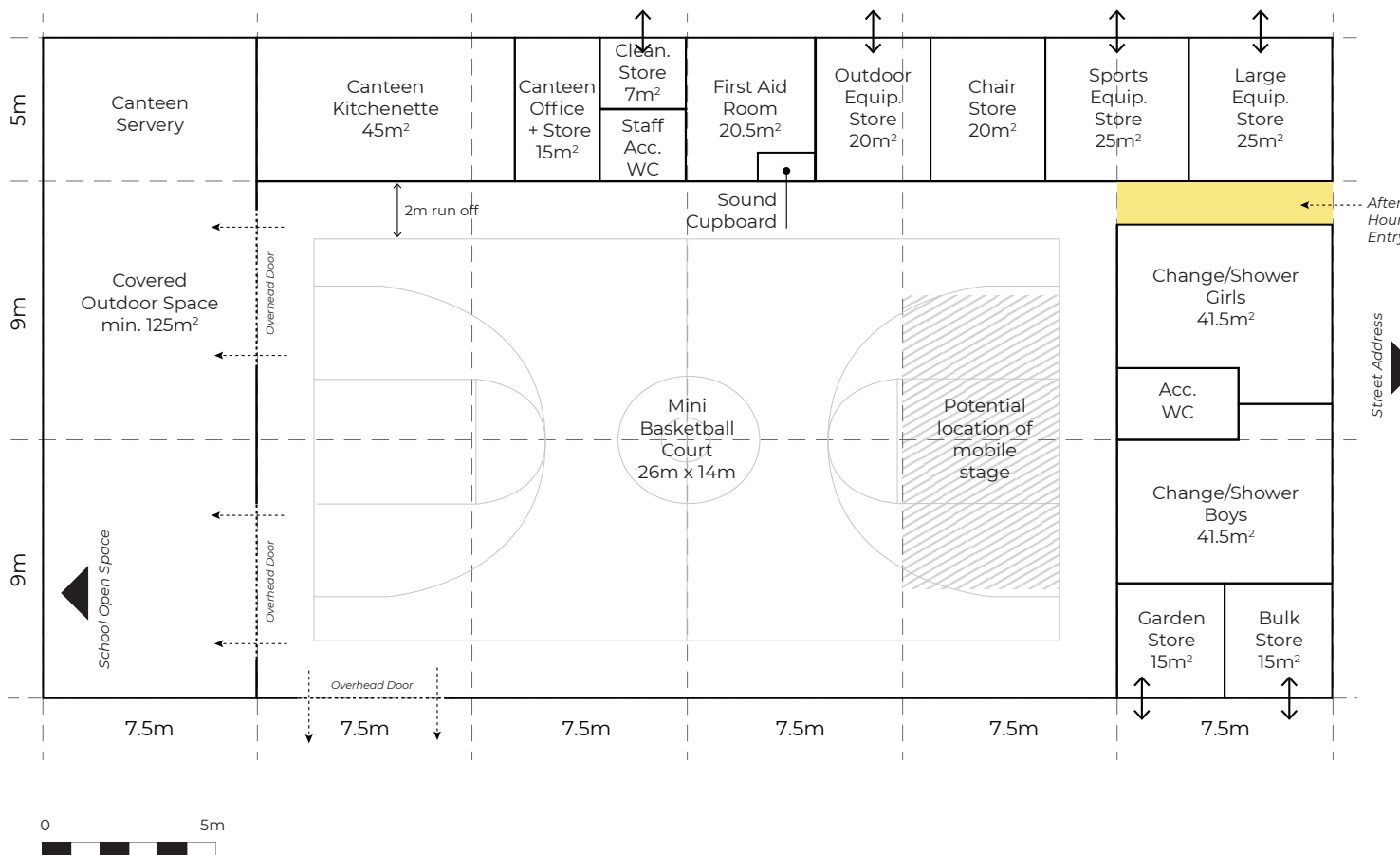
- Single entry/exit point to main library space to ensure security of students and assets (eg. books)
- Librarian loan/returns desk located near the main entry point with clear sight lines for efficient supervision of main library area, entry/exit and bag storage.
- Office area to have direct access to staff toilets.
- Bag storage to be located at the entry to the main library space, without compromising circulation.
- Opportunity to create outdoor learning space adjacent to the library.
- System admin area (with service desk for IT queries) to have direct access from the main library space.

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EXAMPLE LAYOUT

Example Hub Layout – School Infrastructure NSW, June 2021



Gymnasium + Canteen

Secondary School (X-Small/Stream 4)

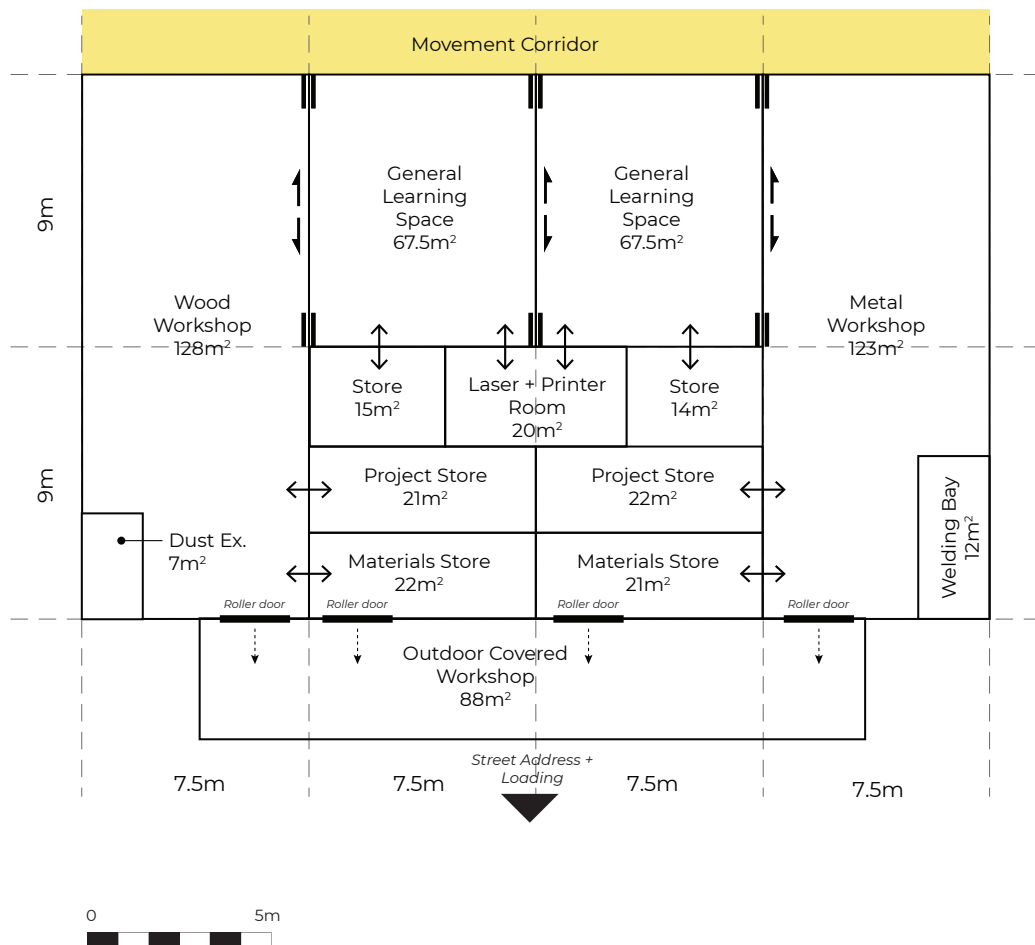
- The gymnasium and canteen facilities are consolidated within a single hub, due to their favourable intersection of uses.
- The size of the main hall area allows for functional use as a full size basketball court, at 28m x 15m plus 2m run-off on all sides.
- Covered outdoor space (also referred to as COLA) is a desirable addition to the hub, and with the addition of large sectional overhead doors, it provides:
 - the opportunity to 'spill out' during whole of school assemblies and other large events that are held in the hall;
 - weather protected outdoor play area; and
 - covered area over the canteen servery.
- The gymnasium should have secure access outside of school hours from the school's main entry and/or car park to allow for secure community use.
- The canteen kitchenette provides servery windows than open into the main hall area, as well as out into the covered outdoor space. A suitable route for deliveries to the canteen should be considered.
- Bulk, garden & cleaning stores have been integrated into the hub. These store areas require access from the perimeter of the hall and suitable access routes provided to ensure heavy and bulky items can be easily maneuvered in and out.

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EXAMPLE LAYOUT

Example Hub Layout – School Infrastructure NSW, June 2021



Metal + Wood Hub (Specialist Learning Hub) Secondary School (X-Small/Stream 4)

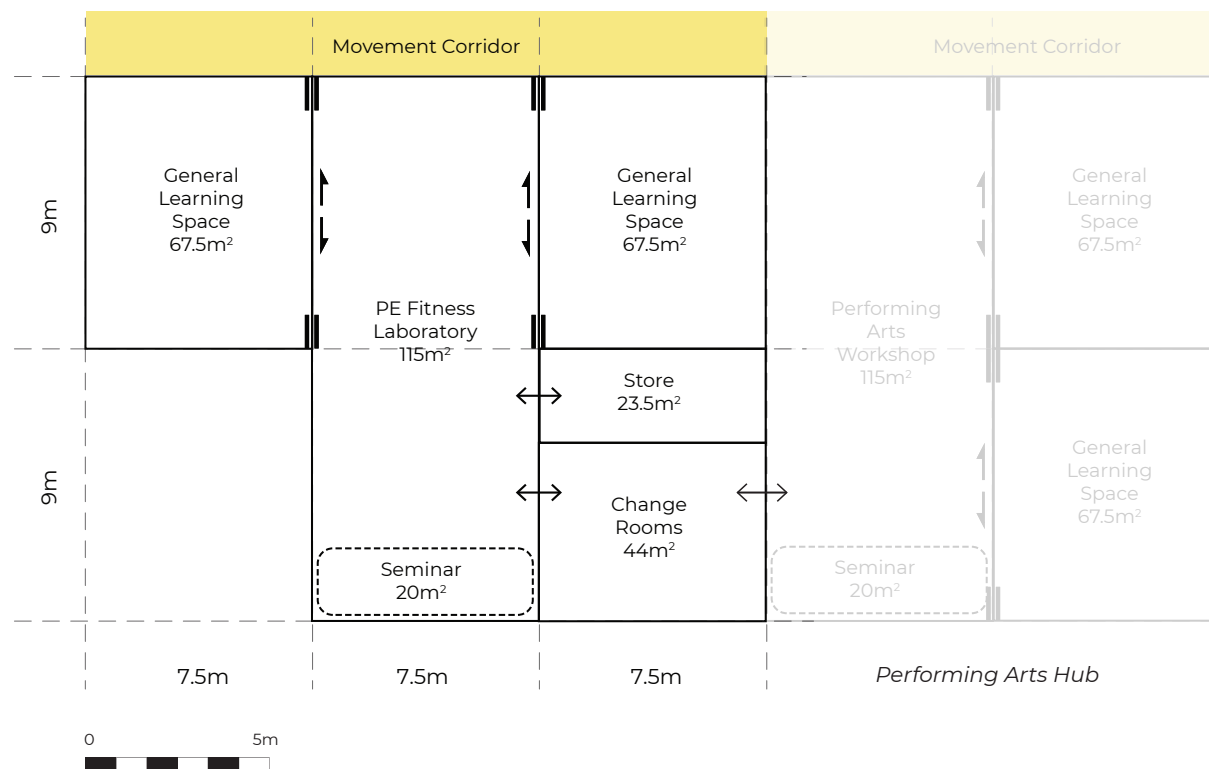
- Outdoor workshop has a direct relationship with internal workshops, material/project stores and loading dock.
- Direct access between Outdoor Covered Workshop and internal workshops via roller shutter doors is required.
- Separate material and project store rooms preferred for each workshop with external access to the outdoor covered workshop via a roller door. Roller door access allows storage of large project and bulk materials.
- Loading dock access to be designed to enable 10m rigid truck movement with entry and exit in a forward direction.
- Supervision, visibility and connectivity (direct access) between GLS and Workshops is mandatory. Internal glazing recommended.
- Direct access between GLSs is desirable.
- Distributed staff room to be located in proximity to the workshops for supervision purposes. WHS conditions of tools/equipment operation to be considered.
- Welding bay to be located inside the metal workshop for functionality and supervision purposes.
- LPG storage to be external and in proximity to metal workshop/welding bay.
- High level windows desirable to avoid distraction while using machine tools.
- Laser and 3D printer room required for digital technology subjects. This room has a direct functional relationship with GLS that includes computer equipment.
- Acoustic design input required for floors, walls, windows, outdoor workshop and dust extraction.
- Dust extraction system away from GLS areas to minimise acoustic impact, and open to outside to enable waste pick up without disruptions to class.
- Placement of large tables and machinery within workshops to ensure functionality of the space.

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EXAMPLE LAYOUT

Example Hub Layout – School Infrastructure NSW, June 2021



Note same layout applies for Secondary School (Small/Stream 6)

Health + PE Hub (Specialist Learning Hub) Secondary School (X-Small/Stream 4)

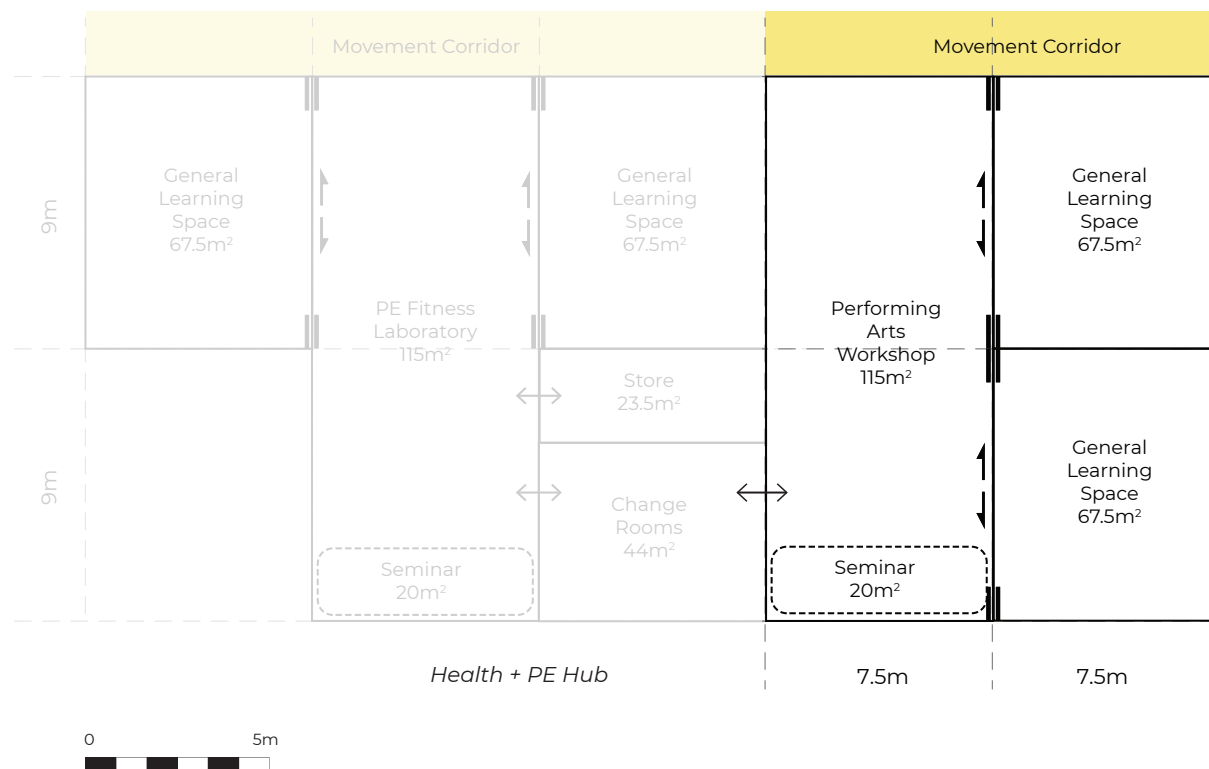
- Designed to accommodate large groups for student fitness and other Health/PE activities. Multipurpose space with specialised equipment for physical fitness and/or used as an open area for exercise and wellbeing activities.
- Internal glazing to the GLSs allows staff to supervise the fitness facilities from the GLS
- The space can be used for other purposes including student meetings, assemblies and creative and investigative learning activities.
- The workshop may be used as an after school activity space, support student physical therapy area and a staff, student (or community) recreation space.
- Display space on walls to showcase student work.
- The intended purpose of the Health and PE workshop on each project will influence the detailed fitout and requires consideration with each school at early design. If the school offers specialised uses such as gymnastics a sprung timber floor may be required, or if weight training equipment is intended to be installed floor loading and acoustics are to be considered and use of the workshop as open fitness area would be limited.
- Fitout may include a full wall mirror and exercise barre in front of the mirror. Floor finish selection must consider hygiene, cleaning and maintenance.
- Generous storage is required for bulky sporting equipment, floor mats, rollers, swiss balls and the like.
- Direct adjacency to change rooms is required for students to change to specialised clothing for health and physical education activities.
- When located adjacent the Performing Arts Hub change room facility may be shared.

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EXAMPLE LAYOUT

Example Hub Layout – School Infrastructure NSW, June 2021



Note same layout applies for Secondary School (Small & Medium / Stream 6 & 9)

Performing Arts Hub (Specialist Learning Hub) Secondary School (X-Small/Stream 4)

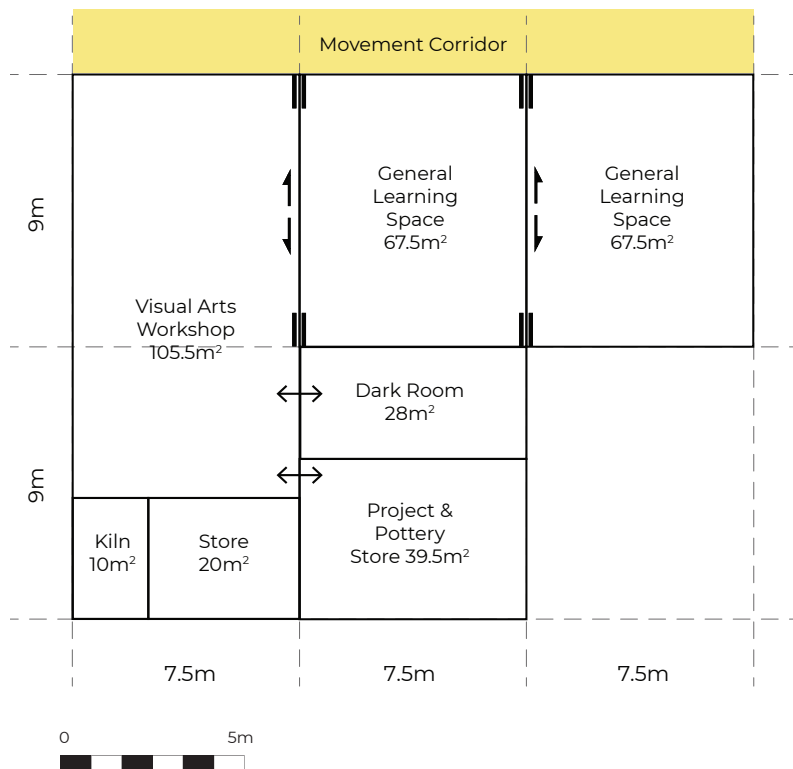
- Multipurpose facilities for health, physical education, dance, drama and music. May be used after school hours for rehearsal and/or shared with the community.
- Direct access and visual connection between the GLSs (theory) and the workshop and seminar spaces (practical) is required. Internal glazing may be appropriate to allow visual surveillance across the hub, as small groups break out to rehearse in different areas. In this learning unit – theory and practice are integrated activities and use of the GLS, workshop and seminar is continuous.
- This learning hub should be located in close proximity to change facilities, as student activities in the workshop and seminar spaces may require a change into specialised clothing.
- The workshop provides a multipurpose learning space equipped for creative and performing arts, to participate in rehearsal and perform in a range of activities including dance, drama or other related activities such as yoga.
- One mirrored wall, a ballet barre, lighting bar at high level, and capacity for performance lighting and sound control systems is required.
- Teachers report safe dance practice requires a sprung timber floor - a WHS provision.
- Storage is required for dance and performance, and more secure storage for musical instruments and technical equipment which are fragile, bulky and high capital cost items.
- When located adjacent the Health and PE Hub change room facility may be shared.

