通訊事務管理局辦公室
OFFICE OF THE COMMUNICATIONS AUTHORITY

TRAAC Paper No. 5/2026

Revision of Code of Practice for the Provision of Mobile Access Facilities in Specified Buildings for the Provision of Public Mobile Radiocommunications Services

Telecommunications Regulatory Affairs Advisory Committee
11 August 2026

Background

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The Government has amended section 14 of the Telecommunications Ordinance (Cap. 106)

Applicable to newly built and rebuilt commercial, industrial, residential and hotel buildings with building plans approved **on or after 1 April 2025** ("specified buildings")

Mobile network operators (MNOs) can access reserved space to install and maintain mobile communications facilities without payment of a fee to the land owners concerned

Floor space reserved will be exempted from calculation of gross floor area (GFA)

New government buildings and public housing developments also follow the same arrangement

Promulgation of Requirements

The Communications Authority has promulgated the ***Code of Practice for the Provision of Mobile Access Facilities in Specified Buildings for the Provision of Public Mobile Radiocommunications Services (Mobile CoP)*** in September 2024 to stipulate the minimum standards and requirements of the infrastructure facilities for the installation of mobile communications facilities in specified buildings

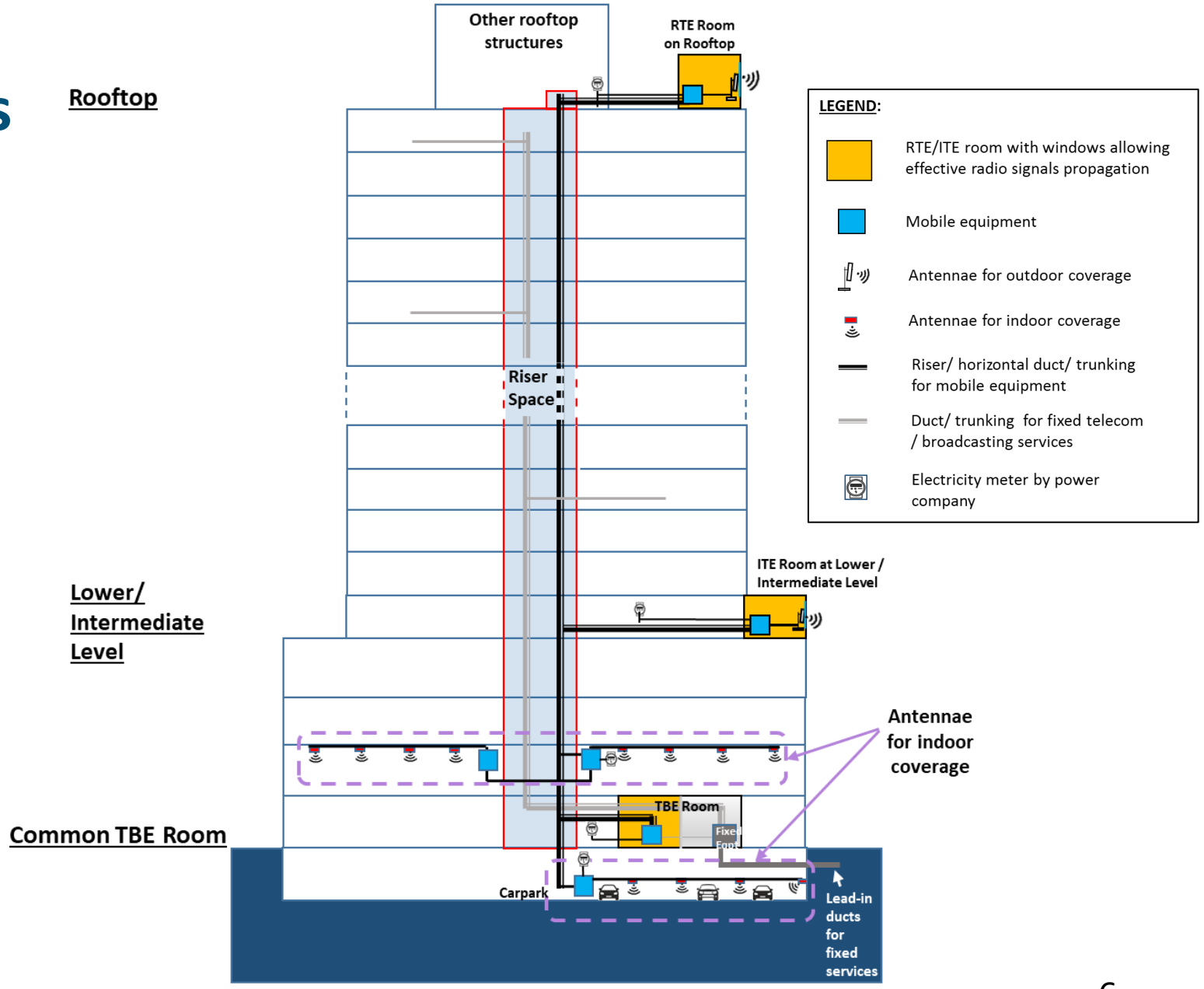
The Building Authority has updated the ***Practice Note for Authorized Persons, Registered Structural Engineers and Registered Geotechnical Engineers on Access Facilities for Telecommunications and Broadcasting Services (PNAP APP-84)*** in September 2024

