



# Design Guide Note

## DGN006 – Student Amenities (Design Principles and Example Layouts)

Document version: 1.0

Review and approved by: Technical Standards Steering Committee *on 1 June 2023*

Conditions of approval:

- A twelve-month trial implementation of DGN prior to integrating standard into EFSG.
- Undertake case studies and post occupancy validations to further refine and optimise design principles and hub layout applications.

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## Design Guide Note - Proposed Change

The intent of this DGN is to provide consistent and current design guidance for the layout of student amenities in Public School & High School projects. The present ad-hoc approach to amenities design has led to repeated advice and sub-optimal outcomes. This DGN will help to standardise the design process and improve the quality of student amenities.

The number of student amenities and accessible amenities required in a school design is out of scope for this DGN, however it will be considered in a separate DGN in the future.

The existing design components and hub layouts for schools currently lack detailed guidance for the design of student amenities. This has led to repeated instances of the same design advice being provided to multiple project teams, and the emergence of an ad hoc approach to amenities design.

This DGN seeks to address this issue by providing a standardised set of design guidance that can be distributed to various project teams working on school projects. The DGN provides current and consistent information, which will help to unify the design approach across different project teams and promote better design outcomes for student amenities in schools.

Not implementing the advice outlined in this DGN could lead to poor design outcomes for student amenities in schools, which could negatively impact the students' experience and safety.

Several example layouts included in this DGN have been developed in consultation with various SINSW TSG members. These layouts have already been successfully utilised in some projects, indicating their practical applicability and effectiveness.

Information within this DGN will be consulted further with DoE stakeholders to get feedback on the proposed toilet layouts and design principles. Findings and outcomes of this consultation will be included in the next revision of this DGN and/or EFSG.

**Table 01: Table of change proposals**

No.	EFSG Reference	Current Standard	Proposed Change to Standard	Benefits and Opportunities created by proposed change
1	PS603.01, HS603.01 Student Amenities (Legacy EFSG reference)	Currently the EFSG do not provide this information.	Include Key Design Principles for student amenities	Provide consistent information for design teams.
2	Standard Hub Layouts and Design Components	EFSG website – Design Components.	Include example layouts for Type 1 – Standard male/female toilet blocks	Provide consistent information for design teams. Ensure consistent information within the EFSG website.
3		Currently the EFSG do not provide this information.	Include example layouts for Type 2 - Self-contained “Airline” style amenities	

## Change proposal No. 1, Key design principles on student amenities to be included in EFSG

### Key Design Principles

When designing student amenities/toilets in primary and secondary schools, it is important to balance competing requirements. It is necessary to consider and achieve all required outcomes such as:

#### **Increase safety and supervision opportunities**

- The entrance to toilets should be easy for supervision from common areas, circulation walkways and open play space.
- There should be a direct line of sight to the entrance of toilets.
- There should be no direct line of sight into the toilet cubicle (gaps between doors and wall partitions, floor and ceiling are not permitted)
- For upper-level toilets, access from external circulation corridors are preferred.
- Urinals, whilst optional under Australian Standards, are not included in proposed amenities hub due to privacy, safety and to align with anti-bullying designs. (Note: the refresh of existing projects may face difficulties in complying with the requirements to not install urinals, due to limitations in space)

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### **Consider location of toilets**

- Toilets should be distributed around the school and be grouped in small banks. This should be considered in consultation with SINSW Design and Infrastructure Standards team (DaIS)
- The majority of toilets should be distributed adjacent to the main open space and play areas for use during recess and lunch break times
- For multi-level schools, toilets should be available on every level.
- Amenities are to be stacked where possible.

### **Access to equitable toilet facilities must be provided**

- As a minimum, one accessible student toilet is required to be provided per building, per floor, and at 50% of toilet banks as required under the NCC.
- Ambulant toilets are to be provided in toilet banks as per the requirements of the NCC

### **Access to services zones/rooms**

- Mixing of adults (access to maintenance, cleaning service rooms) and students in a confined and poorly supervised areas (eg. corridors leading to the toilet blocks) is not allowed in schools.

### **Standard Base Specifications (KoP and New-Build)**

- Refer to KoP Standard Specification for standard (non-negotiable) for
  - material specifications and requirements (I.e. Toilet partitions, flooring, etc)
  - all necessary fixtures i.e. soap dispensers, hand dryers, + grabrails etc

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## Change Proposal No. 2: Inclusion of Detailed Diagram and Design Principles for Type 1 – Standard Male/Female Toilet Blocks with partitions

This design option involves toilet cubicles with enclosed full-height toilet partitions and open layout handwashing facilities to enhance supervision and safety. Toilet blocks should be accessible from an external circulation corridor via a security gate, which can be padlocked in an open position. The use of solid core doors is discouraged due to safety and visibility concerns.