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EXAMPLE LAYOUT

Example Hub Layout – School Infrastructure NSW, June 2021



Note same layout applies for Secondary School (Small /Stream 6)

Visual Arts Hub (Specialist Learning Hub) Secondary School (X-Small/Stream 4)

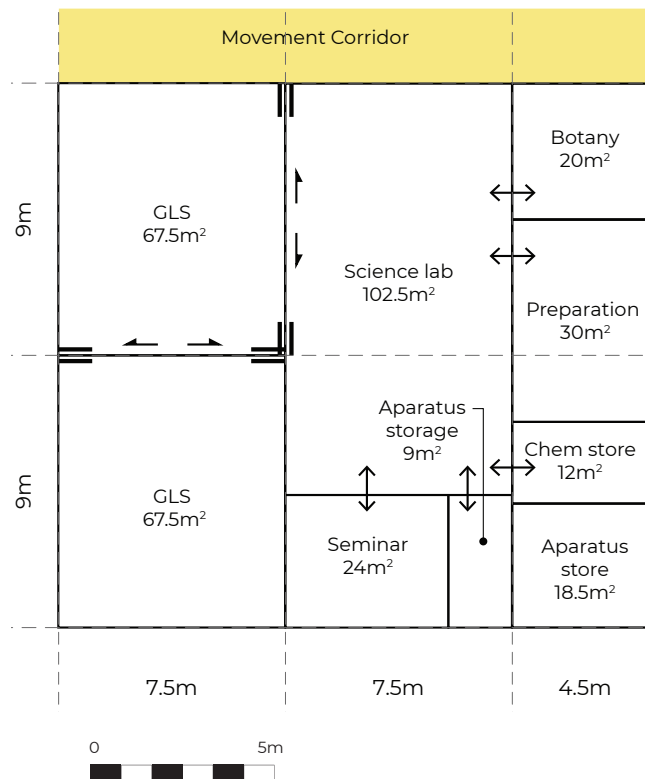
- A place of inspiration to showcase student work.
- Direct access to visual arts workshop from GLS. Connectivity to enable team teaching is desirable.
- A practical maker space directly accessible from the visual arts GLS. Provide flexible capacity for mixed media art making. The capacity to break out to make work in outdoor learning commons or covered outdoor learning area as an alternative is advantageous.
- Art troughs and benching required, and provision for drying of student work.
- Provide opportunities for display of student work.
- High quality of natural light is desirable.
- Dark room (wet) - internal room with light lock. Perimeter benching at standing height sufficient for multiple workstations of enlarger and chemical trays, wet bench with double art trough sink, hanging facility to dry prints. One accessible workstation at adjustable height.
- Digital media dark room (dry) - a secure room for hi-tech processing and printing equipment may be provided as a separate room within the dark room.
- Store to be accessible directly from the workshop with generous shelving and racking for bulk materials storage, art media and protective clothing.
- Project store directly accessible from the workshop. Capacity for drying student work required. Storage of HSC project work in a secure zone within the general project store is desirable.
- Storage for student work in all media includes racks for work to dry, shelving for materials and student work and secure storage for HS senior projects
- Kiln can be gas or electric but not wood fired. May be located with separate external access rather than internally from the workshop.

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EXAMPLE LAYOUT

Example Hub Layout – School Infrastructure NSW, June 2021



Science Hub (Specialist Learning Hub) Secondary School (X-Small/Stream 4)

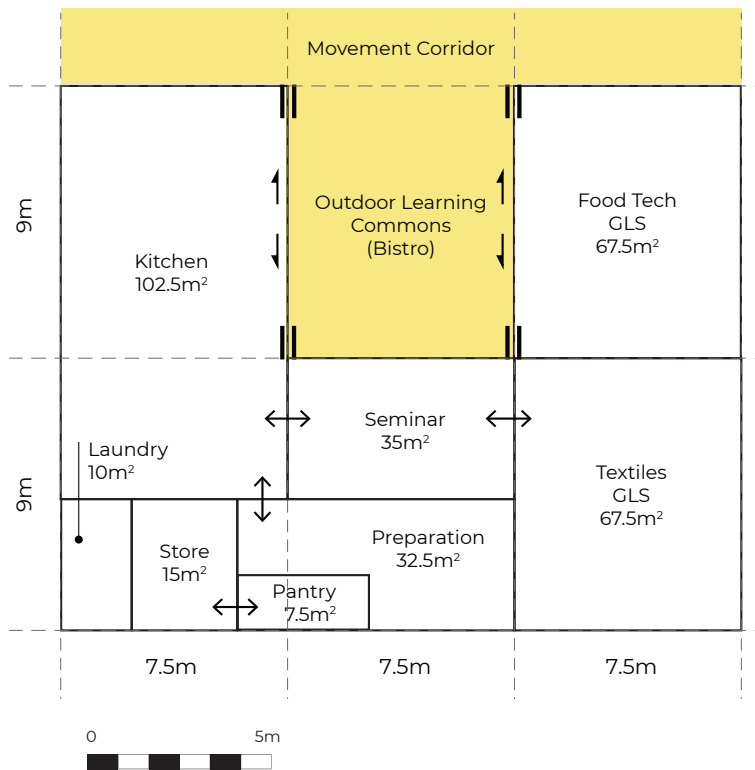
- The science GLS is intended to be used as a theory learning space, adjacent to the science laboratory.
- A science GLS with demonstration bench includes a wet area, with overhead mirror or camera and display, an extension table and sufficient student desks and chairs to enable a class group to be seated.
- The science laboratories are an integral part of the science learning hub for practical teaching and learning. The laboratories are designed to support explore, investigate, create, fabricate, and construct activities.
- Fixed workstations and services are complemented by movable extension tables enabling teachers to develop a variety of working groups. Workbenches, laboratory facilities, sinks, a fume cupboard, and a safety shower are to be provided.
- Direct access between the laboratories and the preparation space is required.
- The science seminar space is a multipurpose 'break out' area, suitable for individual use to medium sized groups.
- The botany/zoology room houses plants and/or animal specimens. Sunlight access is desirable for plant growth.
- The chemical store room is dedicated to the bulk storage of hazardous products.
- The apparatus and equipment store room requires direct access from the preparation room and is fitted out with mobile steel shelving (compactus) for the storage of apparatus and equipment used within the science learning hub. Wet and dry benching should be provided for long term experiments.

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EXAMPLE LAYOUT

Example Hub Layout – School Infrastructure NSW, June 2021



Note same layout applies for Secondary School (Small /Stream 6)

Food + Textiles Hub *(Specialist Learning Hub)* Secondary School (X-Small/Stream 4)

- Quality safe working conditions with appropriate furniture settings based on activities.
- The Food Technology and Textile Technology GLS spaces accommodate a demonstration bench within a wet area with overhead mirror or camera and display, an extension table and sufficient student desks and chairs to enable a class group to be seated.
- Sufficient workbench space and storage is required for handling of materials and textile machinery.
- The Food Technology GLS should have direct access to an adjacent Kitchen.
- The Kitchens are hands-on learning spaces with demonstration facilities and work benches. Direct access to the Materials Store, Kitchen Preparation and GLSs is required.
- A bistro/learning commons directly accessible from the food technology spaces provides for a variety of learning settings, experimentation and an appropriate area to consume food prepared in class.
- The Kitchen - Preparation Room is dedicated to the preparation of food and storage of materials to be used in the Kitchen with direct access to the Kitchen and the Pantry. A Servery area is provided.
- The Materials Store is dedicated to the storage of materials and equipment used within the Kitchen. It is essential to be in close proximity to the kitchen(s).
- The Pantry is dedicated to the dry storage of food products and should have direct access to the Preparation Room and be near the Kitchen.
- The Seminar Room is a multipurpose room with desks and chairs for individual to medium sized groups.
- The Laundry is a support space with fixtures and equipment to support the cleaning of clothes and linen. The space should be equipped with a laundry tub, washing machine and dryer.
- Ease of Sanitation and compliance with food handling requirements is required.
- High quality of natural light is desirable with control.

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EXAMPLE LAYOUT

Example Hub Layout – School Infrastructure NSW, June 2021

Example Hub Layouts

Secondary School

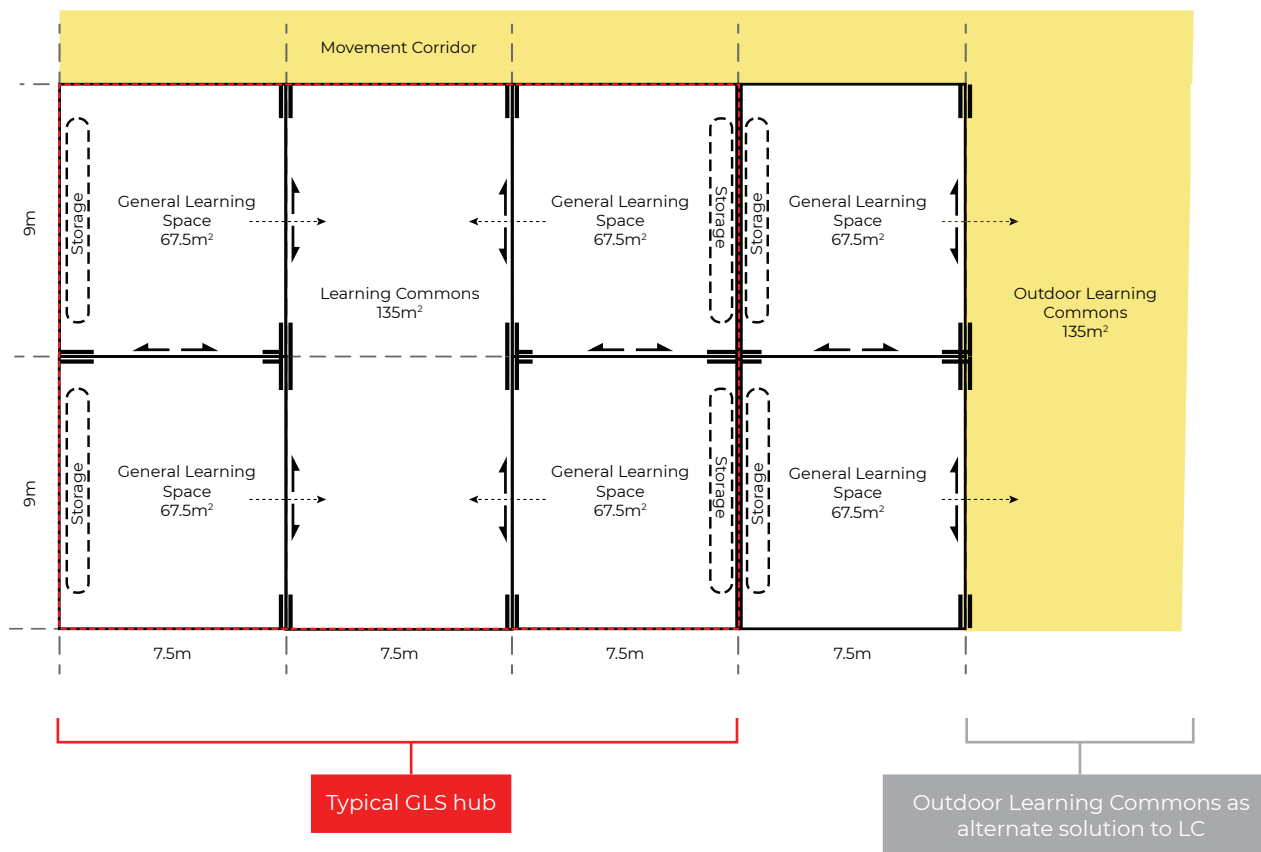
Small / Stream 6

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EXAMPLE LAYOUT

Example Hub Layout – School Infrastructure NSW, June 2021



General Learning Space Hub

Primary + Secondary

Learning Commons

- Learning Commons to be directly accessible by 4 General Learning Spaces.
- This area can be divided into zones such as practical activities areas, break out spaces, seminar rooms and the like.
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General Learning Spaces

- Minimum GLS area is 60sqm clear (UFA).
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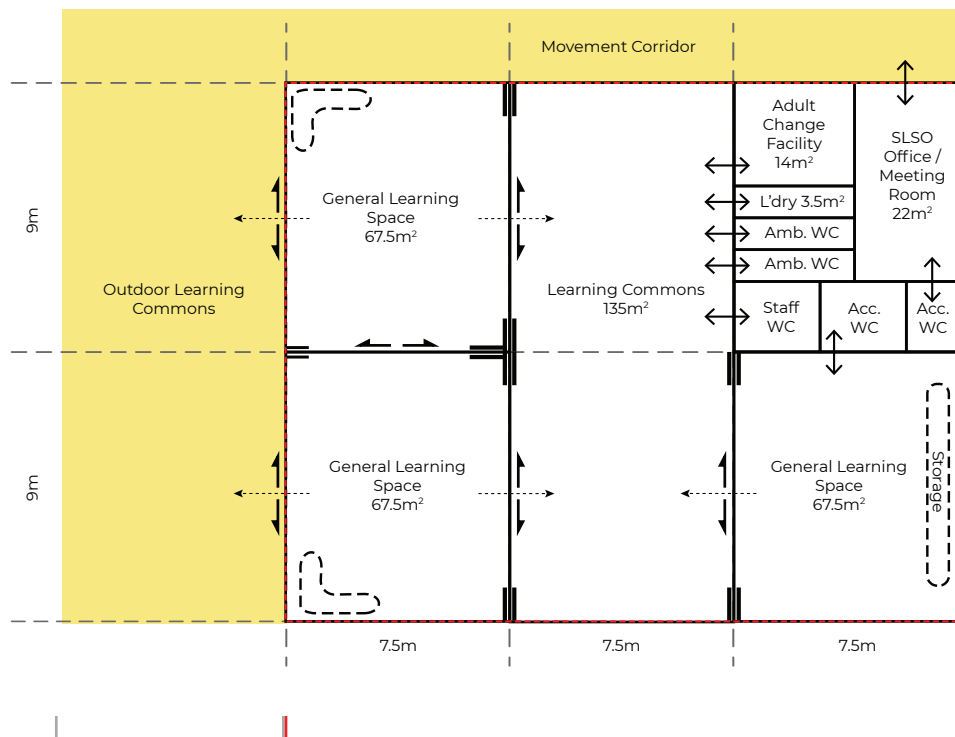
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EXAMPLE LAYOUT



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Outdoor Learning Commons adjacent may be a desirable solution

Typical GLS hub



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Support Learning Hub

Primary + Secondary

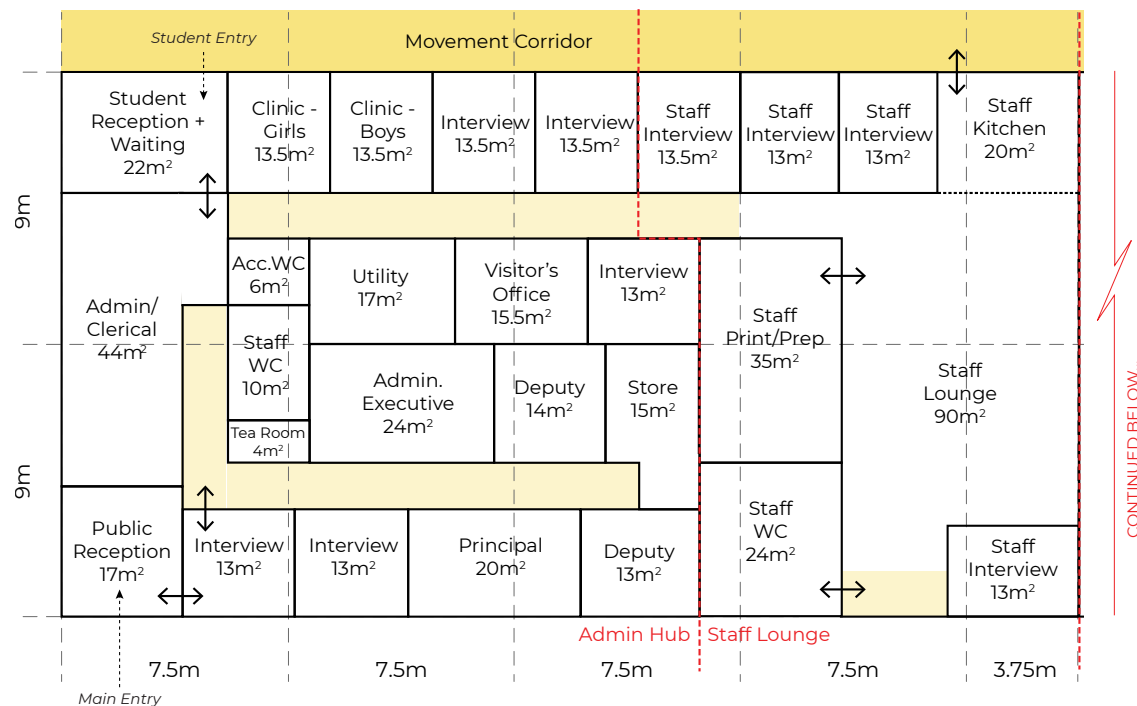
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- One GLS has direct access to accessible sanitary facility - maintain line of sight from all GLSs.
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- The SLSO Office also provides a private meeting space for parents.
- The SLSO Office also provides an opportunity for surveillance of the Support Unit entry / exit doors and common areas.
- Staff sanitary facilities have been within close proximity of the Support Hub.

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EXAMPLE LAYOUT

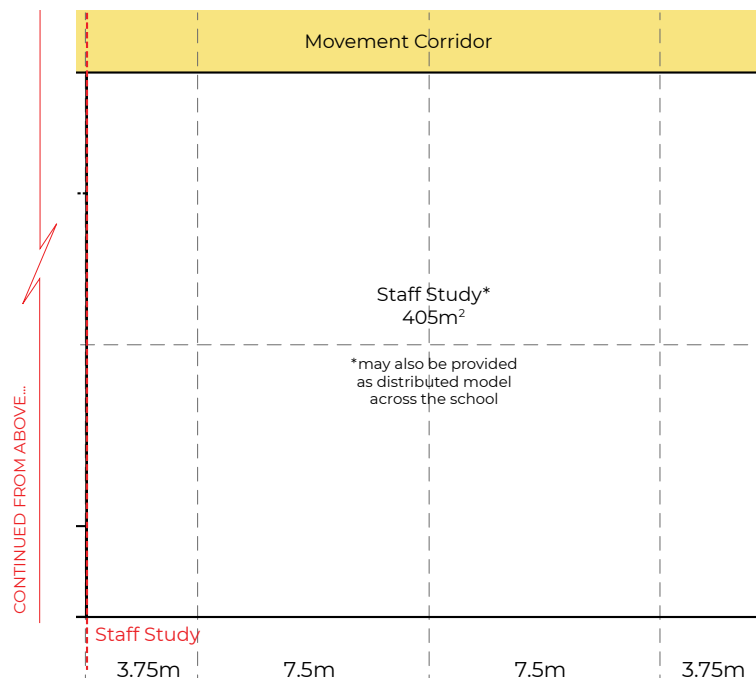
Example Hub Layout – School Infrastructure NSW, June 2021



Administration + Staff Hubs

Secondary School (Small/Stream 6)

- Public reception space is to be accessible by general public, with direct access from the main school entry. Provide direct access to administration/clerical area and to one interview room (minimum).
- Clearly defined security line establishes publicly accessible areas within the administration hub, and creates a secure zone for staff and students.
- Student reception and waiting area directly accessible from inside the secure line of the school.
- The clinic is required to be located adjacent to the student reception and in close proximity to student accessible toilet. The clinic (both boys and girls) requires line of sight from the administration/clerical areas (internal glazing or installation of CCTV cameras)
- Direct link and access to staff lounge from the administration hub is recommended.
- Accessible toilet within the administration block is for students' exclusive use. Staff accessible toilet is located off the staff lounge.
- Dual access to one interview room is required from public reception and from secure administration block area.
- Staff study space may be provided as a distributed model with smaller staff areas spread across the school.

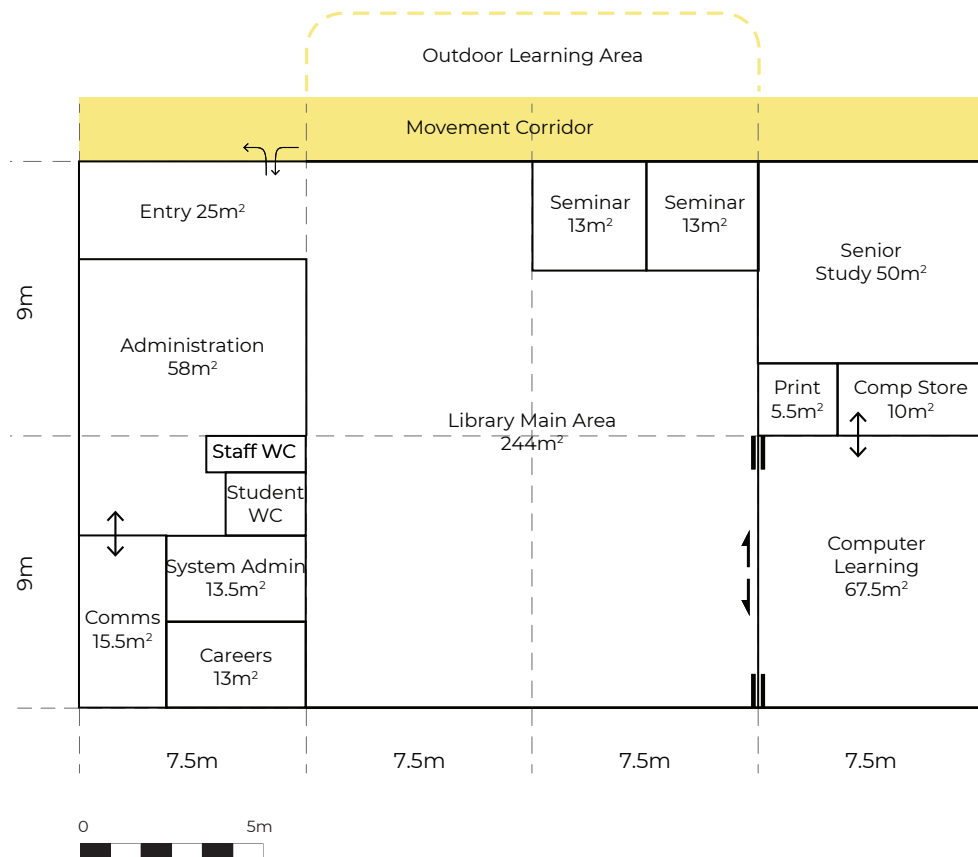


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EXAMPLE LAYOUT

Example Hub Layout – School Infrastructure NSW, June 2021



Library Hub

Secondary School (Small/Stream 6)

- Single entry/exit point to main library space to ensure security of students and assets (eg. books)
- Librarian loan/returns desk located near the main entry point with clear sight lines for efficient supervision of main library area, entry/exit and bag storage.
- Office area to have direct access to staff toilets.
- Bag storage to be located at the entry to the main library space, without compromising circulation.
- Opportunity to create outdoor learning area adjacent to the library.
- System admin area (with service desk for IT queries) to have direct access from the main library space.

