

What is the appropriate module spacing in Singapore



Overview

We will address and define the terms used for lecture facilities, laboratories, offices and conference rooms, to form a guiding principal for planning.

Key Takeaways

Module spacing in Singapore construction projects is governed by PPVC guidelines, COPIF utility clearances, and relevant Singapore Standards to ensure safety, accessibility, and structural integrity.

PPVC Module Spacing

Prefabricated Prefinished Volumetric Construction (PPVC) involves off-site fabrication of complete volumetric modules, which are then installed on-site. Modules must be spaced and aligned to allow safe installation, crane access, and integration with building services. The Building and Construction Authority (BCA) requires that PPVC modules comply with the prevailing Code of Practice on Buildability, which includes specifications for module dimensions, tolerances, and clearances to ensure structural stability and fitment during assembly.

Typical considerations include: Inter-module gaps to accommodate lifting, alignment, and connection tolerances. Service integration space for electrical, plumbing, and HVAC systems. Access for inspection and maintenance after installation.



Utility and Telecommunication Clearances

The Code of Practice for Info-Communication Facilities in Buildings (COPIF) specifies minimum clearances for underground and overhead services, which indirectly affect module spacing: Telecommunication cables and pipes must maintain a minimum clearance of 150mm from gas or water mains, reducible to 50mm in constrained situations. Single-core power cables (>400V) require a minimum clearance of 460mm, while multi-core power cables (>400V) require 300mm, with concrete separation if less than 150mm is achievable. These clearances ensure modules do not interfere with essential services and allow safe installation and maintenance.

Compliance with Singapore Standards Modules and their spacing must also adhere to Singapore Standards (SS) and technical references administered by Enterprise Singapore, particularly for structural, electrical, and energy storage systems. This ensures: Structural integrity under load and seismic considerations. Electrical safety and proper routing of power and communication lines.

Coordination with other building systems to prevent conflicts.

Practical Implementation

Early contractor involvement is recommended to coordinate module design, spacing, and service integration. Site-specific adjustments may be required for high-rise buildings or complex layouts, as demonstrated in projects like The Clement Canopy, where modules weighing 26–31 tons were installed with precise spacing to ensure safety and efficiency. Regulatory approvals from agencies such as BCA, SCDF, PUB, and URA are mandatory before installation.

In summary, module spacing in Singapore is determined by a combination of PPVC buildability standards, utility clearance requirements under COPIF, and compliance with Singapore Standards, ensuring safety, accessibility, and efficient construction workflow.

Article Content

Grading System

Excluding Elective Modules from Cumulative GPA Computation (with effect from 2024/2025) From academic year 2024/2025, up to two elective modules can be excluded to improve

2018 Space Planning Guidelines_V4

We will address and define the terms used for lecture facilities, laboratories, offices and conference rooms, to form a guiding principal for planning. As the needs of NUS change, these guidelines may

CHAPTER 4

It is important to note that the controlling spaces for the components like doors and windows be maintained as the preferred dimensions. This is to allow the components to be fitted without undue

Transport Infrastructure Specifications and Design Criteria

Land Transport Infrastructure comprises roads, bridges, viaducts, tunnels, stations, depots, interchanges and shelters. The Architectural Design Criteria (ADC) defines the criteria and parameters for the

Prefabricated Prefinished Volumetric Construction (PPVC)

Instead of storing many large PPVC modules on site, Just-In-Time (JIT) installation helps manage limited storage and avoid double handling. Cranes deployed on site must be appropriately

Determining Module Inter-Row Spacing: Updated Guidelines for the

In our original "Determining Module Inter-Row Spacing" article, we examined how optimal inter-row spacing in photovoltaic (PV) systems is critical for maximizing energy production, ensuring

Determining Module Inter-Row Spacing | Greentech Renewables

When designing a PV system that is tilted or ground mounted, determining the appropriate spacing between each row can be troublesome or a downright migraine in the making. However, it is

Building Control Regulations 2003

“alternative solution” means a solution that entails the use of any design, material or method of construction that differs completely or partially from those in the acceptable solution;

Ministry of Education (MOE)

Your source of education-related information and services in Singapore - includes school registration, school information, special educational needs, curriculum and financial matters.

INFECTION PREVENTION AND CONTROL SPECIFICATIONS FOR

It is with pleasure that the National Infection Prevention and Control (NIPC) Committee presents this document to aid in the design of new healthcare buildings. Infection Prevention and Control (IPC)

CHAPTER 4

The appropriate allowances must be given when determining the level of the standard floor slab, the amount will depend on the thickness of the floor screed and the floor finish (Figure 4-9). In the

Transport Infrastructure Specifications and Design Criteria

The Transport Infrastructure Design Criteria and Specifications set out the criteria and requirements for design of Land Transport Infrastructure. Land Transport Infrastructure comprises roads, bridges,

Designing Curriculum

Learning objectives (or learning outcomes), teaching approach and assessment are key components of outcomes-based curriculum. They must be aligned and should not conflict or be mismatched. When

Microsoft Word

1.2 Architectural aims The design shall be appropriate to the local context; simple and clear in plan, section and detail and employ materials and colours suited to the function of the facility. Designers

Issued by the Commissioner of Building Control under Regulation 27

a) Re-numbering of paragraphs in all sections to make it easier for referencing purposes. b) First two paragraphs of each section amended to be consistent with the Fifth Schedule of the Building Control

INFO-COMMUNICATIONS DEVELOPMENT AUTHORITY OF SINGAPORE

Where any space or facility is found to be non-compliant with the Code of Practice for Info-communication Facilities in Buildings during the joint site inspection, such deficiency shall be

Pre-Fabricated Pre-Finished Volumetric Construction (PPVC) For ...

Transportation – as PPVC modules are manufactured and assembled off-site, the modules need to be transported to Singapore (most PPVC suppliers' pre-fab yard is in Johor, Malaysia) for

FIRE SAFETY REQUIREMENTS FOR DETERMINATION OF

Spacing of sprinkler above fire Sprinkler spacing shall be based on SS CP 52 (e.g. 3m by 3m or 4m x 3m). 3.2.4 The capacity of the smoke control system shall also take into consideration the possibility

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This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