### Pros:

1. Maintenance and Cost: This design involves fewer fixtures and fittings, translating into lower upfront costs. However, note that the maintenance costs might be higher according to AMU advice.
2. MMC Volumetric Manufacture: This design is conducive to modern methods of construction (MMC), particularly volumetric manufacture.
3. Expansion at Scale: The design is favourable for expansion at the scale of the block, although it might not be as conducive when compared to the Airline model.

### Cons:

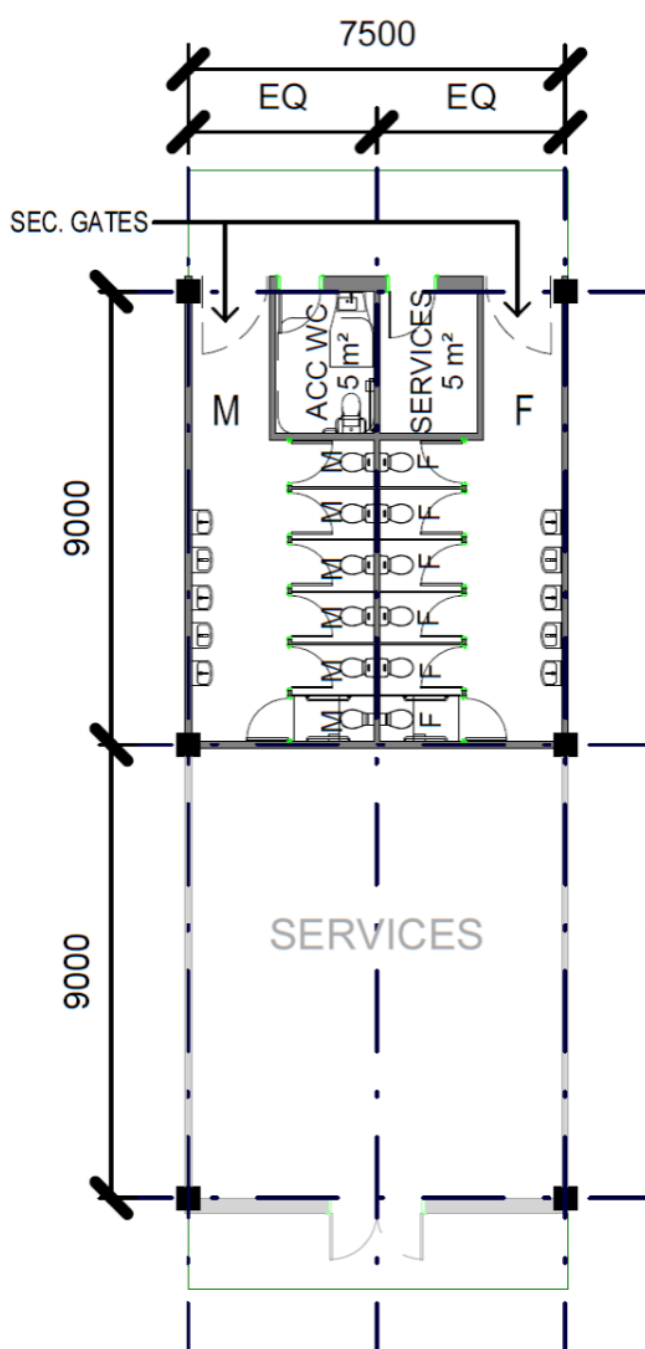
1. Safety and Supervision: The design might present low to no visual surveillance between staff and the internal toilet circulation area, which could potentially create a more conducive environment for bullying. To mitigate this risk, solid doors/walls to vanity areas should be avoided and passive surveillance should be improved by using gates and/or open grille doors and walls to the vanity area.
2. Location: Toilet blocks are often located far from classrooms, making supervision difficult when students need to use the facilities during class. This can be mitigated by distributing Airline-style toilets on upper levels.
3. Privacy: Standard toilet partitions, due to gaps above and below, can compromise privacy as students can create a direct sight line into the cubicle. This can be mitigated by using full-height partitioning and improved detailing.
4. Maintenance and Cost: Partition door hardware is generally more susceptible to damage, adding to the long-term maintenance costs.
5. Hygiene: Partition doors are touched by students prior to washing their hands, posing a potential hygiene risk.

6. Expansion: The design is less conducive to expansion compared to the Airline model, particularly when considering individual toilets.