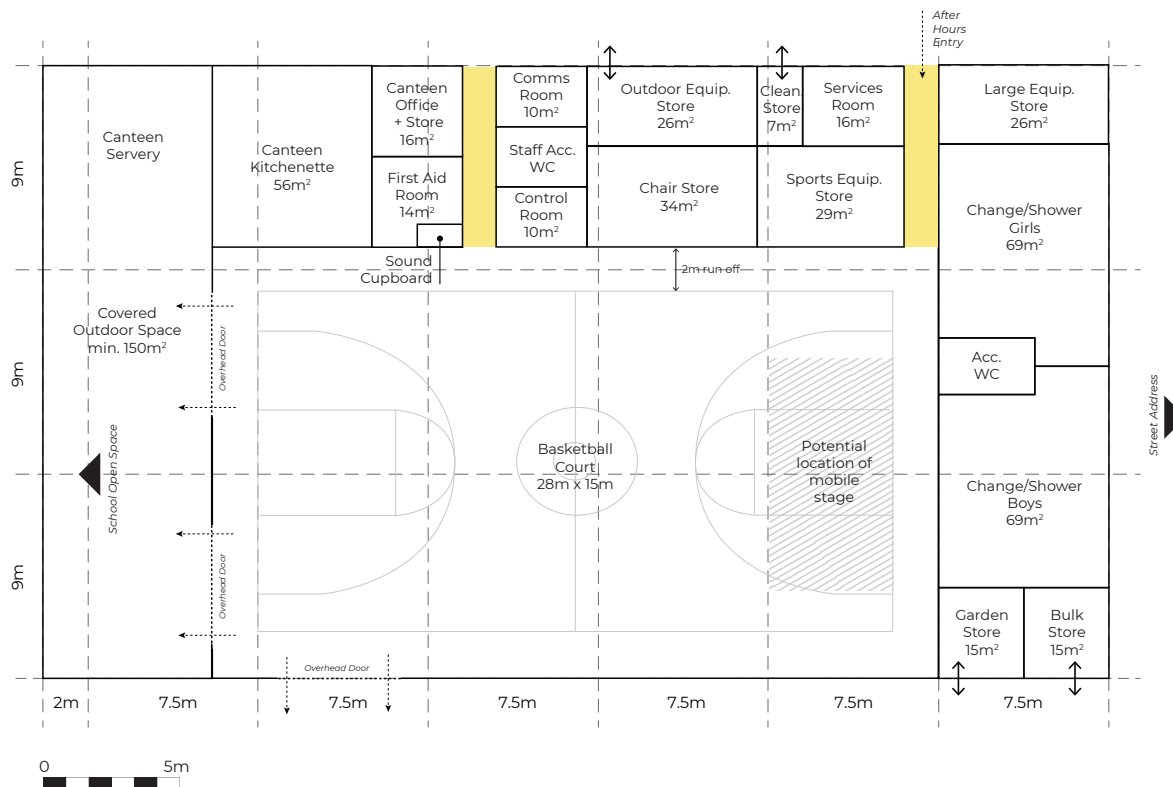
Note same layout applies for Secondary School (Medium/Stream 9)

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EXAMPLE LAYOUT

Example Hub Layout – School Infrastructure NSW, June 2021



Gymnasium + Canteen

Secondary School (Small/Stream 6)

- The gymnasium and canteen facilities are consolidated within a single hub, due to their favourable intersection of uses.
- The size of the main hall area allows for functional use as a full size basketball court, at 28m x 15m plus 2m run-off on all sides.
- Covered outdoor space (also referred to as COLA) is a desirable addition to the hub, and with the addition of large sectional overhead doors, it provides:
 - the opportunity to 'spill out' during whole of school assemblies and other large events that are held in the hall;
 - weather protected outdoor play area; and
 - covered area over the canteen servery.
- The gymnasium should have secure access outside of school hours from the school's main entry and/or car park to allow for secure community use.
- The canteen kitchenette provides servery windows than open into the main hall area, as well as out into the covered outdoor space. A suitable route for deliveries to the canteen should be considered.
- Bulk, garden & cleaning stores have been integrated into the hub. These store areas require access from the perimeter of the hall and suitable access routes provided to ensure heavy and bulky items can be easily maneuvered in and out.

Important note on gymnasiums

Whilst the primary purpose of the gymnasium in a high school is to provide an indoor sports facility, the gymnasium is often also used for whole of school events such as assemblies, performances and HSC exams. This is an important consideration for the design and location of the gymnasium.

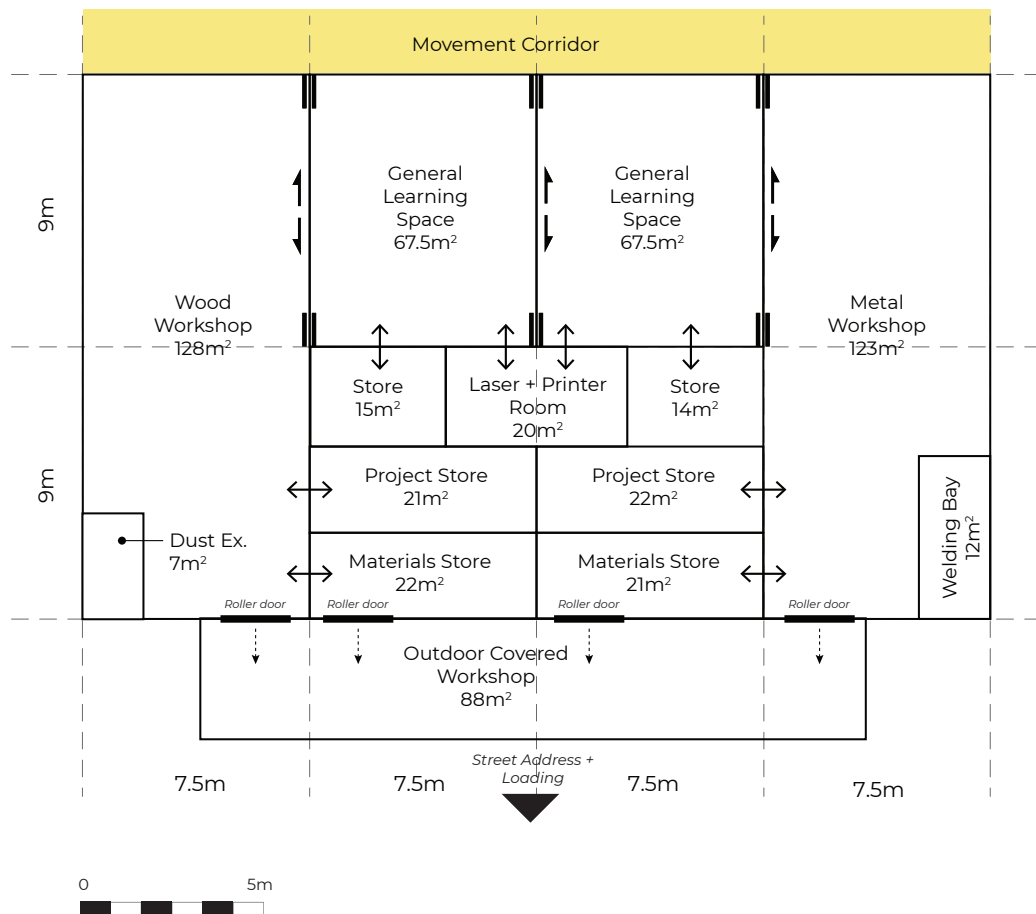
The gymnasium is also often utilised by the wider community outside of school hours for sports and other events. It is important that secure access is provided to ensure the safety of users and the asset after hours.

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EXAMPLE LAYOUT

Example Hub Layout – School Infrastructure NSW, June 2021



Metal + Wood Hub (Specialist Learning Hub) Secondary School (Small/Stream 6)

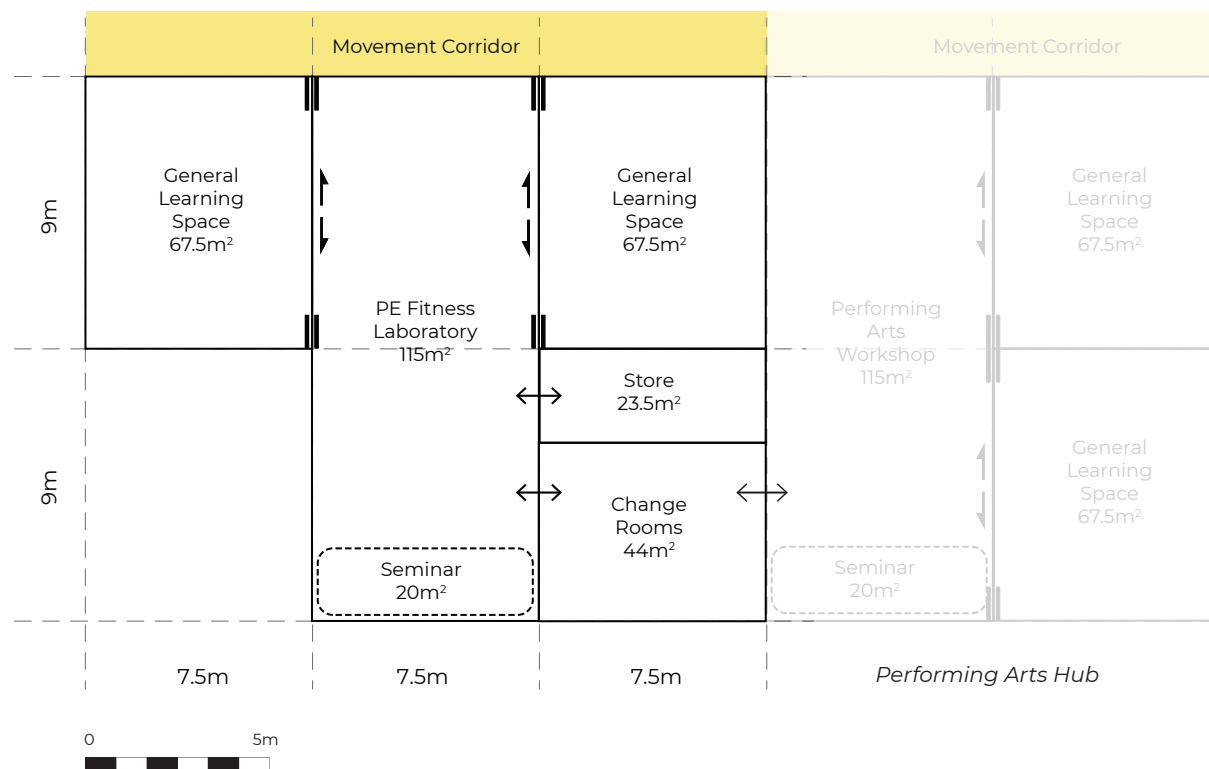
- Outdoor workshop has a direct relationship with internal workshops, material/project stores and loading dock.
- Direct access between Outdoor Covered Workshop and internal workshops via roller shutter doors is required.
- Separate material and project store rooms preferred for each workshop with external access to the outdoor covered workshop via a roller door. Roller door access allows storage of large project and bulk materials.
- Loading dock access to be designed to enable 10m rigid truck movement with entry and exit in a forward direction.
- Supervision, visibility and connectivity (direct access) between GLS and Workshops is mandatory. Internal glazing recommended.
- Direct access between GLSs is desirable.
- Distributed staff room to be located in proximity to the workshops for supervision purposes. WHS conditions of tools/equipment operation to be considered.
- Welding bay to be located inside the metal workshop for functionality and supervision purposes.
- LPG storage to be external and in proximity to metal workshop/welding bay.
- High level windows desirable to avoid distraction while using machine tools.
- Laser and 3D printer room required for digital technology subjects. This room has a direct functional relationship with GLS that includes computer equipment.
- Acoustic design input required for floors, walls, windows, outdoor workshop and dust extraction.
- Dust extraction system away from GLS areas to minimise acoustic impact, and open to outside to enable waste pick up without disruptions to class.
- Placement of large tables and machinery within workshops to ensure functionality of the space.

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EXAMPLE LAYOUT

Example Hub Layout – School Infrastructure NSW, June 2021



Health + PE Hub (Specialist Learning Hub) Secondary School (Small/Stream 6)

- Designed to accommodate large groups for student fitness and other Health/PE activities. Multipurpose space with specialised equipment for physical fitness and/or used as an open area for exercise and wellbeing activities.
- Internal glazing to the GLSs allows staff to supervise the fitness facilities from the GLS
- The space can be used for other purposes including student meetings, assemblies and creative and investigative learning activities.
- The workshop may be used as an after school activity space, support student physical therapy area and a staff, student (or community) recreation space.
- Display space on walls to showcase student work.
- The intended purpose of the Health and PE workshop on each project will influence the detailed fitout and requires consideration with each school at early design. If the school offers specialised uses such as gymnastics a sprung timber floor may be required, or if weight training equipment is intended to be installed floor loading and acoustics are to be considered and use of the workshop as open fitness area would be limited.
- Fitout may include a full wall mirror and exercise barre in front of the mirror. Floor finish selection must consider hygiene, cleaning and maintenance.
- Generous storage is required for bulky sporting equipment, floor mats, rollers, swiss balls and the like.
- Direct adjacency to change rooms is required for students to change to specialised clothing for health and physical education activities.
- When located adjacent the Performing Arts Hub change room facility may be shared.

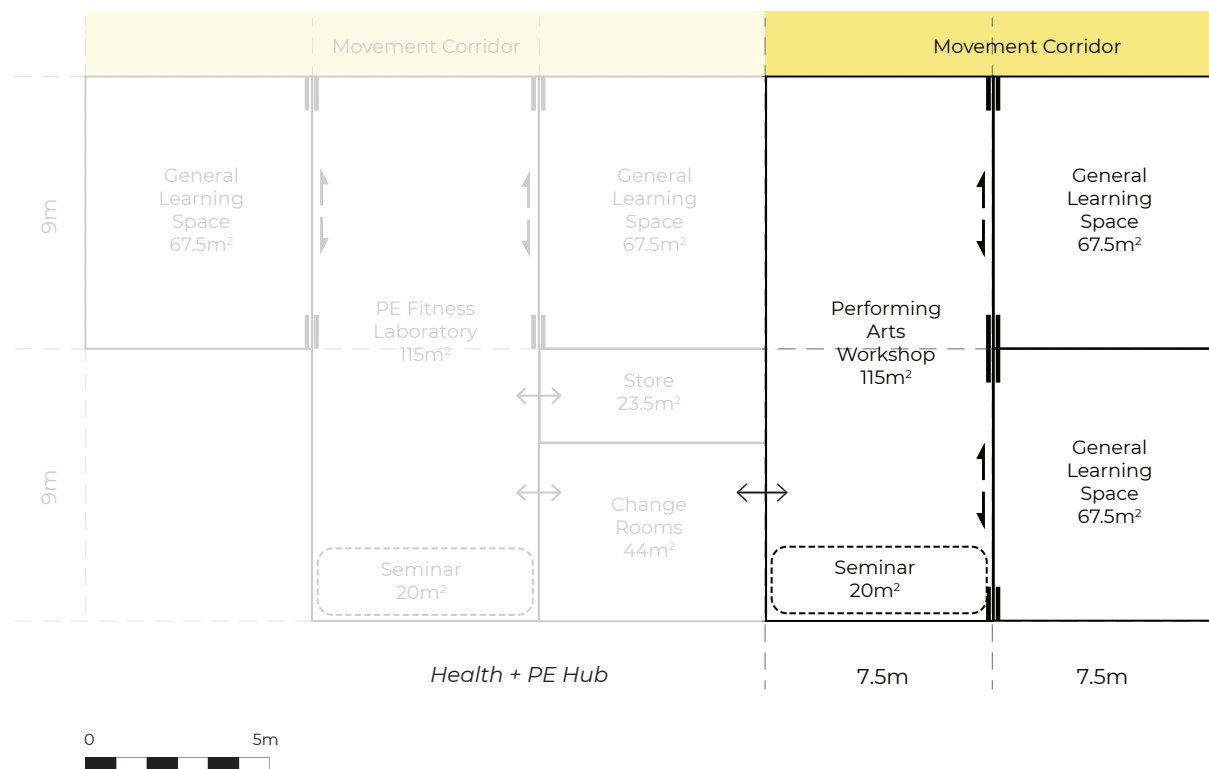
Note same layout applies for Secondary School (X-Small/Stream 4)

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EXAMPLE LAYOUT

Example Hub Layout – School Infrastructure NSW, June 2021



Note same layout applies for Secondary School (X-Small & Medium / Stream 4 & 9)

Performing Arts Hub (Specialist Learning Hub) Secondary School (Small/Stream 6)

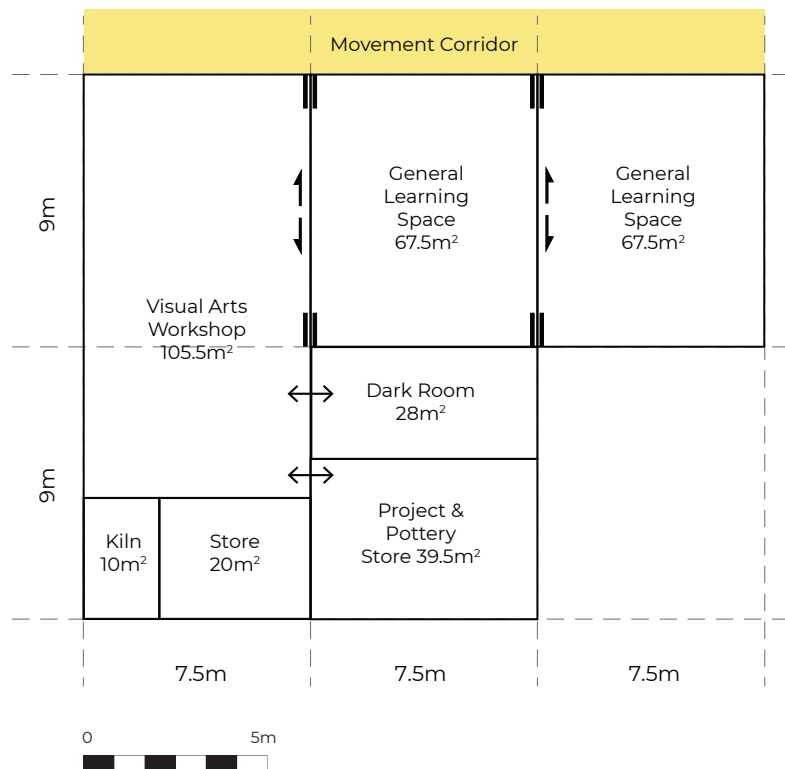
- Multipurpose facilities for health, physical education, dance, drama and music. May be used after school hours for rehearsal and/or shared with the community.
- Direct access and visual connection between the GLSs (theory) and the workshop and seminar spaces (practical) is required. Internal glazing may be appropriate to allow visual surveillance across the hub, as small groups break out to rehearse in different areas. In this learning unit – theory and practice are integrated activities and use of the GLS, workshop and seminar is continuous.
- This learning hub should be located in close proximity to change facilities, as student activities in the workshop and seminar spaces may require a change into specialised clothing.
- The workshop provides a multipurpose learning space equipped for creative and performing arts, to participate in rehearsal and perform in a range of activities including dance, drama or other related activities such as yoga.
- One mirrored wall, a ballet barre, lighting bar at high level, and capacity for performance lighting and sound control systems is required.
- Teachers report safe dance practice requires a sprung timber floor - a WHS provision.
- Storage is required for dance and performance, and more secure storage for musical instruments and technical equipment which are fragile, bulky and high capital cost items.
- When located adjacent the Health and PE Hub change room facility may be shared.

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EXAMPLE LAYOUT

Example Hub Layout – School Infrastructure NSW, June 2021



Note same layout applies for Secondary School (X-Small /Stream 4)

Visual Arts Hub (Specialist Learning Hub) Secondary School (Small/Stream 6)

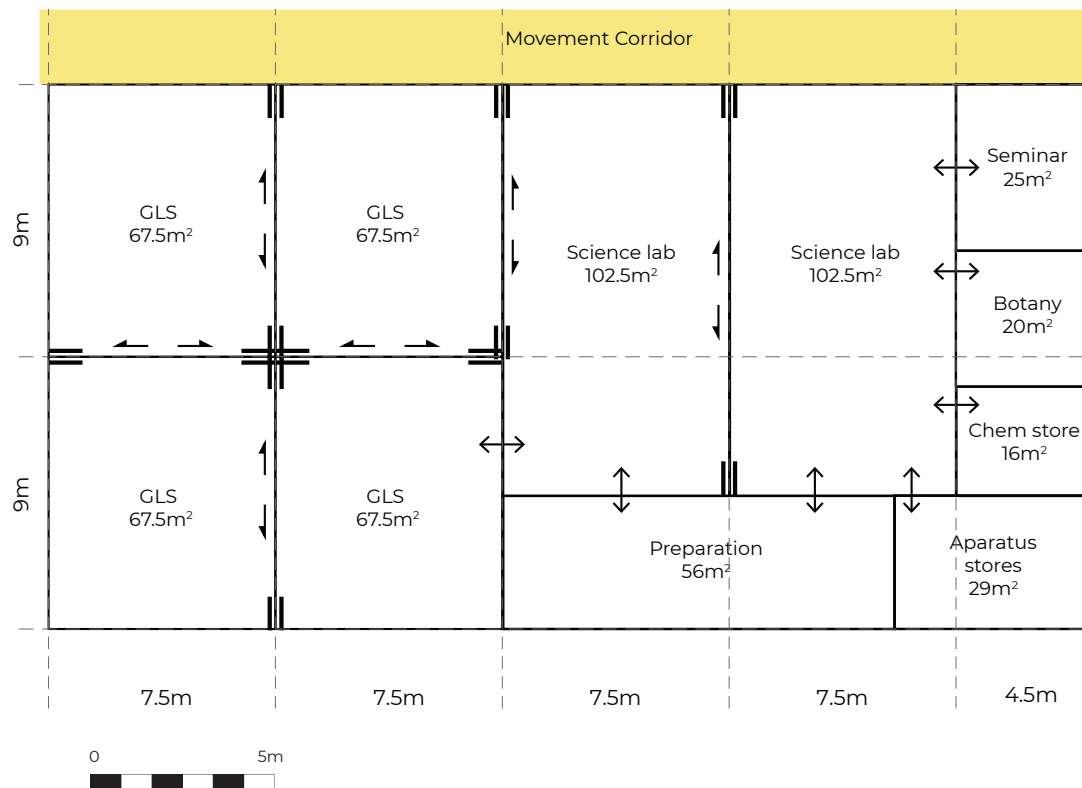
- A place of inspiration to showcase student work.
- Direct access to visual arts workshop from GLS. Connectivity to enable team teaching is desirable.
- A practical maker space directly accessible from the visual arts GLS. Provide flexible capacity for mixed media art making. The capacity to break out to make work in outdoor learning commons or covered outdoor learning area as an alternative is advantageous.
- Art troughs and benching required, and provision for drying of student work.
- Provide opportunities for display of student work.
- High quality of natural light is desirable.
- Dark room (wet) - internal room with light lock. Perimeter benching at standing height sufficient for multiple workstations of enlarger and chemical trays, wet bench with double art trough sink, hanging facility to dry prints. One accessible workstation at adjustable height.
- Digital media dark room (dry) - a secure room for hi-tech processing and printing equipment may be provided as a separate room within the dark room.
- Store to be accessible directly from the workshop with generous shelving and racking for bulk materials storage, art media and protective clothing.
- Project store directly accessible from the workshop. Capacity for drying student work required. Storage of HSC project work in a secure zone within the general project store is desirable.
- Storage for student work in all media includes racks for work to dry, shelving for materials and student work and secure storage for HS senior projects
- Kiln can be gas or electric but not wood fired. May be located with separate external access rather than internally from the workshop.

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EXAMPLE LAYOUT

Example Hub Layout – School Infrastructure NSW, June 2021



Science Hub (Specialist Learning Hub) Secondary School (Small/Stream 6)

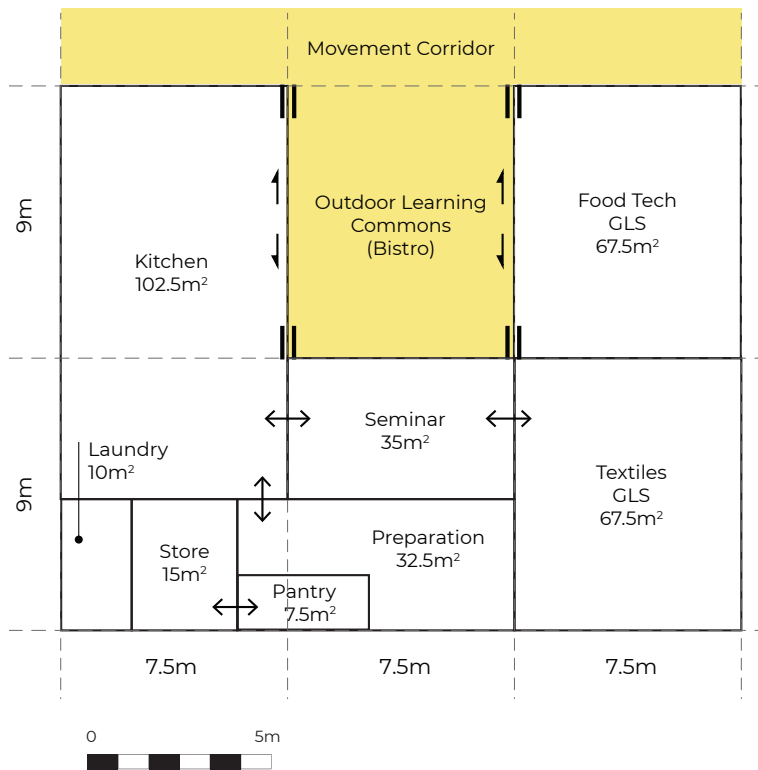
- The science GLS is intended to be used as a theory learning space, adjacent to the science laboratory.
- A science GLS with demonstration bench includes a wet area, with overhead mirror or camera and display, an extension table and sufficient student desks and chairs to enable a class group to be seated.
- The science laboratories are an integral part of the science learning hub for practical teaching and learning. The laboratories are designed to support explore, investigate, create, fabricate, and construct activities.
- Fixed workstations and services are complemented by movable extension tables enabling teachers to develop a variety of working groups. Workbenches, laboratory facilities, sinks, a fume cupboard, and a safety shower are to be provided.
- Direct access between the laboratories and the preparation space is required.
- The science seminar space is a multipurpose 'break out' area, suitable for individual use to medium sized groups.
- The botany/zoology room houses plants and/or animal specimens. Sunlight access is desirable for plant growth.
- The chemical store room is dedicated to the bulk storage of hazardous products.
- The apparatus and equipment store room requires direct access from the preparation room and is fitted out with mobile steel shelving (compactus) for the storage of apparatus and equipment used within the science learning hub. Wet and dry benching should be provided for long term experiments.

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EXAMPLE LAYOUT

Example Hub Layout – School Infrastructure NSW, June 2021



Note same layout applies for Secondary School (x-Small /Stream 4)

Food + Textiles Hub (Specialist Learning Hub) Secondary School (Small/Stream 6)

- Quality safe working conditions with appropriate furniture settings based on activities.
- The Food Technology and Textile Technology GLS spaces accommodate a demonstration bench within a wet area with overhead mirror or camera and display, an extension table and sufficient student desks and chairs to enable a class group to be seated.
- Sufficient workbench space and storage is required for handling of materials and textile machinery.
- The Food Technology GLS should have direct access to an adjacent Kitchen.
- The Kitchens are hands-on learning spaces with demonstration facilities and work benches. Direct access to the Materials Store, Kitchen Preparation and GLSs is required.
- A bistro/learning commons directly accessible from the food technology spaces provides for a variety of learning settings, experimentation and an appropriate area to consume food prepared in class.
- The Kitchen - Preparation Room is dedicated to the preparation of food and storage of materials to be used in the Kitchen with direct access to the Kitchen and the Pantry. A Servery area is provided.
- The Materials Store is dedicated to the storage of materials and equipment used within the Kitchen. It is essential to be in close proximity to the kitchen(s).
- The Pantry is dedicated to the dry storage of food products and should have direct access to the Preparation Room and be near the Kitchen.
- The Seminar Room is a multipurpose room with desks and chairs for individual to medium sized groups.
- The Laundry is a support space with fixtures and equipment to support the cleaning of clothes and linen. The space should be equipped with a laundry tub, washing machine and dryer.
- Ease of Sanitation and compliance with food handling requirements is required.
- High quality of natural light is desirable with control.

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EXAMPLE LAYOUT

Example Hub Layout – School Infrastructure NSW, June 2021

Example Hub Layouts

Secondary School

Medium / Stream 9

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EXAMPLE LAYOUT

Example Hub Layout – School Infrastructure NSW, June 2021

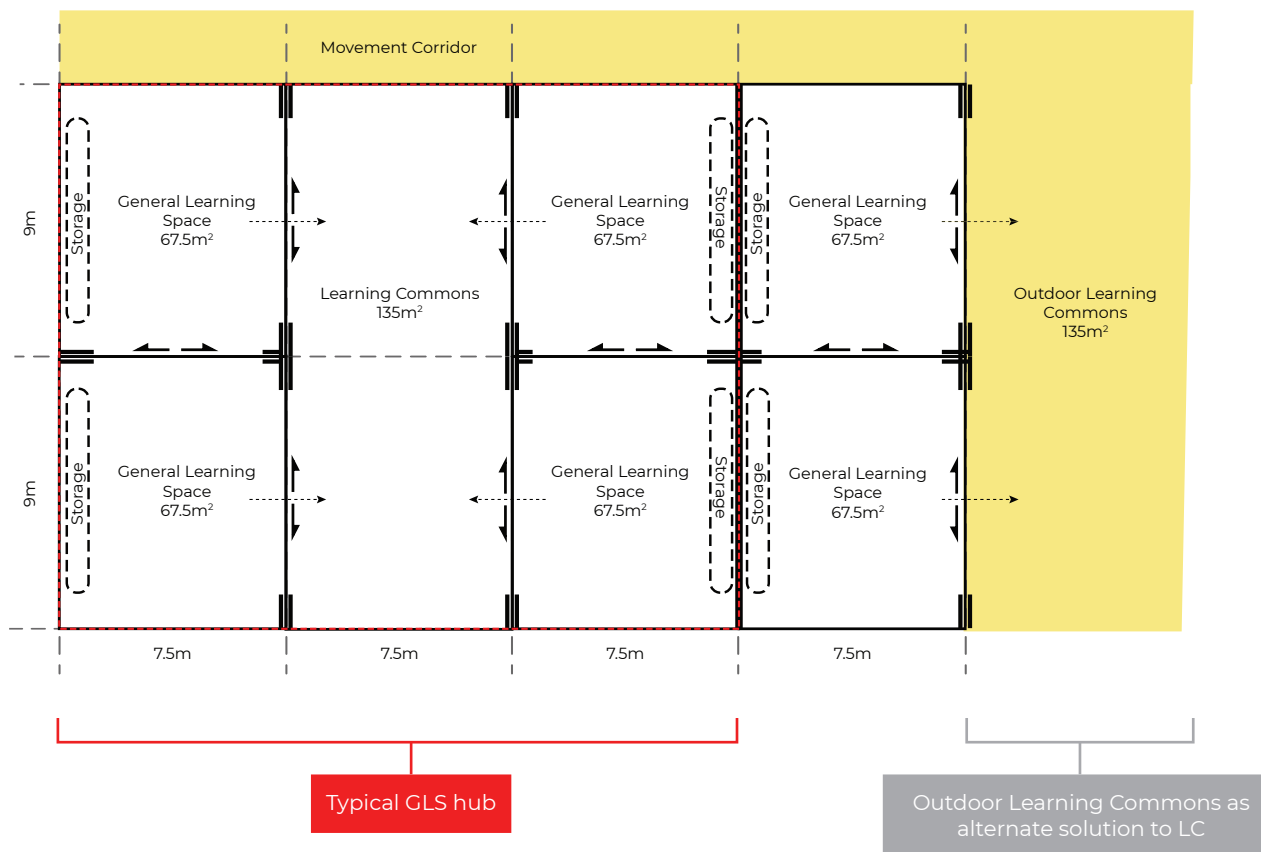


Indicative secondary school layout demonstrating desirable adjacency of spaces and general master planning principles.

Note: location of stair is indicative only and subject to appropriate fire egress solution

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 EXAMPLE LAYOUT



General Learning Space Hub

Primary + Secondary

Learning Commons

- Learning Commons to be directly accessible by 4 General Learning Spaces.
- This area can be divided into zones such as practical activities areas, break out spaces, seminar rooms and the like.
- Learning Commons can also be provided as an Outdoor Learning Commons which operates in a similar manner in an outdoor covered and weather protected environment.

General Learning Spaces

- Minimum GLS area is 60sqm clear (UFA).
- The total number of GLS provided is to be determined based on enrolment projections.
- The total GLS count should include all GLSs associated with Specialist Learning Units, senior learning and Additional Learning Units.
- Storage to be included within the GLS as cabinetry (min 6m² per GLS or equivalent 20 lineal metres of shelving).



	X-Small HS 700 students	Small HS 980 students	Medium HS 1,540 students	Large HS 2,020 students
Number of GLS required	up to 35 GLSs (total)	up to 49 GLSs (total)	up to 77 GLSs (total)	up to 101 GLSs (total)
<i>Breakdown</i>	20 GLS +15 GLS in Specialist Learning Hubs + Support Learning Hub GLSs	30 GLS +15 GLS in Specialist Learning Hubs +4 GLS* in Additional Learning Units + Support Learning Hub GLSs	45 GLS +26 GLS in Specialist Learning Hubs +6 GLS* in Additional Learning Units + Support Learning Hub GLSs	60 GLS +33 GLS in Specialist Learning Hubs +8 GLS* in Additional Learning Units + Support Learning Hub GLSs
Number of LC required	5 (including indoor LCs and OLCs)	8 (including indoor LCs and OLCs)	11 (including indoor LCs and OLCs)	15 (including indoor LCs and OLCs)

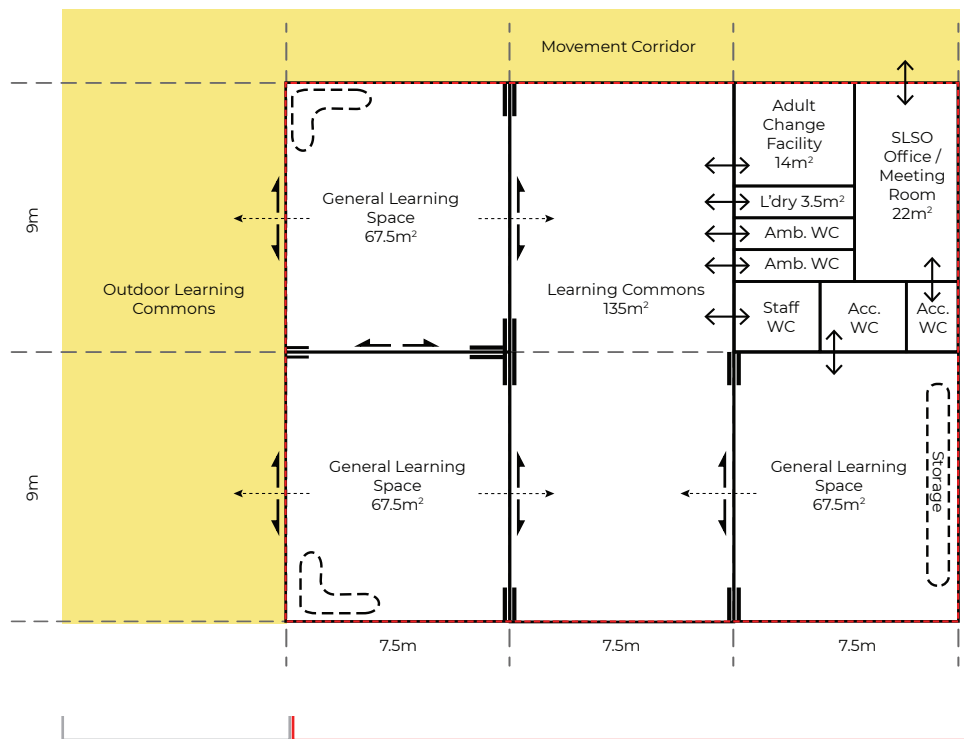
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EXAMPLE LAYOUT

Example Hub Layout – School Infrastructure NSW, June 2021

*GLS or equivalent bookable space
Refer Schedule of Accommodation for further detail



Outdoor Learning Commons adjacent may be a desirable solution

Typical GLS hub



Important note on support classes

The requirements of every support class will be different depending on the student profile and varying needs of the students who enrol at the school. For this reason, it is important that the standard design for support learning areas is a flexible as possible, and customised by way of zones (including furniture, fit out and equipment (FF&E)) to suit the needs of the students attending the school. These requirements may change year on year as new students come and go. The FF&E should be designed to allow flexibility and change with relative ease if required.

Support Learning Hub Primary + Secondary

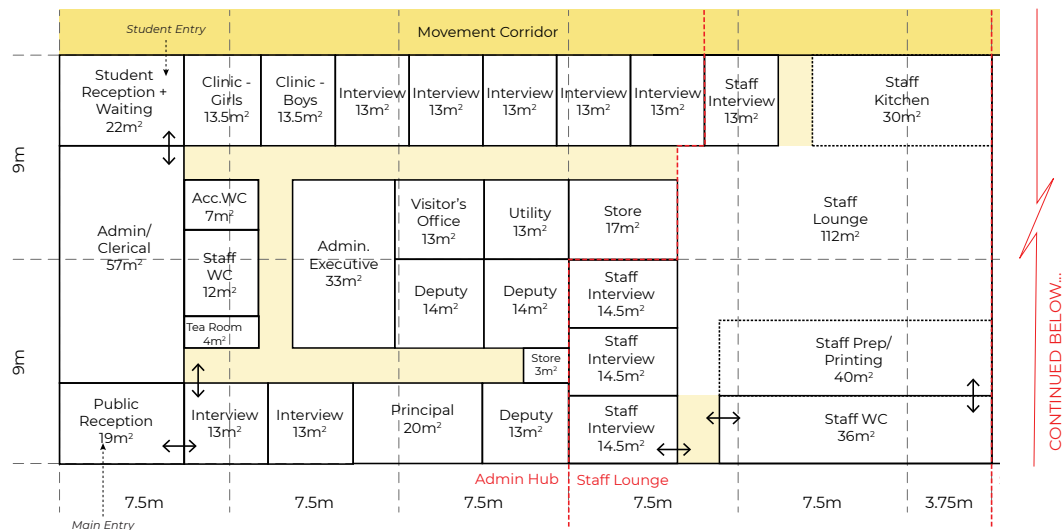
- LC area may be divided into zones for practical activities, break out spaces, sensory rooms, therapy spaces, life skills such as kitchens etc.
- OLC adjacent to the Support Learning Hub may be desirable as an alternate, quieter recreation space.
- Generous storage to be provided (as cabinetry) to allow for bulky mobility devices or medical equipment to be stored. Recommended to provide 8sqm for student personal effects and 6sqm lockable storage for teaching supplies within each GLS.
- Retreat zones may be included in the GLS to provide a safe space to move to if a situation is stressful or to self-manage emotions.
- Student amenities have direct access from the Learning Commons with line of sight from two GLS spaces. This arrangement allows students to independently use sanitary facilities whilst maintaining passive supervision from staff.
- One GLS has direct access to accessible sanitary facility - maintain line of sight from all GLSs.
- An adult change facility provides for students with high support needs and students who might require additional space. Access provided from the LC and/or external corridor.
- A unisex accessible sanitary facility, male and female ambulant facilities and laundry to be provided.
- An office for the School Learning Support Officer (SLSO) is provided for use during free periods, to undertake administrative tasks and store items, including confidential records.
- The SLSO Office also provides a private meeting space for parents.
- The SLSO Office also provides an opportunity for surveillance of the Support Unit entry / exit doors and common areas.
- Staff sanitary facilities have been within close proximity of the Support Hub.

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EXAMPLE LAYOUT

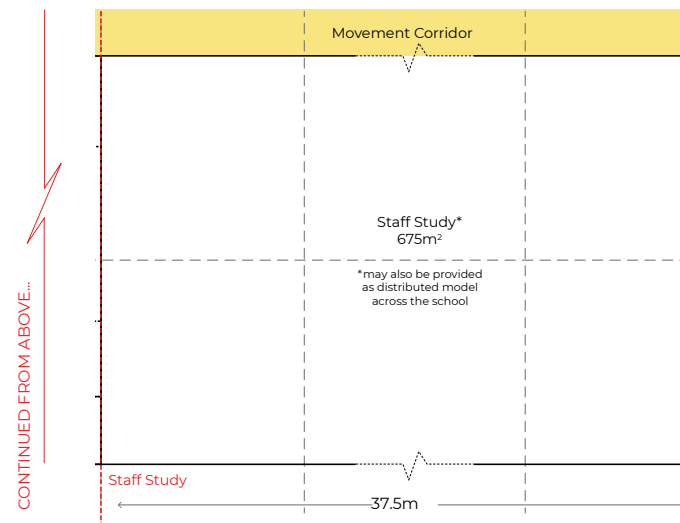
Example Hub Layout – School Infrastructure NSW, June 2021



Administration + Staff Hubs

Secondary School (Medium/Stream 9)

- Public reception space is to be accessible by general public, with direct access from the main school entry. Provide direct access to administration/clerical area and to one interview room (minimum).
- Clearly defined security line establishes publicly accessible areas within the administration hub, and creates a secure zone for staff and students.
- Student reception and waiting area directly accessible from inside the secure line of the school.
- The clinic is required to be located adjacent to the student reception and in close proximity to student accessible toilet. The clinic (both boys and girls) requires line of sight from the administration/clerical areas (internal glazing or installation of CCTV cameras)
- Direct link and access to staff lounge from the administration hub is recommended.
- Accessible toilet within the administration block is for students' exclusive use. Staff accessible toilet is located off the staff lounge.
- Dual access to one interview room is required from public reception and from secure administration block area.
- Staff study space may be more appropriate provided as a distributed model with smaller staff areas spread across the school.