### Recommendation to Proceed:

The inclusion of a detailed diagram and design principles for Type 1 – Standard Male/Female Toilet Blocks can provide a valuable reference for school design projects.

**Figure 01: Standard design for male and female toilet blocks.**



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## Change Proposal No. 3: Inclusion of Detailed Diagram and Design Principles for Type 2 - Self-Contained “Airline” Style Amenities

This design option includes individual toilet cubicles with all necessary amenities inside the cubicle, enhancing privacy and inclusiveness. Ideally, these toilets should open directly to the external circulation corridor, and dead-end corridors without passive surveillance should be avoided.

Defining a minimum width for self-contained cubicles is essential to ensure compliance with EFSG's handwash basin standards, as well as to guarantee adequate circulation and cleaning access within the cubicle.

### Pros:

1. **Supervision:** This design provides increased visual surveillance of circulation areas in front of cubicles, allowing teachers to utilise these areas for supervision.
2. **Hygiene:** The design allows for handwashing before contact with door hardware. It also offers privacy for students needing to change sanitary products, providing a secure place for handwashing and toileting.
3. **Distribution:** The airline style design facilitates the distribution of toilets throughout the school more easily. For multi-level schools, toilets can be distributed on every level with direct access from external circulation areas.
4. **Flexibility:** Airline-style toilets can be either split Male/Female toilets as per the BCA requirement or Unisex toilets via a performance solution. They offer more flexibility for potential future gender-neutral legislative requirements.
5. **Maintenance:** Singular toilets can be isolated or shut down without impacting others, minimizing maintenance impact.
6. **MMC Volumetric Manufacture:** The design is conducive to modern methods of construction (MMC), particularly volumetric manufacture.
7. **Expansion:** The design is conducive to expansion at the scale of individual toilets.

### Cons:

1. **Safety and Security:** The design poses a potential risk as students, visitors, or intruders can lock or hide themselves inside the toilet. It is also challenging to determine if the cubicle is occupied.



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2. **WHS Risk:** Inward swinging doors can pose a risk if someone collapses against it, making access difficult. However, this risk can be mitigated with good detailing and lift-off hinges.
  3. **Maintenance & Cost:** Additional fixtures and fittings required for operational functionality add to the upfront costs, though long-term maintenance costs might be reduced.
  4. **Design Constraints:** Ambulant toilet doors require 900mm square circulation on either side of the door, making it challenging to accommodate basins within the cubicle and resulting in awkward nooks and cubicle shapes.
  5. **Community Resistance:** There may be community resistance to Unisex toilets, particularly relating to sanitary bins and in schools with high Islamic enrolment.
  6. **Lighting:** Light sensors (PIR light switching) have left young primary students in dark cubicles, not knowing how to switch the light back on.

#### **Recommendation to Proceed:**

Proceeding with this proposal can provide consistent and detailed guidance for designing self-contained "Airline" style amenities in schools. Despite the identified drawbacks, the proposal can still be beneficial if the mitigations and design improvements are considered.