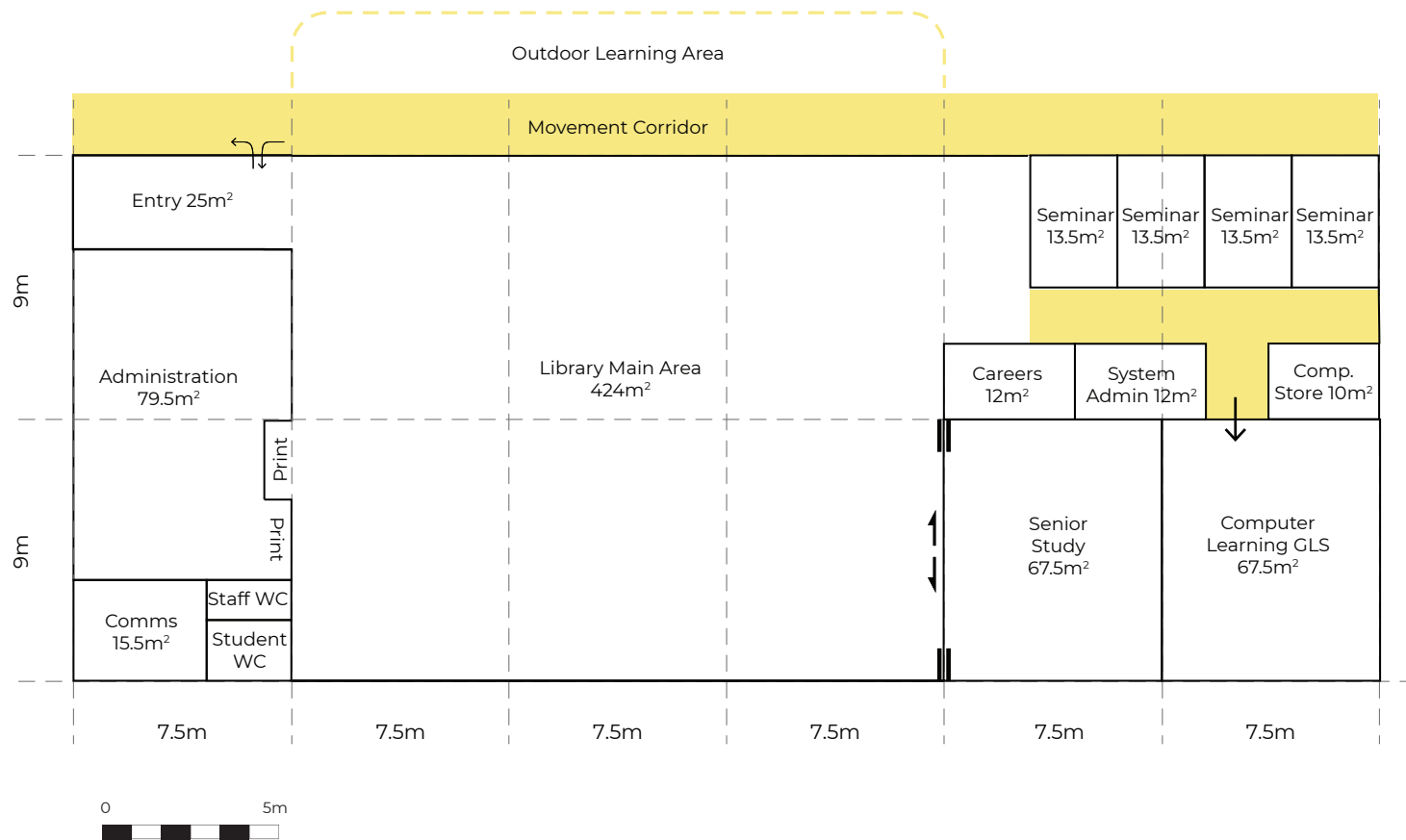


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EXAMPLE LAYOUT

Example Hub Layout – School Infrastructure NSW, June 2021



Library Hub

Secondary School (Medium/Stream 9)

- Single entry/exit point to main library space to ensure security of students and assets (eg. books)
- Librarian loan/returns desk located near the main entry point with clear sight lines for efficient supervision of main library area
- Office area to have direct access to staff toilets
- Bag storage to be located at the entry to the main library space, without compromising circulation.
- Opportunity to create outdoor learning area adjacent to the library.
- System admin area (with service desk for IT queries) to have direct access from the main library space.

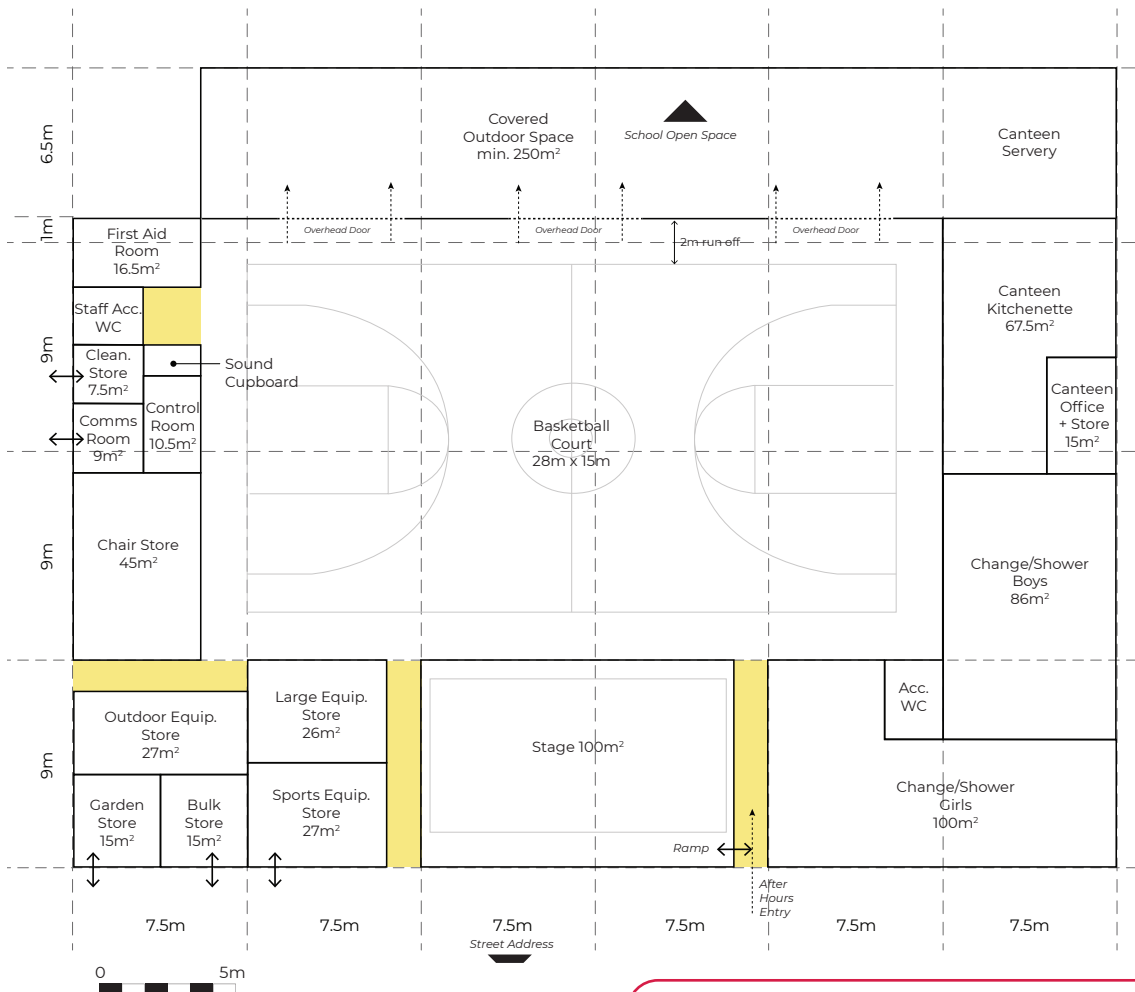
Note same layout applies for Secondary School (Small/Stream 6)

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EXAMPLE LAYOUT

Example Hub Layout – School Infrastructure NSW, June 2021



Important note on gymnasiums

Whilst the primary purpose of the gymnasium in a high school is to provide an indoor sports facility, the gymnasium is often also used for whole of school events such as assemblies, performances and HSC exams. This is an important consideration for the design and location of the gymnasium.

The gymnasium is also often utilised by the wider community outside of school hours for sports and other events. It is important that secure access is provided to ensure the safety of users and the asset after hours.

Gymnasium + Canteen

Secondary School (Medium/Stream 9)

- The gymnasium and canteen facilities are consolidated within a single hub, due to their favourable intersection of uses.
- The size of the main hall area allows for functional use as a full size basketball court, at 28m x 15m plus 2m run-off on all sides.
- Covered outdoor space (also referred to as COLA) is a desirable addition to the hub, and with the addition of large sectional overhead doors, it provides:
 - the opportunity to 'spill out' during whole of school assemblies and other large events that are held in the hall;
 - weather protected outdoor play area; and
 - covered area over the canteen servery.
- The gymnasium should have secure access outside of school hours from the school's main entry and/or car park to allow for secure community use.
- The canteen kitchenette provides servery windows than open into the main hall area, as well as out into the covered outdoor space. A suitable route for deliveries to the canteen should be considered.
- Bulk, garden & cleaning stores have been integrated into the hub. These store areas require access from the perimeter of the hall and suitable access routes provided to ensure heavy and bulky items can be easily maneuvered in and out.

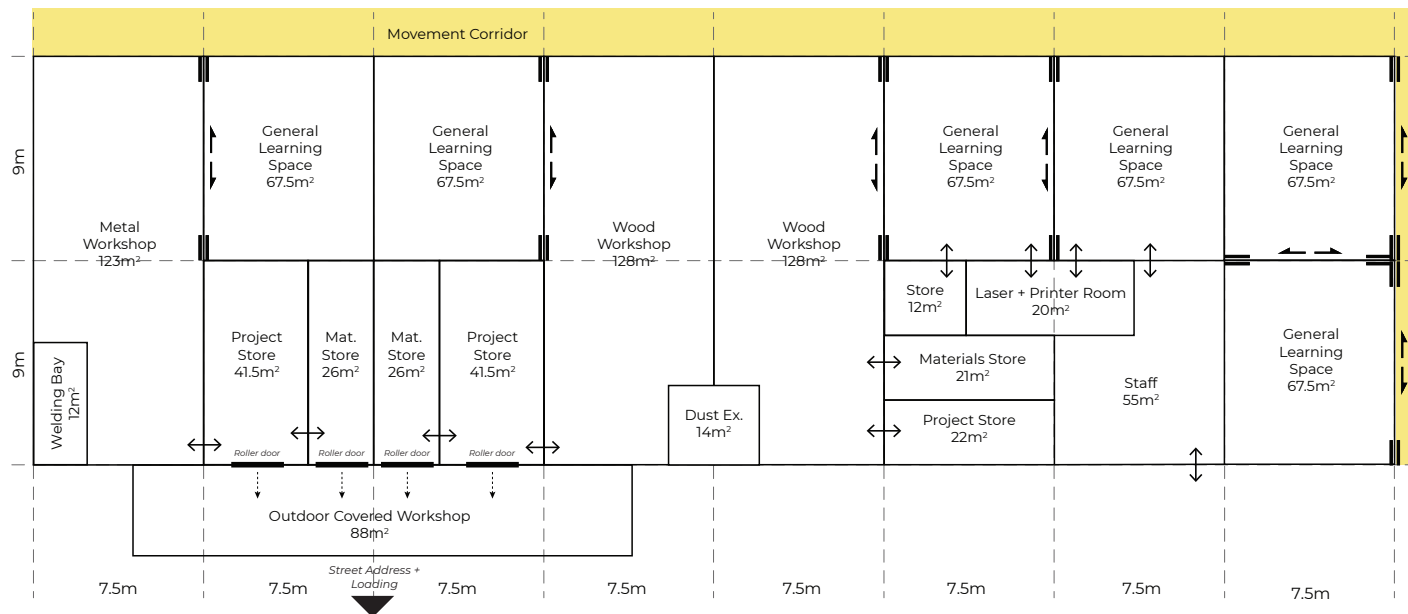
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EXAMPLE LAYOUT

Example Hub Layout – School Infrastructure NSW, June 2021

Metal + Wood Hub (Specialist Learning Hub) Secondary School (Medium/Stream 9)



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Note same layout applies for Secondary School (Large/Stream 12)

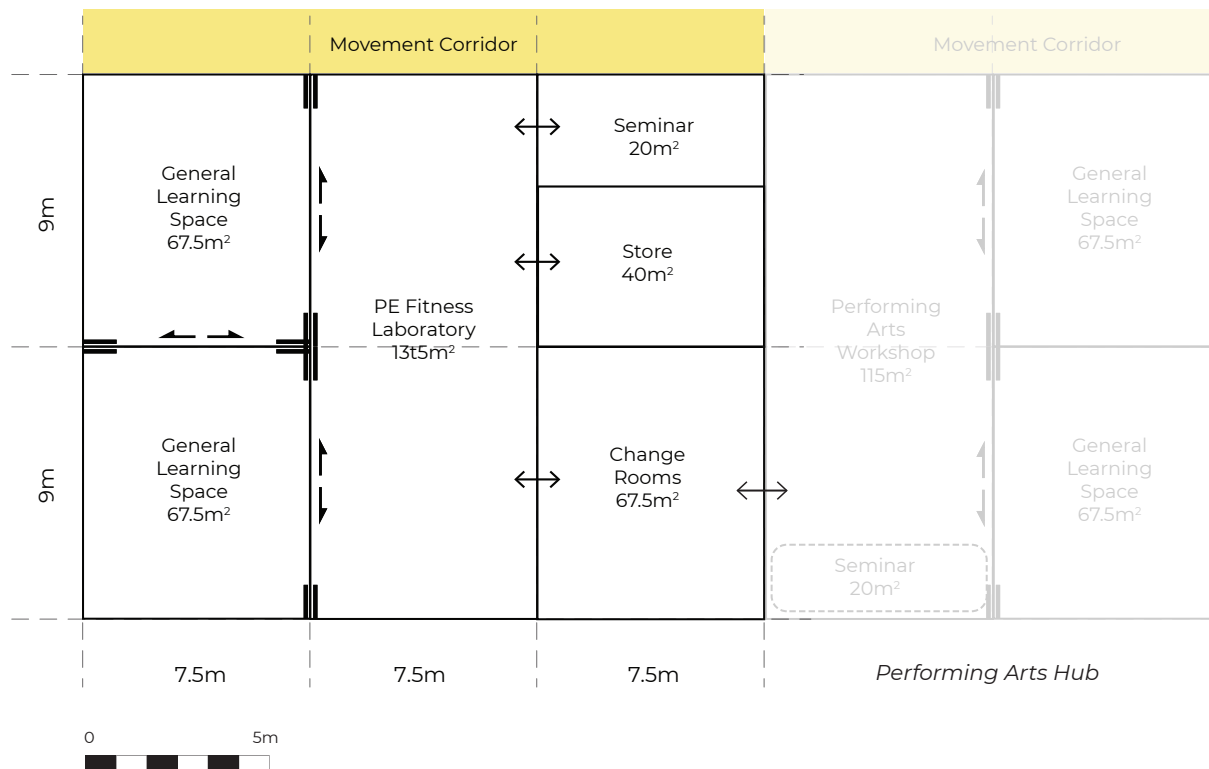
- Outdoor workshop has a direct relationship with internal workshops, material/project stores and loading dock.
- Direct access between Outdoor Covered Workshop and internal workshops via roller shutter doors is required.
- Separate material and project store rooms preferred for each workshop with external access to the outdoor covered workshop via a roller door. Roller door access allows storage of large project and bulk materials.
- Loading dock access to be designed to enable 10m rigid truck movement with entry and exit in a forward direction.
- Supervision, visibility and connectivity (direct access) between GLS and Workshops is mandatory. Internal glazing recommended.
- Direct access between GLSs is desirable.
- Distributed staff room to be located in proximity to the workshops for supervision purposes. WHS conditions of tools/equipment operation to be considered.
- Welding bay to be located inside the metal workshop for functionality and supervision purposes.
- LPG storage to be external and in proximity to metal workshop/welding bay.
- High level windows desirable to avoid distraction while using machine tools.
- Laser and 3D printer room required for digital technology subjects. This room has a direct functional relationship with GLS that includes computer equipment.
- Acoustic design input required for floors, walls, windows, outdoor workshop and dust extraction.
- Dust extraction system away from GLS areas to minimise acoustic impact, and open to outside to enable waste pick up without disruptions to class.
- Placement of large tables and machinery within workshops to ensure functionality of the space.

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EXAMPLE LAYOUT

Example Hub Layout – School Infrastructure NSW, June 2021



Health + PE Hub (Specialist Learning Hub) Secondary School (Medium/Stream 9)

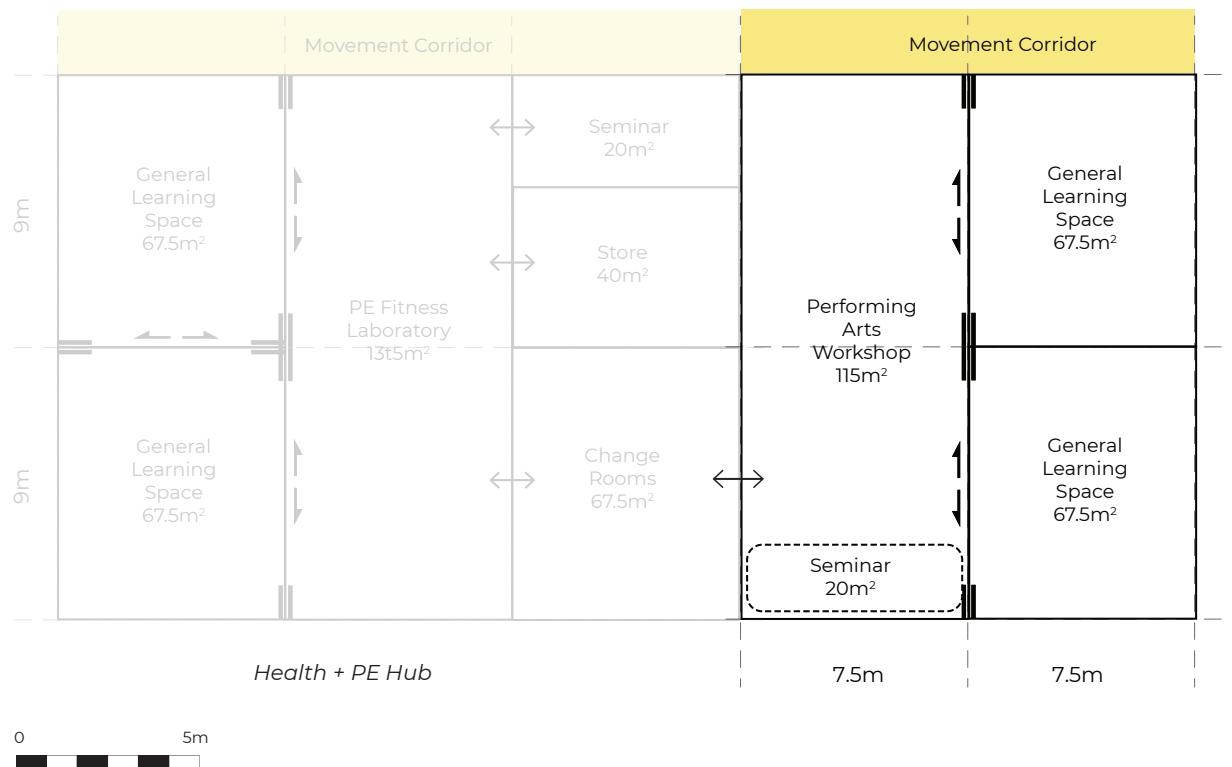
- Designed to accommodate large groups for student fitness and other Health/PE activities. Multipurpose space with specialised equipment for physical fitness and/or used as an open area for exercise and wellbeing activities.
- Internal glazing to the GLSs allows staff to supervise the fitness facilities from the GLS
- The space can be used for other purposes including student meetings, assemblies and creative and investigative learning activities.
- The workshop may be used as an after school activity space, support student physical therapy area and a staff, student (or community) recreation space.
- Display space on walls to showcase student work.
- The intended purpose of the Health and PE workshop on each project will influence the detailed fitout and requires consideration with each school at early design. If the school offers specialised uses such as gymnastics a sprung timber floor may be required, or if weight training equipment is intended to be installed floor loading and acoustics are to be considered and use of the workshop as open fitness area would be limited.
- Fitout may include a full wall mirror and exercise barre in front of the mirror. Floor finish selection must consider hygiene, cleaning and maintenance.
- Generous storage is required for bulky sporting equipment, floor mats, rollers, swiss balls and the like.
- Direct adjacency to change rooms is required for students to change to specialised clothing for health and physical education activities.
- When located adjacent the Performing Arts Hub change room facility may be shared.

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EXAMPLE LAYOUT

Example Hub Layout – School Infrastructure NSW, June 2021



Note same layout applies for Secondary School (X-Small & Small / Stream 4 & 6)

Performing Arts Hub (Specialist Learning Hub) Secondary School (Medium/Stream 9)

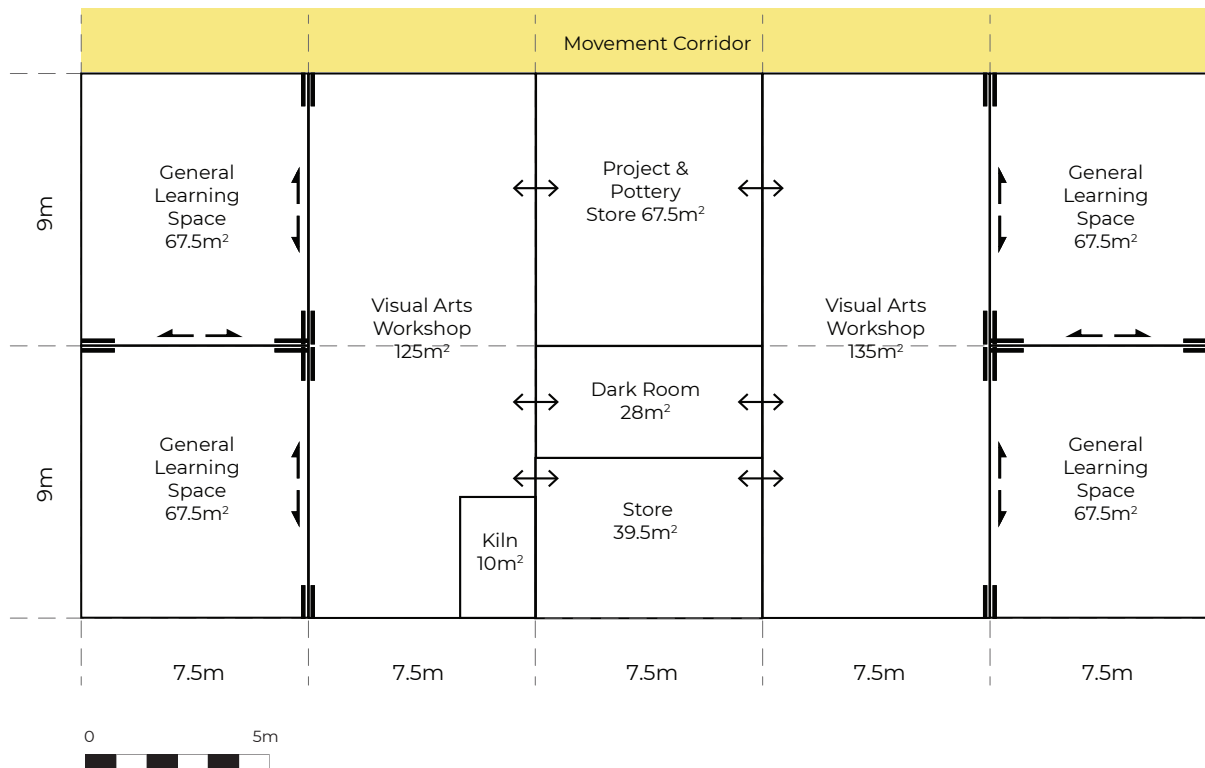
- Multipurpose facilities for health, physical education, dance, drama and music. May be used after school hours for rehearsal and/or shared with the community.
- Direct access and visual connection between the GLSs (theory) and the workshop and seminar spaces (practical) is required. Internal glazing may be appropriate to allow visual surveillance across the hub, as small groups break out to rehearse in different areas. In this learning unit – theory and practice are integrated activities and use of the GLS, workshop and seminar is continuous.
- This learning hub should be located in close proximity to change facilities, as student activities in the workshop and seminar spaces may require a change into specialised clothing.
- The workshop provides a multipurpose learning space equipped for creative and performing arts, to participate in rehearsal and perform in a range of activities including dance, drama or other related activities such as yoga.
- One mirrored wall, a ballet barre, lighting bar at high level, and capacity for performance lighting and sound control systems is required.
- Teachers report safe dance practice requires a sprung timber floor - a WHS provision.
- Storage is required for dance and performance, and more secure storage for musical instruments and technical equipment which are fragile, bulky and high capital cost items.

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EXAMPLE LAYOUT

Example Hub Layout – School Infrastructure NSW, June 2021



Note same layout applies for Secondary School Large/Stream 12

Visual Arts Hub (Specialist Learning Hub) Secondary School (Medium/Stream 9)

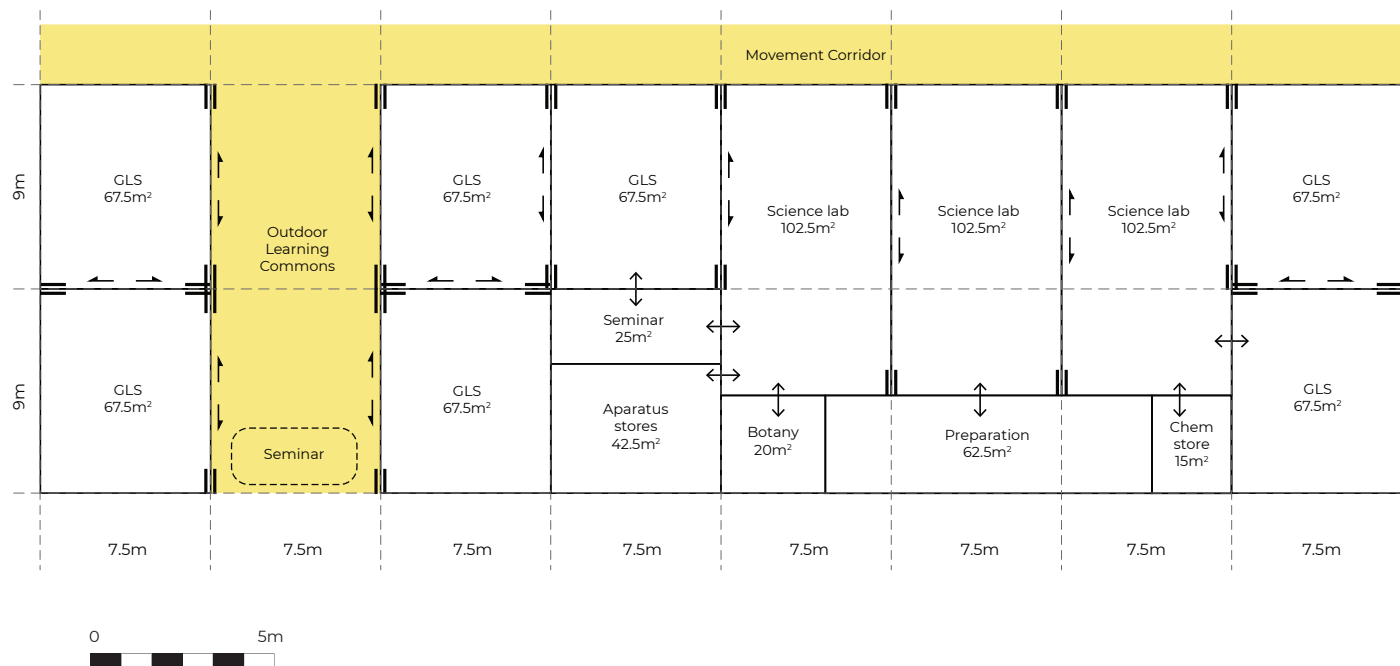
- A place of inspiration to showcase student work.
- Direct access to visual arts workshop from GLS. Connectivity to enable team teaching is desirable.
- A practical maker space directly accessible from the visual arts GLS. Provide flexible capacity for mixed media art making. The capacity to break out to make work in outdoor learning commons or covered outdoor learning area as an alternative is advantageous.
- Art troughs and benching required, and provision for drying of student work.
- Provide opportunities for display of student work.
- High quality of natural light is desirable.
- Dark room (wet) - internal room with light lock. Perimeter benching at standing height sufficient for multiple workstations of enlarger and chemical trays, wet bench with double art trough sink, hanging facility to dry prints. One accessible workstation at adjustable height.
- Digital media dark room (dry) - a secure room for hi-tech processing and printing equipment may be provided as a separate room within the dark room.
- Store to be accessible directly from the workshop with generous shelving and racking for bulk materials storage, art media and protective clothing.
- Project store directly accessible from the workshop. Capacity for drying student work required. Storage of HSC project work in a secure zone within the general project store is desirable.
- Storage for student work in all media includes racks for work to dry, shelving for materials and student work and secure storage for HS senior projects
- Kiln can be gas or electric but not wood fired. May be located with separate external access rather than internally from the workshop.

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EXAMPLE LAYOUT

Example Hub Layout – School Infrastructure NSW, June 2021



Science Hub (Specialist Learning Hub) Secondary School (Medium/Stream 9)

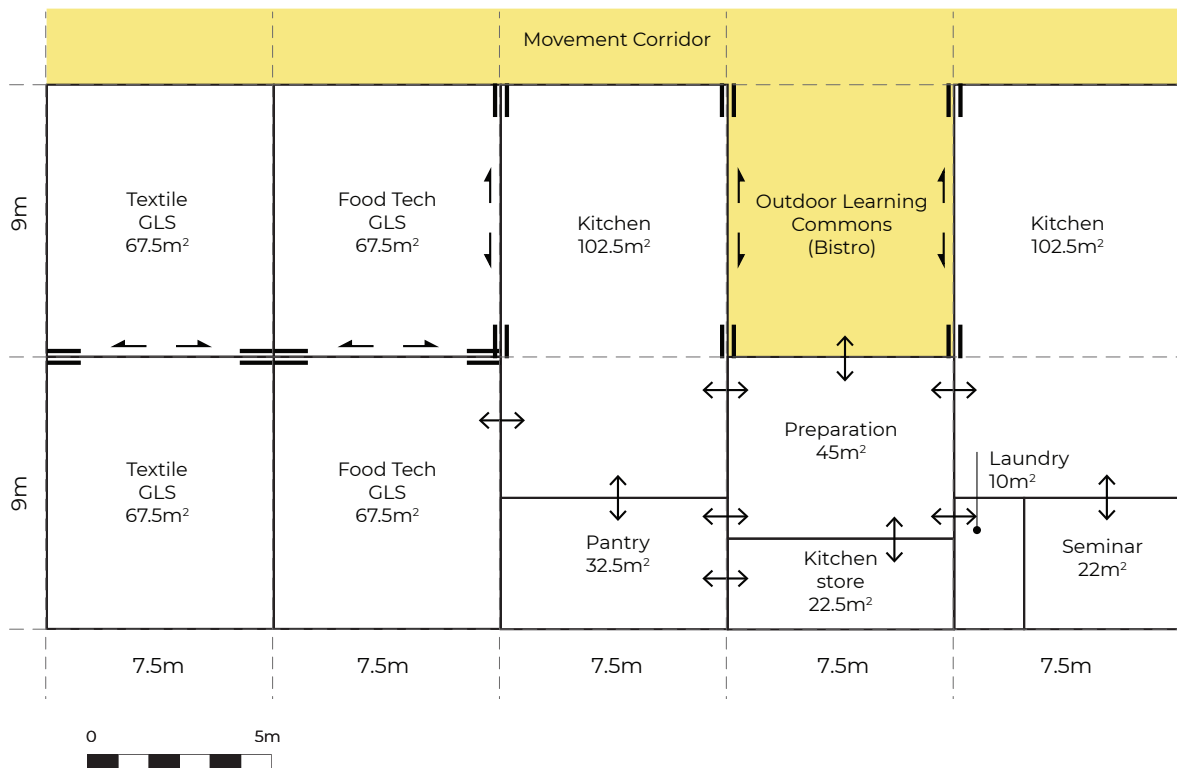
- The science GLS is intended to be used as a theory learning space, adjacent to the science laboratory.
- A science GLS with demonstration bench includes a wet area, with overhead mirror or camera and display, an extension table and sufficient student desks and chairs to enable a class group to be seated.
- The science laboratories are an integral part of the science learning hub for practical teaching and learning. The laboratories are designed to support explore, investigate, create, fabricate, and construct activities.
- Fixed workstations and services are complemented by movable extension tables enabling teachers to develop a variety of working groups. Workbenches, laboratory facilities, sinks, a fume cupboard, and a safety shower are to be provided.
- Direct access between the laboratories and the preparation space is required.
- The science seminar space is a multipurpose 'break out' area, suitable for individual use to medium sized groups.
- The botany/zoology room houses plants and/or animal specimens. Sunlight access is desirable for plant growth.
- The chemical store room is dedicated to the bulk storage of hazardous products.
- The apparatus and equipment store room requires direct access from the preparation room and is fitted out with mobile steel shelving (compactus) for the storage of apparatus and equipment used within the science learning hub. Wet and dry benching should be provided for long term experiments.

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EXAMPLE LAYOUT

Example Hub Layout – School Infrastructure NSW, June 2021



Note same layout applies for Secondary School (Large /Stream 12)

Food + Textiles Hub (Specialist Learning Hub) Secondary School (Medium/Stream 9)

- Quality safe working conditions with appropriate furniture settings based on activities.
- The Food Technology and Textile Technology GLS spaces accommodate a demonstration bench within a wet area with overhead mirror or camera and display, an extension table and sufficient student desks and chairs to enable a class group to be seated.
- Sufficient workbench space and storage is required for handling of materials and textile machinery.
- The Food Technology GLS should have direct access to an adjacent Kitchen.
- The Kitchens are hands-on learning spaces with demonstration facilities and work benches. Direct access to the Materials Store, Kitchen Preparation and GLSs is required.
- A bistro/learning commons directly accessible from the food technology spaces provides for a variety of learning settings, experimentation and an appropriate area to consume food prepared in class.
- The Kitchen - Preparation Room is dedicated to the preparation of food and storage of materials to be used in the Kitchen with direct access to the Kitchen and the Pantry. A Servery area is provided.
- The Materials Store is dedicated to the storage of materials and equipment used within the Kitchen. It is essential to be in close proximity to the kitchen(s).
- The Pantry is dedicated to the dry storage of food products and should have direct access to the Preparation Room and be near the Kitchen.
- The Seminar Room is a multipurpose room with desks and chairs for individual to medium sized groups.
- The Laundry is a support space with fixtures and equipment to support the cleaning of clothes and linen. The space should be equipped with a laundry tub, washing machine and dryer.
- Ease of Sanitation and compliance with food handling requirements is required.
- High quality of natural light is desirable with control.

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EXAMPLE LAYOUT

Example Hub Layout – School Infrastructure NSW, June 2021

Example Hub Layouts

Secondary School

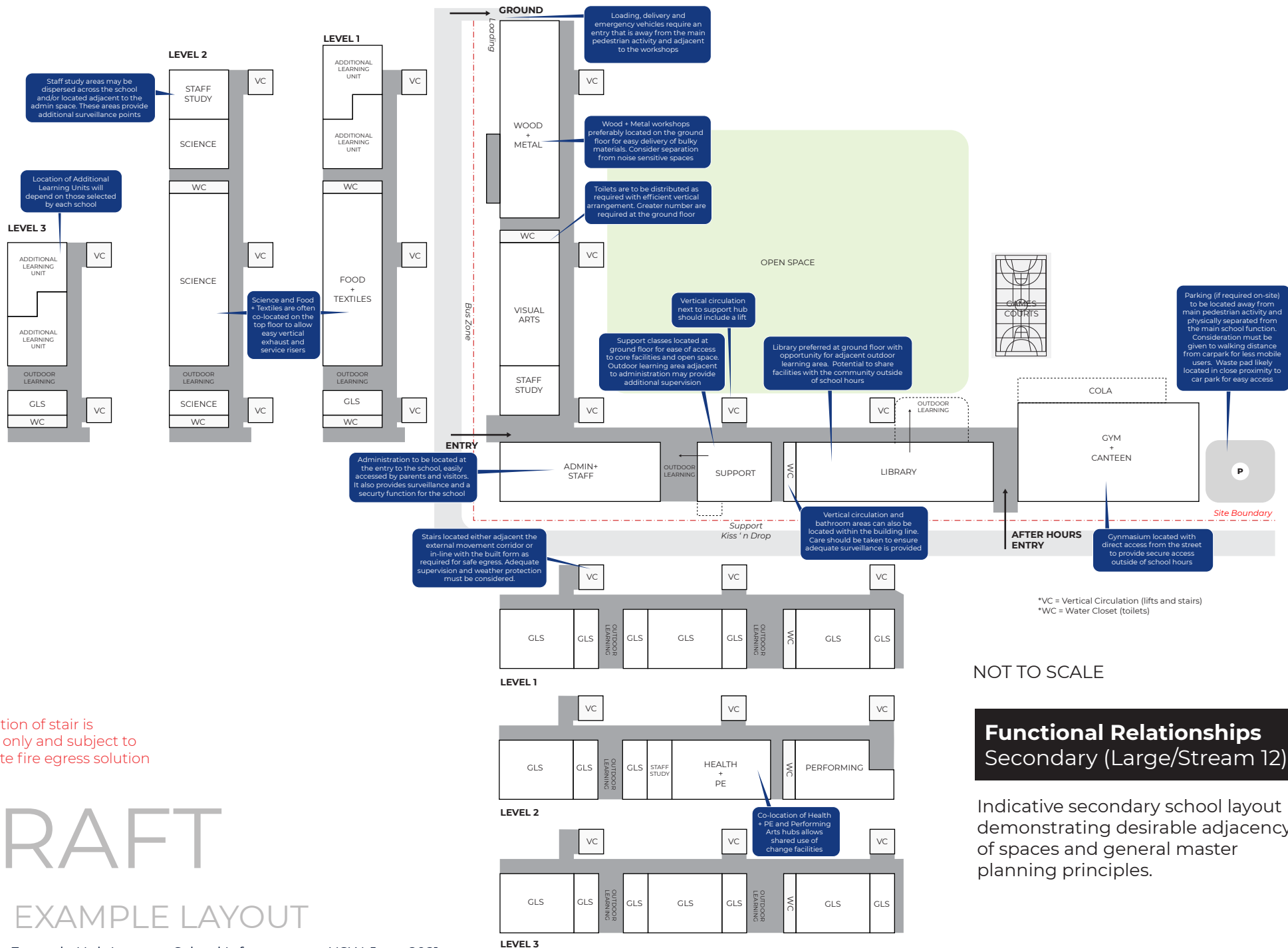
Large / Stream 12

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EXAMPLE LAYOUT

Example Hub Layout – School Infrastructure NSW, June 2021



NOT TO SCALE

Functional Relationships Secondary (Large/Stream 12)

Indicative secondary school layout demonstrating desirable adjacency of spaces and general master planning principles.

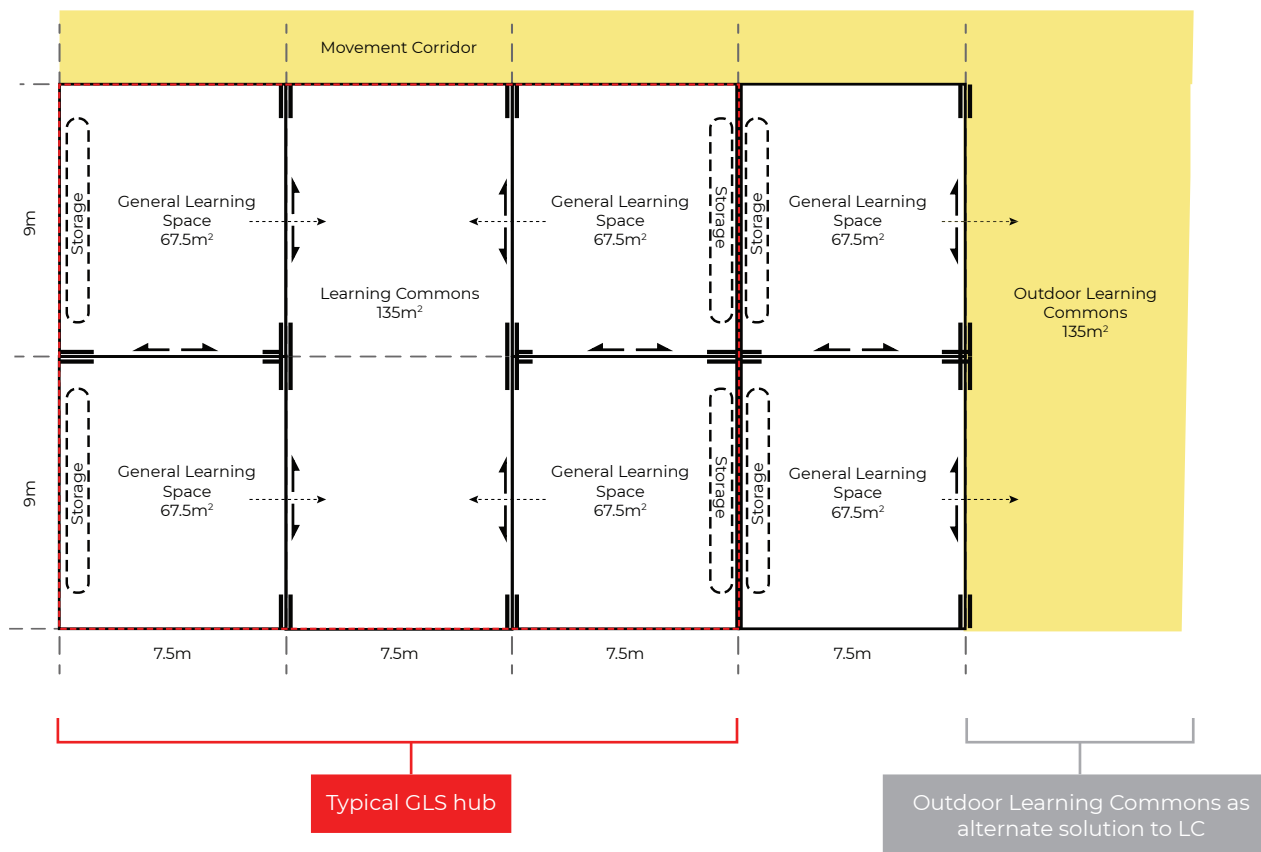
Note: location of stair is indicative only and subject to appropriate fire egress solution

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EXAMPLE LAYOUT



Example Hub Layout – School Infrastructure NSW, June 2021



General Learning Space Hub

Primary + Secondary

Learning Commons

- Learning Commons to be directly accessible by 4 General Learning Spaces.
- This area can be divided into zones such as practical activities areas, break out spaces, seminar rooms and the like.
- Learning Commons can also be provided as an Outdoor Learning Commons which operates in a similar manner in an outdoor covered and weather protected environment.

General Learning Spaces

- Minimum GLS area is 60sqm clear (UFA).
- The total number of GLS provided is to be determined based on enrolment projections.
- The total GLS count should include all GLSs associated with Specialist Learning Units, senior learning and Additional Learning Units.
- Storage to be included within the GLS as cabinetry (min 6m² per GLS or equivalent 20 lineal metres of shelving).