Figure 02: Self-contained “Airline” style amenities – examples 1 & 2

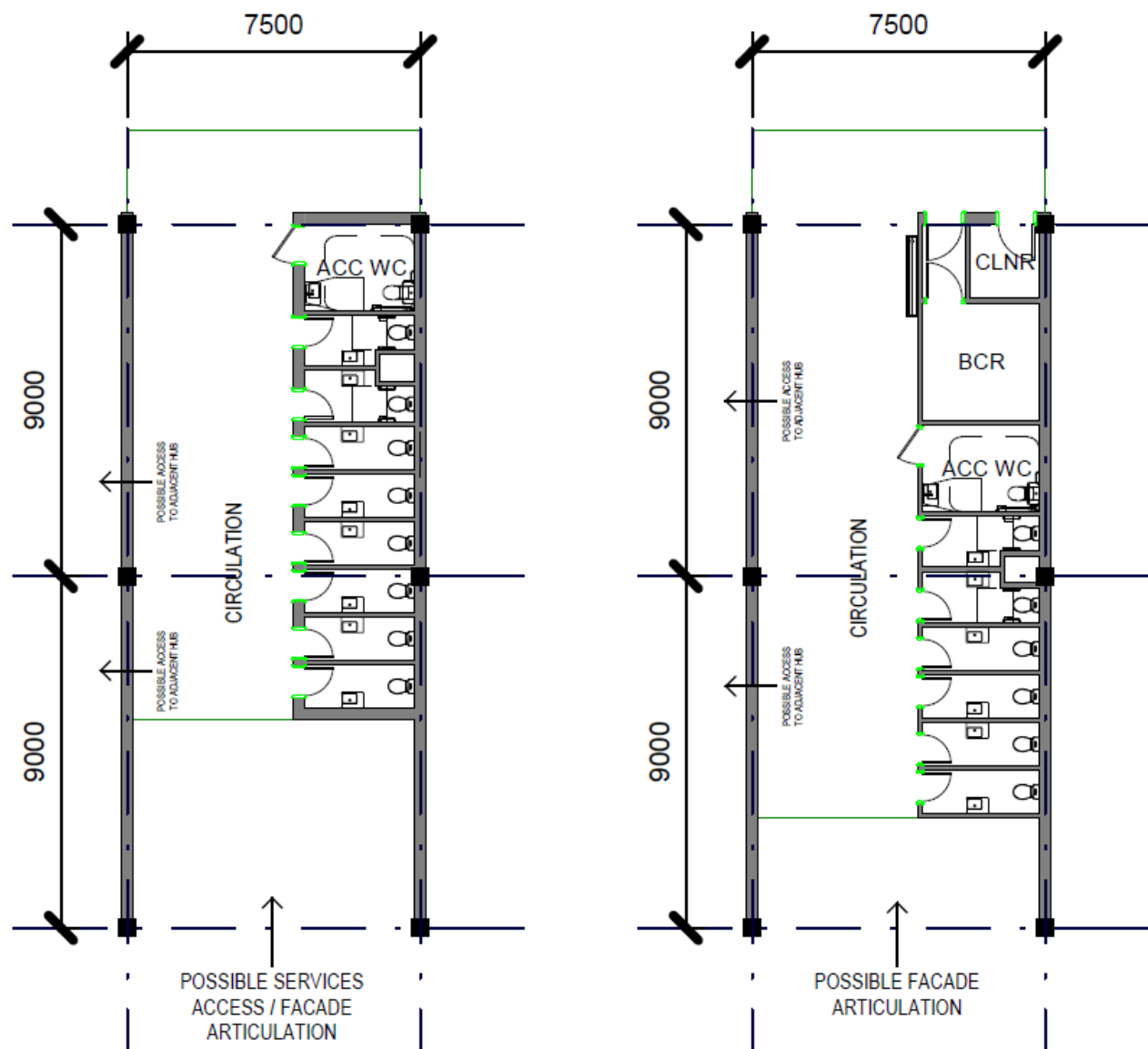
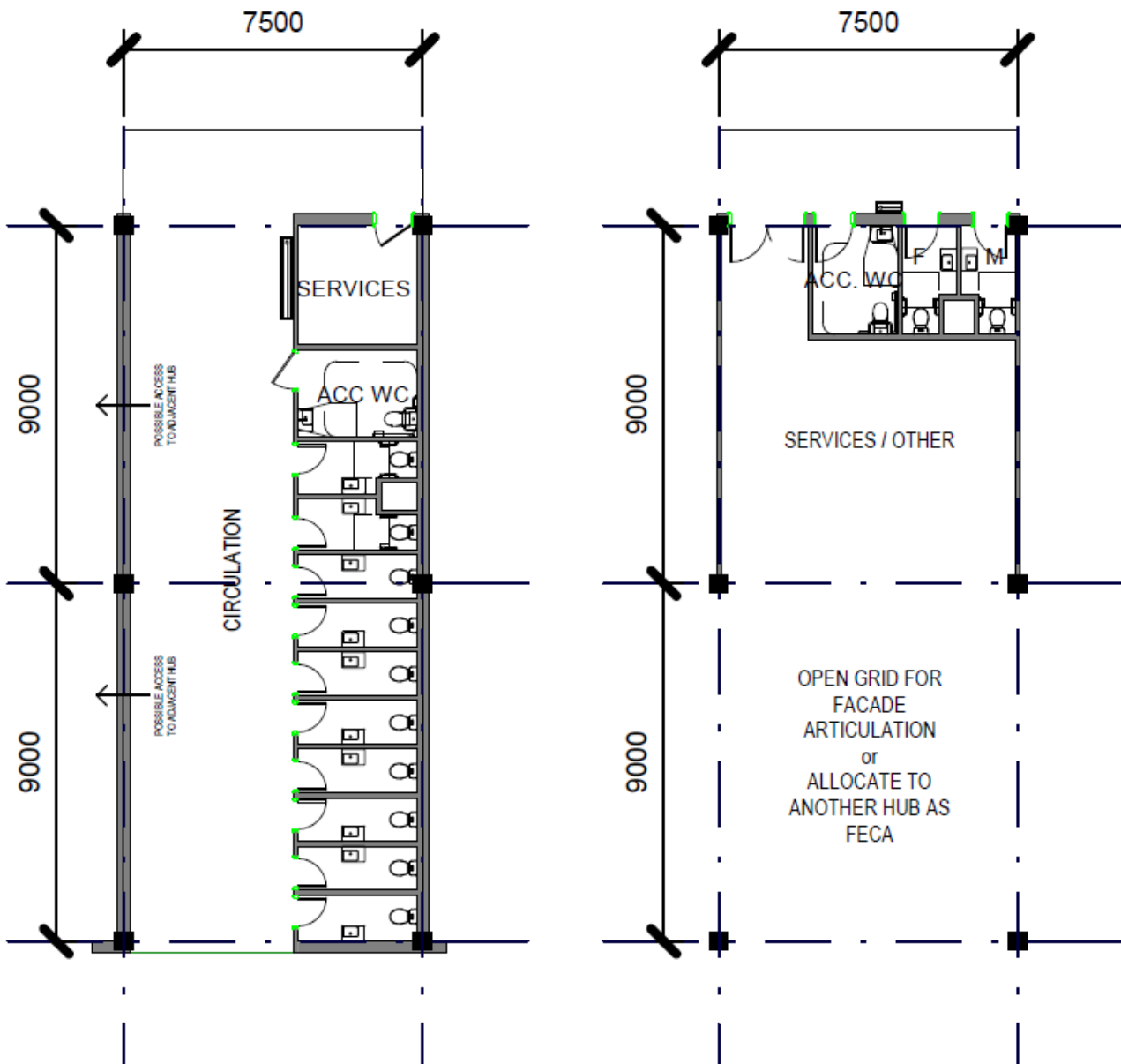
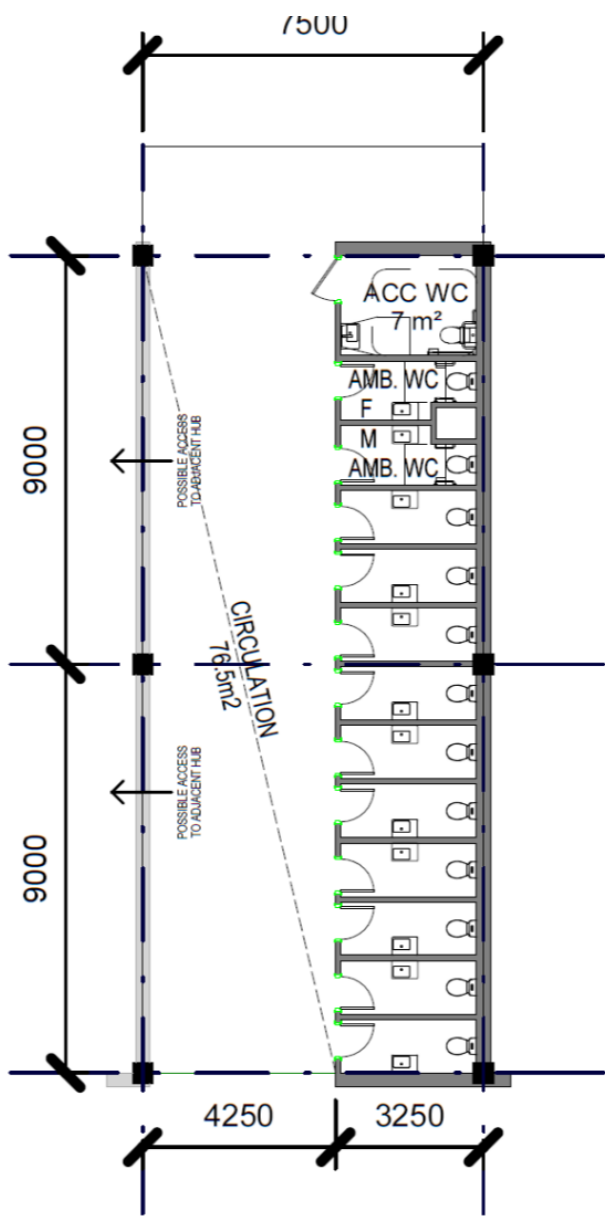


Figure 03: Self-contained “Airline” style amenities – examples 3 & 4



**Figure 04: Self contained “Airline” style amenities – example 5**



*The Design Guide Note provides the details of the proposed changes to Education Facilities Standards and Guidelines (EFSG) and/or design guidance for technical and project teams. If your projects are unable to meet these parameters, then please reach out to the Design and Infrastructure Standards (DaIS) team to assist. The DaIS team can help navigate achievable outcomes whilst informing ongoing development of SINSW projects.*