	X-Small HS 700 students	Small HS 980 students	Medium HS 1,540 students	Large HS 2,020 students
Number of GLS required	up to 35 GLSs (total)	up to 49 GLSs (total)	up to 77 GLSs (total)	up to 101 GLSs (total)
<i>Breakdown</i>	20 GLS +15 GLS in Specialist Learning Hubs + Support Learning Hub GLSs	30 GLS +15 GLS in Specialist Learning Hubs +4 GLS* in Additional Learning Units + Support Learning Hub GLSs	45 GLS +26 GLS in Specialist Learning Hubs +6 GLS* in Additional Learning Units + Support Learning Hub GLSs	60 GLS +33 GLS in Specialist Learning Hubs +8 GLS* in Additional Learning Units + Support Learning Hub GLSs
Number of LC required	5 (including indoor LCs and OLCs)	8 (including indoor LCs and OLCs)	11 (including indoor LCs and OLCs)	15 (including indoor LCs and OLCs)

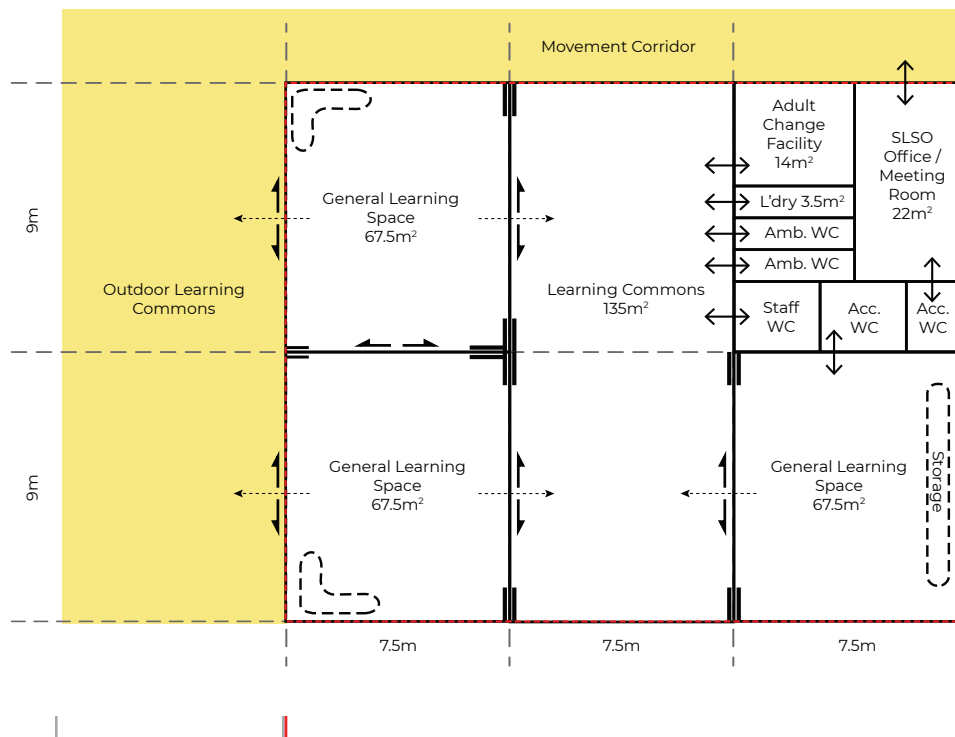
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EXAMPLE LAYOUT



Example Hub Layout – School Infrastructure NSW, June 2021

*GLS or equivalent bookable space
Refer Schedule of Accommodation for further detail



Outdoor Learning Commons adjacent may be a desirable solution

Typical GLS hub



Important note on support classes

The requirements of every support class will be different depending on the student profile and varying needs of the students who enrol at the school. For this reason, it is important that the standard design for support learning areas is a flexible as possible, and customised by way of zones (including furniture, fit out and equipment (FF&E)) to suit the needs of the students attending the school. These requirements may change year on year as new students come and go. The FF&E should be designed to allow flexibility and change with relative ease if required.

Support Learning Hub

Primary + Secondary

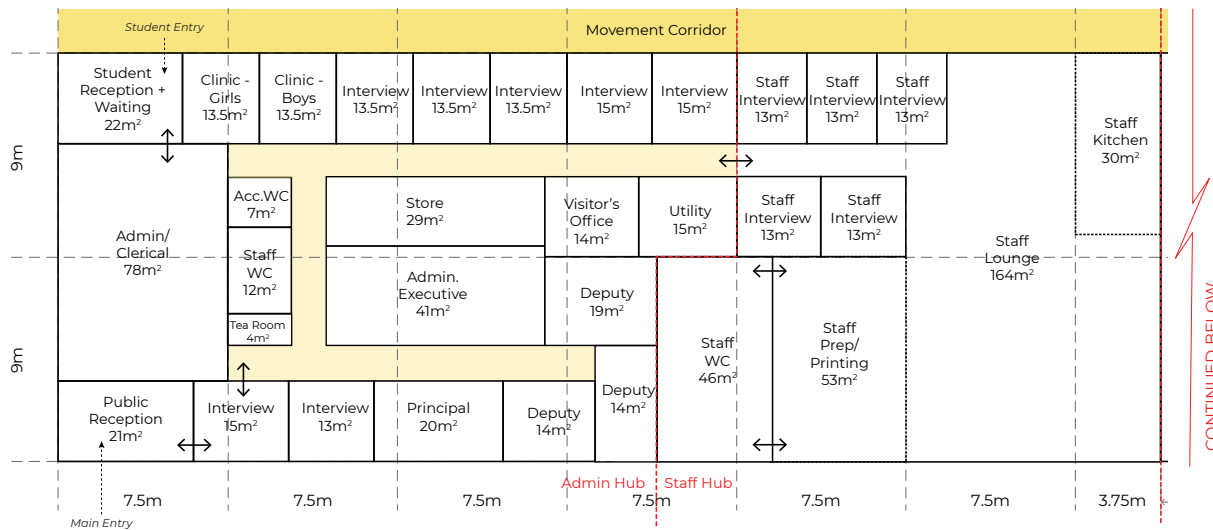
- LC area may be divided into zones for practical activities, break out spaces, sensory rooms, therapy spaces, life skills such as kitchens etc.
- OLC adjacent to the Support Learning Hub may be desirable as an alternate, quieter recreation space.
- Generous storage to be provided (as cabinetry) to allow for bulky mobility devices or medical equipment to be stored. Recommended to provide 8sqm for student personal effects and 6sqm lockable storage for teaching supplies within each GLS.
- Retreat zones may be included in the GLS to provide a safe space to move to if a situation is stressful or to self-manage emotions.
- Student amenities have direct access from the Learning Commons with line of sight from two GLS spaces. This arrangement allows students to independently use sanitary facilities whilst maintaining passive supervision from staff.
- One GLS has direct access to accessible sanitary facility - maintain line of sight from all GLSs.
- An adult change facility provides for students with high support needs and students who might require additional space. Access provided from the LC and/or external corridor.
- A unisex accessible sanitary facility, male and female ambulant facilities and laundry to be provided.
- An office for the School Learning Support Officer (SLSO) is provided for use during free periods, to undertake administrative tasks and store items, including confidential records.
- The SLSO Office also provides a private meeting space for parents.
- The SLSO Office also provides an opportunity for surveillance of the Support Unit entry / exit doors and common areas.
- Staff sanitary facilities have been within close proximity of the Support Hub.

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EXAMPLE LAYOUT

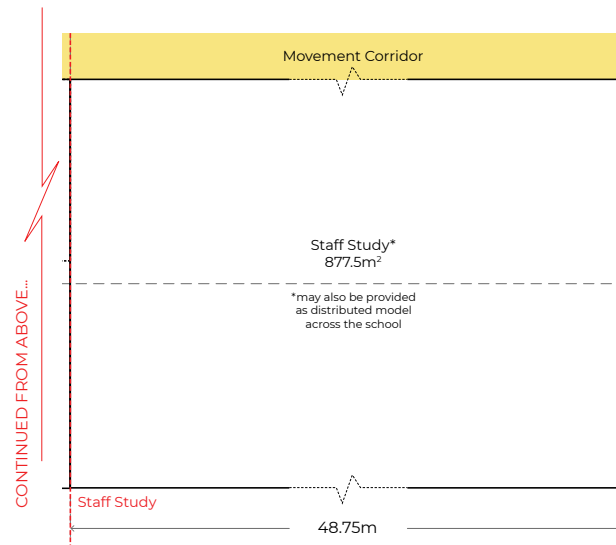
Example Hub Layout – School Infrastructure NSW, June 2021



Administration + Staff Hubs

Secondary School (Large/Stream 12)

- Public reception space is to be accessible by general public, with direct access from the main school entry. Provide direct access to administration/clerical area and to one interview room (minimum).
- Clearly defined security line establishes publicly accessible areas within the administration hub, and creates a secure zone for staff and students.
- Student reception and waiting area directly accessible from inside the secure line of the school.
- The clinic is required to be located adjacent to the student reception and in close proximity to student accessible toilet. The clinic (both boys and girls) requires line of sight from the administration/clerical areas (internal glazing or installation of CCTV cameras)
- Direct link and access to staff lounge from the administration hub is recommended.
- Accessible toilet within the administration block is for students' exclusive use. Staff accessible toilet is located off the staff lounge.
- Staff study space may be more appropriate provided as a distributed model with smaller staff areas spread across the school.

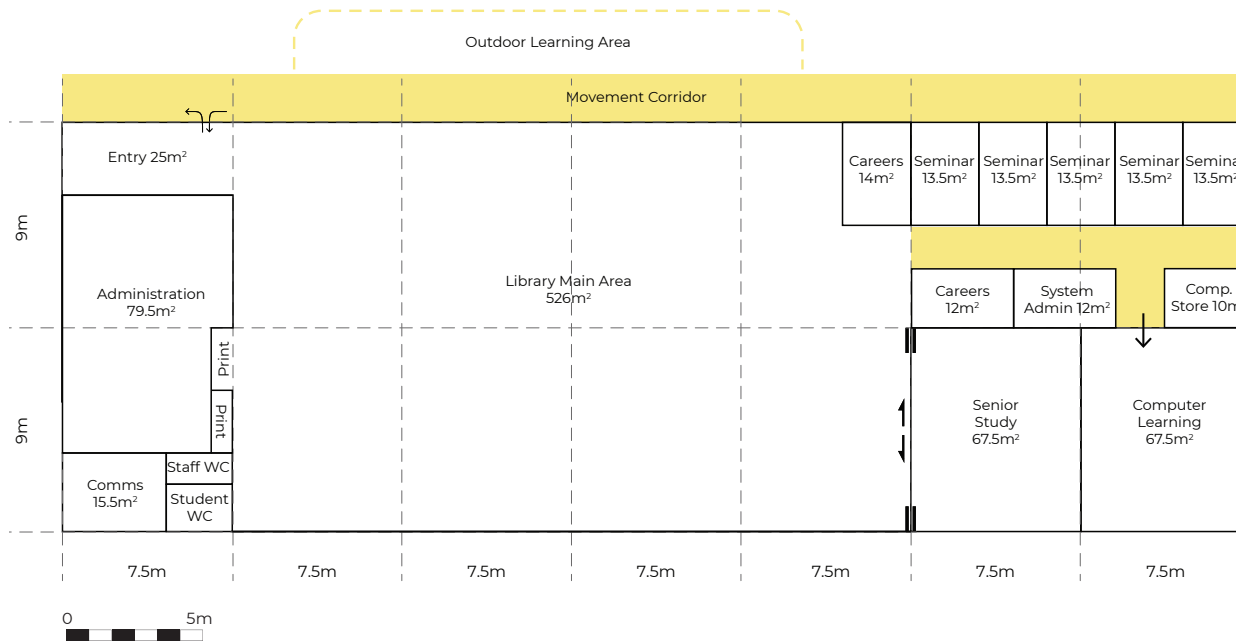


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EXAMPLE LAYOUT

Example Hub Layout – School Infrastructure NSW, June 2021



Library Hub

Secondary School (Large/Stream 12)

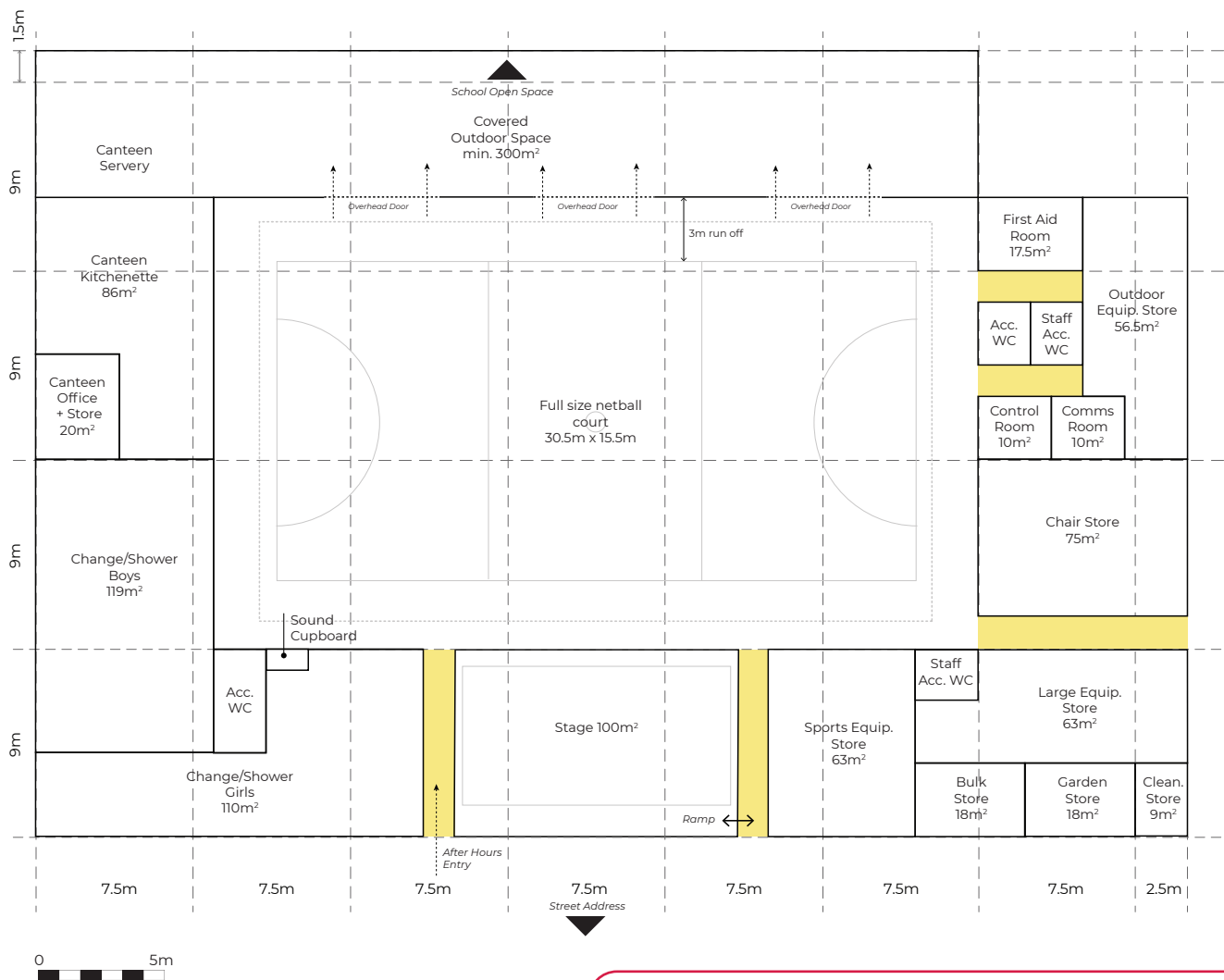
- Single entry/exit point to main library space to ensure security of students and assets (eg. books)
- Librarian loan/returns desk located near the main entry point with clear sight lines for efficient supervision of main library area
- Office area to have direct access to staff toilets
- Bag storage to be located at the entry to the main library space, without compromising circulation.
- Opportunity to create outdoor learning area adjacent to the library.
- System admin area (with service desk for IT queries) to have direct access from the main library space.

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EXAMPLE LAYOUT

Example Hub Layout – School Infrastructure NSW, June 2021



Gymnasium + Canteen

Secondary School (Large/Stream 12)

- The gymnasium and canteen facilities are consolidated within a single hub, due to their favourable intersection of uses.
- The size of the main hall area allows for functional use as a full size basketball court, at 28m x 15m plus 2m run-off on all sides.
- Covered outdoor space (also referred to as COLA) is a desirable addition to the hub, and with the addition of large sectional overhead doors, it provides:
 - the opportunity to 'spill out' during whole of school assemblies and other large events that are held in the hall;
 - weather protected outdoor play area; and
 - covered area over the canteen servery.
- The gymnasium should have secure access outside of school hours from the school's main entry and/or car park to allow for secure community use.
- The canteen kitchenette provides servery windows than open into the main hall area, as well as out into the covered outdoor space. A suitable route for deliveries to the canteen should be considered.
- Bulk, garden & cleaning stores have been integrated into the hub. These store areas require access from the perimeter of the hall and suitable access routes provided to ensure heavy and bulky items can be easily maneuvered in and out.

Important note on gymnasiums

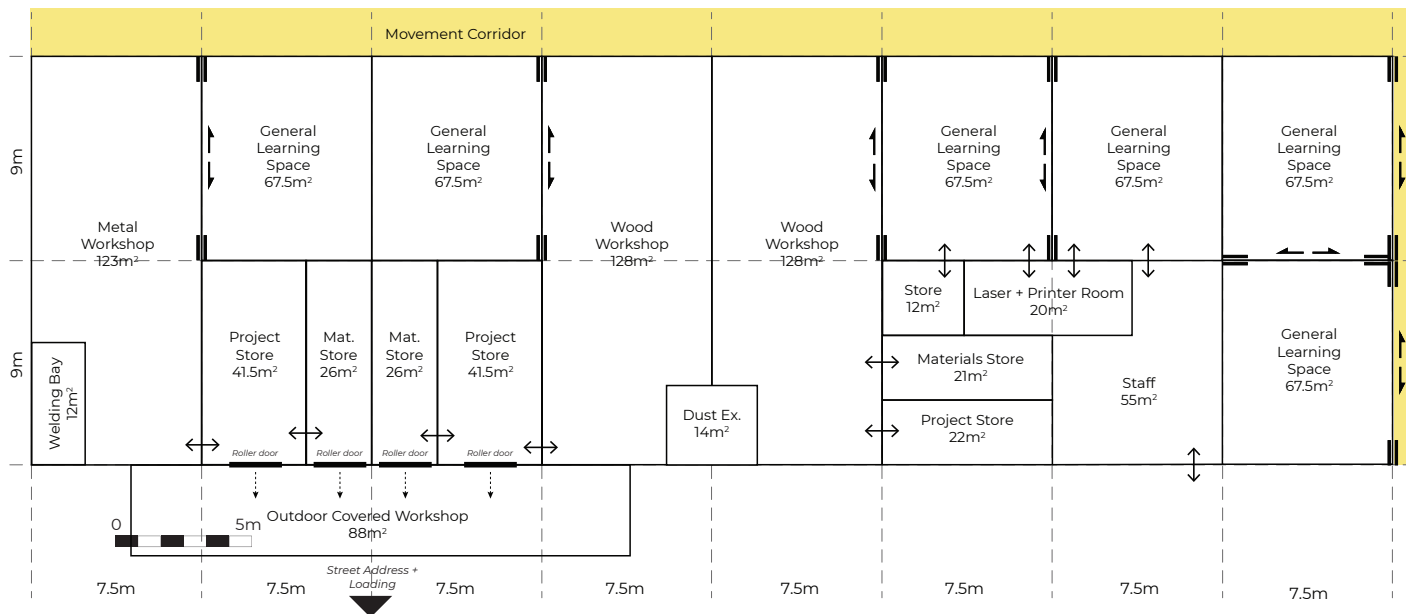
Whilst the primary purpose of the gymnasium in a high school is to provide an indoor sports facility, the gymnasium is often also used for whole of school events such as assemblies, performances and HSC exams. This is an important consideration for the design and location of the gymnasium.

The gymnasium is also often utilised by the wider community outside of school hours for sports and other events. It is important that secure access is provided to ensure the safety of users and the asset after hours.

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EXAMPLE LAYOUT

Metal + Wood Hub (Specialist Learning Hub) Secondary School (Large/Stream 12)



Note same layout applies for Secondary School (Medium/Stream 9)

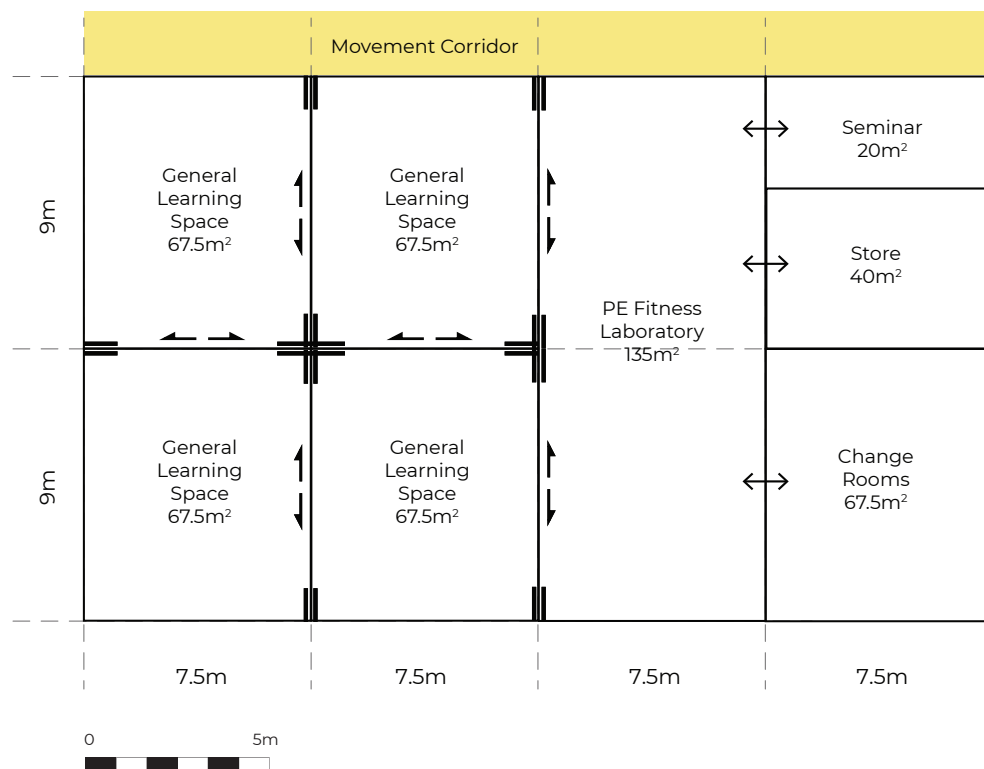
- Outdoor workshop has a direct relationship with internal workshops, material/project stores and loading dock.
- Direct access between Outdoor Covered Workshop and internal workshops via roller shutter doors is required.
- Separate material and project store rooms preferred for each workshop with external access to the outdoor covered workshop via a roller door. Roller door access allows storage of large project and bulk materials.
- Loading dock access to be designed to enable 10m rigid truck movement with entry and exit in a forward direction.
- Supervision, visibility and connectivity (direct access) between GLS and Workshops is mandatory. Internal glazing recommended.
- Direct access between GLSs is desirable.
- Distributed staff room to be located in proximity to the workshops for supervision purposes. WHS conditions of tools/equipment operation to be considered.
- Welding bay to be located inside the metal workshop for functionality and supervision purposes.
- LPG storage to be external and in proximity to metal workshop/welding bay.
- High level windows desirable to avoid distraction while using machine tools.
- Laser and 3D printer room required for digital technology subjects. This room has a direct functional relationship with GLS that includes computer equipment.
- Acoustic design input required for floors, walls, windows, outdoor workshop and dust extraction.
- Dust extraction system away from GLS areas to minimise acoustic impact, and open to outside to enable waste pick up without disruptions to class.
- Placement of large tables and machinery within workshops to ensure functionality of the space.

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EXAMPLE LAYOUT

Example Hub Layout – School Infrastructure NSW, June 2021



Health + PE Hub *(Specialist Learning Hub)* Secondary School (Large/Stream 12)

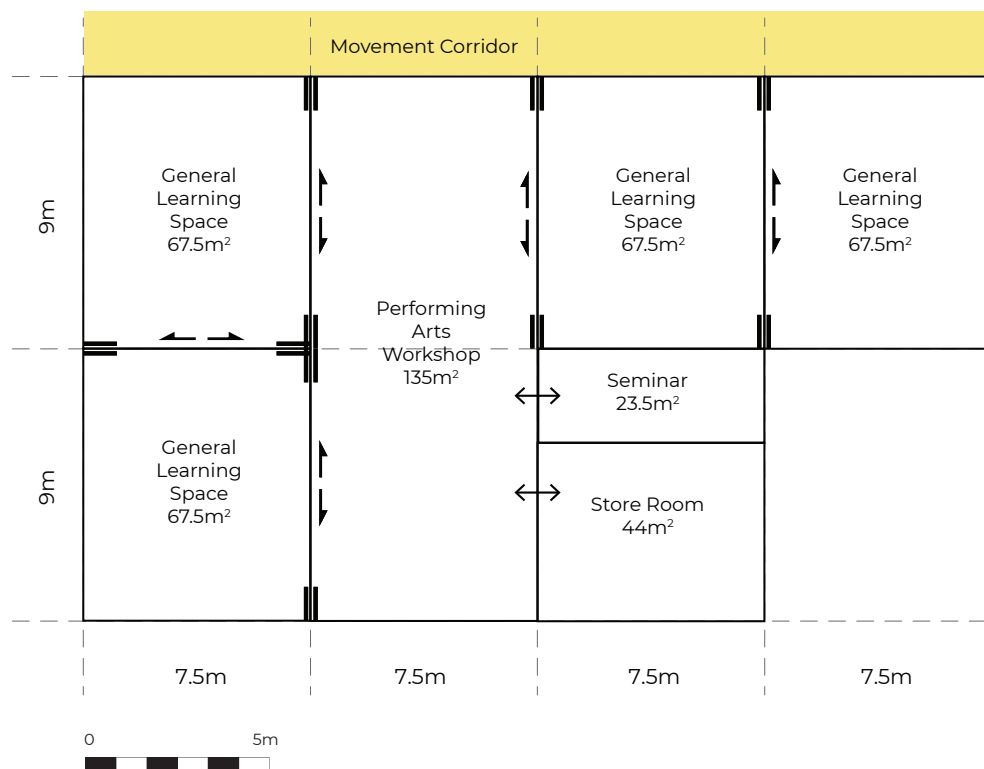
- Designed to accommodate large groups for student fitness and other Health/PE activities. Multipurpose space with specialised equipment for physical fitness and/or used as an open area for exercise and wellbeing activities.
- Internal glazing to the GLSs allows staff to supervise the fitness facilities from the GLS
- The space can be used for other purposes including student meetings, assemblies and creative and investigative learning activities.
- The workshop may be used as an after school activity space, support student physical therapy area and a staff, student (or community) recreation space.
- Display space on walls to showcase student work.
- The intended purpose of the Health and PE workshop on each project will influence the detailed fitout and requires consideration with each school at early design. If the school offers specialised uses such as gymnastics a sprung timber floor may be required, or if weight training equipment is intended to be installed floor loading and acoustics are to be considered and use of the workshop as open fitness area would be limited.
- Fitout may include a full wall mirror and exercise barre in front of the mirror. Floor finish selection must consider hygiene, cleaning and maintenance.
- Generous storage is required for bulky sporting equipment, floor mats, rollers, swiss balls and the like.
- Direct adjacency to change rooms is required for students to change to specialised clothing for health and physical education activities.

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EXAMPLE LAYOUT

Example Hub Layout – School Infrastructure NSW, June 2021



Performing Arts Hub *(Specialist Learning Hub)* Secondary School (Large/Stream 12)

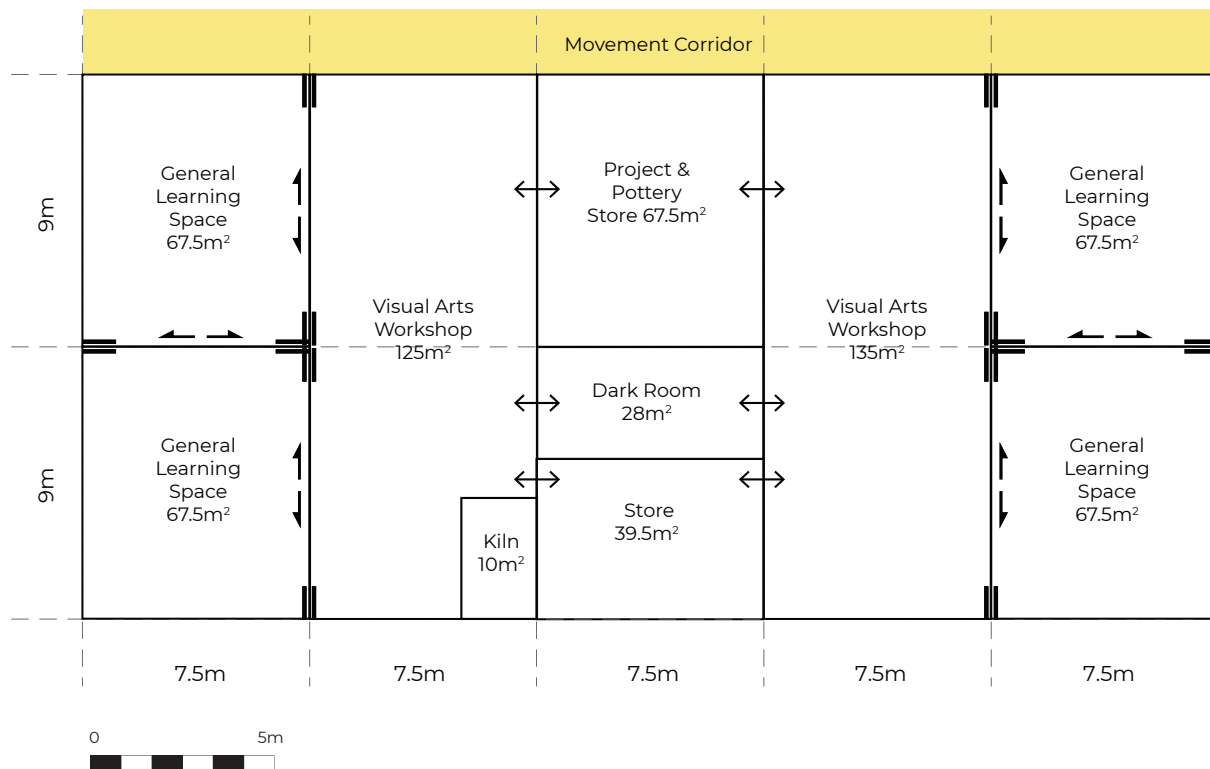
- Multipurpose facilities for health, physical education, dance, drama and music. May be used after school hours for rehearsal and/or shared with the community.
- Direct access and visual connection between the GLSs (theory) and the workshop and seminar spaces (practical) is required. Internal glazing may be appropriate to allow visual surveillance across the hub, as small groups break out to rehearse in different areas. In this learning unit – theory and practice are integrated activities and use of the GLS, workshop and seminar is continuous.
- This learning hub should be located in close proximity to change facilities, as student activities in the workshop and seminar spaces may require a change into specialised clothing.
- The workshop provides a multipurpose learning space equipped for creative and performing arts, to participate in rehearsal and perform in a range of activities including dance, drama or other related activities such as yoga.
- One mirrored wall, a ballet barre, lighting bar at high level, and capacity for performance lighting and sound control systems is required.
- Teachers report safe dance practice requires a sprung timber floor - a WHS provision.
- Storage is required for dance and performance, and more secure storage for musical instruments and technical equipment which are fragile, bulky and high capital cost items.

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EXAMPLE LAYOUT

Example Hub Layout – School Infrastructure NSW, June 2021



Note same layout applies for Secondary School Medium/Stream 9

Visual Arts Hub (Specialist Learning Hub) Secondary School (Large/Stream 12)

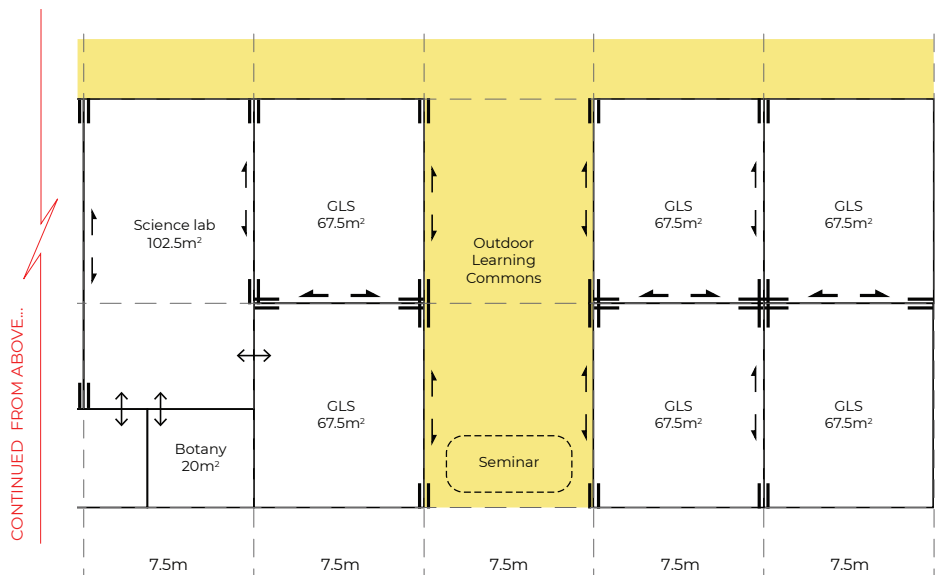
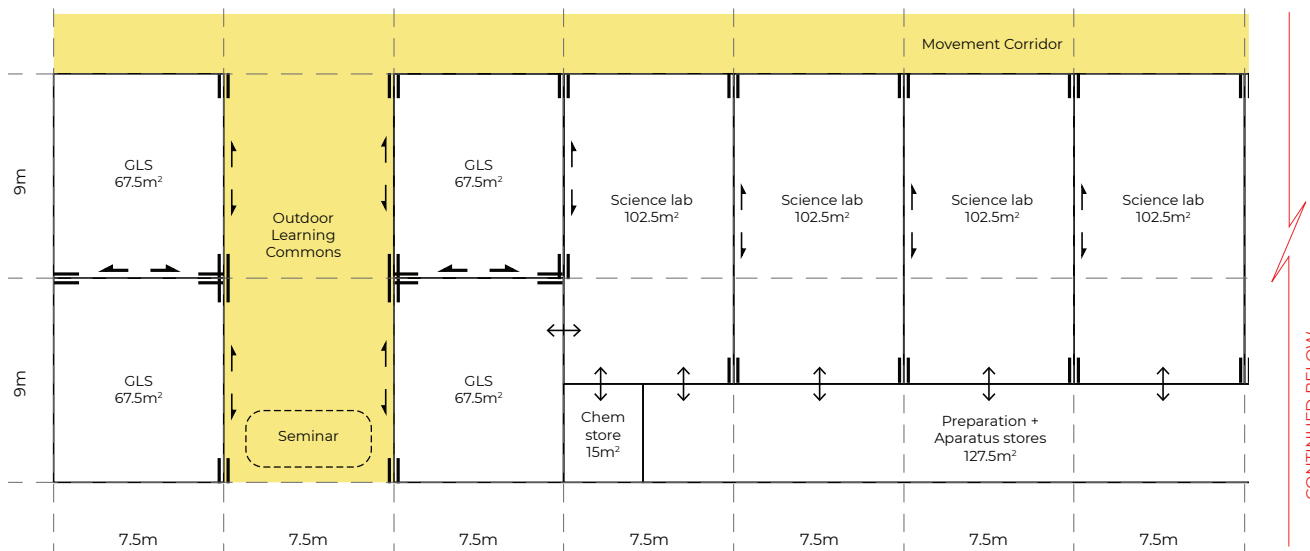
- A place of inspiration to showcase student work.
- Direct access to visual arts workshop from GLS. Connectivity to enable team teaching is desirable.
- A practical maker space directly accessible from the visual arts GLS. Provide flexible capacity for mixed media art making. The capacity to break out to make work in outdoor learning commons or covered outdoor learning area as an alternative is advantageous.
- Art troughs and benching required, and provision for drying of student work.
- Provide opportunities for display of student work.
- High quality of natural light is desirable.
- Dark room (wet) - internal room with light lock. Perimeter benching at standing height sufficient for multiple workstations of enlarger and chemical trays, wet bench with double art trough sink, hanging facility to dry prints. One accessible workstation at adjustable height.
- Digital media dark room (dry) - a secure room for hi-tech processing and printing equipment may be provided as a separate room within the dark room.
- Store to be accessible directly from the workshop with generous shelving and racking for bulk materials storage, art media and protective clothing.
- Project store directly accessible from the workshop. Capacity for drying student work required. Storage of HSC project work in a secure zone within the general project store is desirable.
- Storage for student work in all media includes racks for work to dry, shelving for materials and student work and secure storage for HS senior projects
- Kiln can be gas or electric but not wood fired. May be located with separate external access rather than internally from the workshop.

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EXAMPLE LAYOUT

Example Hub Layout – School Infrastructure NSW, June 2021



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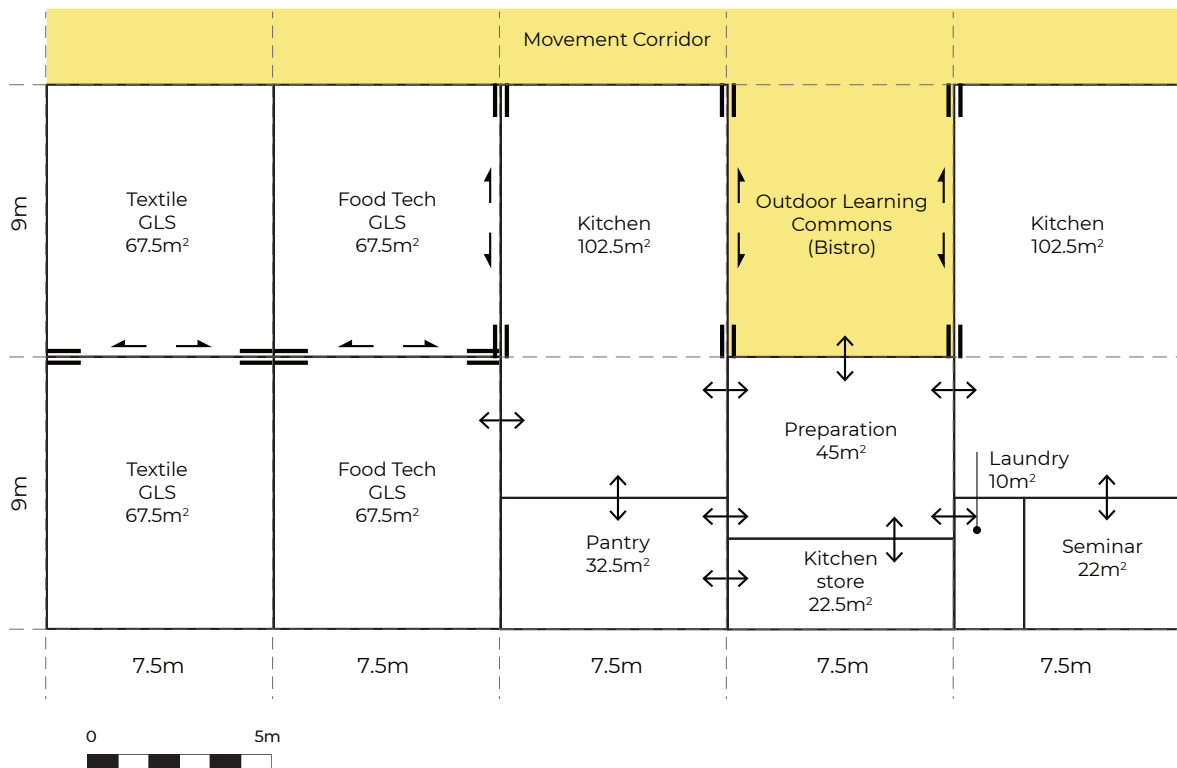


EXAMPLE LAYOUT

Example Hub Layout – School Infrastructure NSW, June 2021

Science Hub (Specialist Learning Hub) Secondary School (Large/Stream 12)

- The science GLS is intended to be used as a theory learning space, adjacent to the science laboratory.
- A science GLS with demonstration bench includes a wet area, with overhead mirror or camera and display, an extension table and sufficient student desks and chairs to enable a class group to be seated.
- The science laboratories are an integral part of the science learning hub for practical teaching and learning. The laboratories are designed to support explore, investigate, create, fabricate, and construct activities.
- Fixed workstations and services are complemented by movable extension tables enabling teachers to develop a variety of working groups. Workbenches, laboratory facilities, sinks, a fume cupboard, and a safety shower are to be provided.
- Direct access between the laboratories and the preparation space is required.
- The science seminar space is a multipurpose 'break out' area, suitable for individual use to medium sized groups.
- The botany/zoology room houses plants and/or animal specimens. Sunlight access is desirable for plant growth.
- The chemical store room is dedicated to the bulk storage of hazardous products.
- The apparatus and equipment store room requires direct access from the preparation room and is fitted out with mobile steel shelving (compactus) for the storage of apparatus and equipment used within the science learning hub. Wet and dry benching should be provided for long term experiments.



Note same layout applies for Secondary School (Medium /Stream 9)

Food + Textiles Hub (Specialist Learning Hub) Secondary School (Large/Stream 12)

- Quality safe working conditions with appropriate furniture settings based on activities.
- The Food Technology and Textile Technology GLS spaces accommodate a demonstration bench within a wet area with overhead mirror or camera and display, an extension table and sufficient student desks and chairs to enable a class group to be seated.
- Sufficient workbench space and storage is required for handling of materials and textile machinery.
- The Food Technology GLS should have direct access to an adjacent Kitchen.
- The Kitchens are hands-on learning spaces with demonstration facilities and work benches. Direct access to the Materials Store, Kitchen Preparation and GLSs is required.
- A bistro/learning commons directly accessible from the food technology spaces provides for a variety of learning settings, experimentation and an appropriate area to consume food prepared in class.
- The Kitchen - Preparation Room is dedicated to the preparation of food and storage of materials to be used in the Kitchen with direct access to the Kitchen and the Pantry. A Servery area is provided.
- The Materials Store is dedicated to the storage of materials and equipment used within the Kitchen. It is essential to be in close proximity to the kitchen(s).
- The Pantry is dedicated to the dry storage of food products and should have direct access to the Preparation Room and be near the Kitchen.
- The Seminar Room is a multipurpose room with desks and chairs for individual to medium sized groups.
- The Laundry is a support space with fixtures and equipment to support the cleaning of clothes and linen. The space should be equipped with a laundry tub, washing machine and dryer.
- Ease of Sanitation and compliance with food handling requirements is required.
- High quality of natural light is desirable with control.

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EXAMPLE LAYOUT

Example Hub Layout – School Infrastructure NSW, June 2021