Functions of Rooftop / Intermediate Telecommunications Equipment Rooms (RTE / ITE Rooms)

Provision of Space and Mobile Access Facilities (MAF)

MAF includes -

- TBE room for MAF
- rooftop telecommunications equipment room (**RTE Room**)
- intermediate telecommunications equipment (**ITE Room**) *(applicable to buildings exceeding 175 m in height)*
- vertical riser

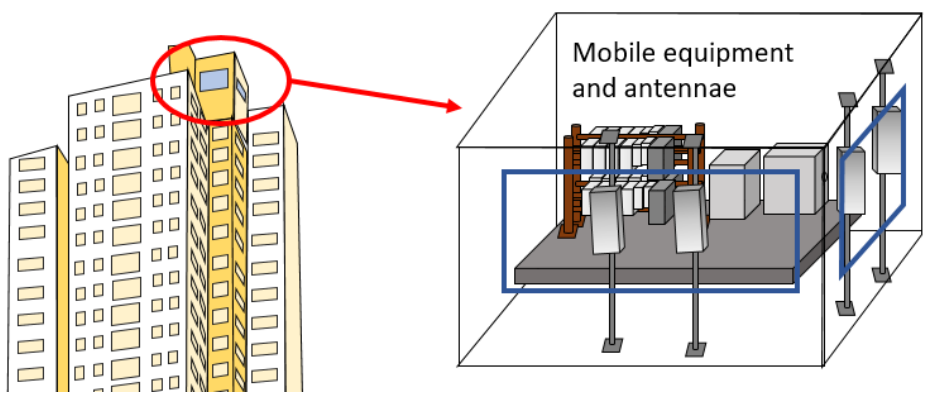


Functions of RTE and ITE Rooms

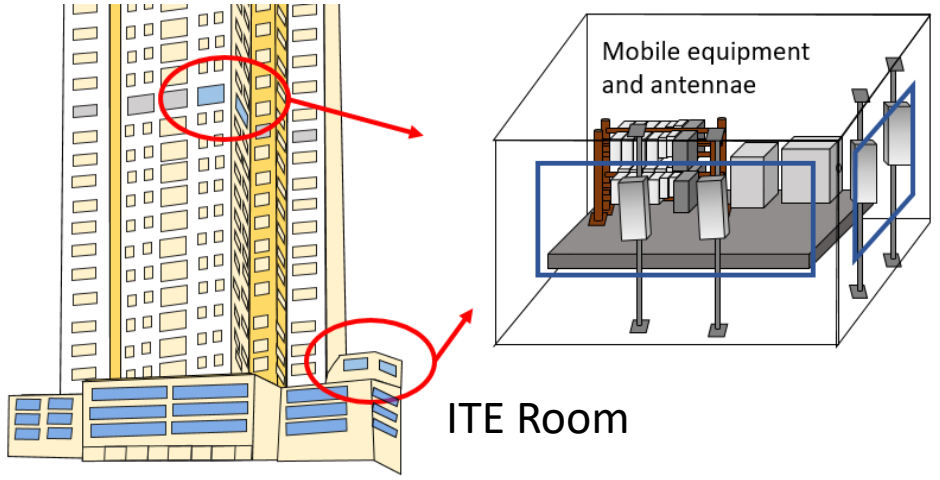
MNOs will make use of the MAF in buildings for the provision of public mobile radiocommunications services

RTE/ITE rooms are designed for housing the mobile communications facilities including radio equipment and antennae for transmission and reception of radio signal

RTE/ITE Rooms should have **fixed opaque windows that allow effective propagation of radio signals** (for example, glass or fibre glass window pane)



RTE Room



ITE Room

Technical Feedbacks on Proposed MAF Design as Observed in General Building Plan (GBP) Submissions

Technical Feedbacks on Proposed MAF Designs as Observed in GBP Submissions

The design of rooftop telecommunications equipment (RTE) rooms may affect the transmission and reception of radio signals and raise radiation safety concerns -

- Problem with design of the RTE Room for MNOs' radio base station (RBS) installations (window size, direction, location, etc.) may adversely affect the propagation of radio signals

- RTE Room design should facilitate compliance with radiation safety requirements by the RBS installed inside

MAF Provisions in GBP Submissions and Concerns

- **Window size is too small:** not enough for MNOs' antenna poles
- **RTE room has a suboptimal orientation:** fails to utilise the space for opening a larger window; it would be better to align the long side of the rectangular RTE room along the edge of building for opening of a larger window or opening more windows
- Window is close to the top of balcony of the floor underneath: **affects radio propagation and raise radiation safety concern**

Proposed Enhanced Requirements

Proposed Requirement of Fixed Opaque Windows in RTE / ITE Rooms

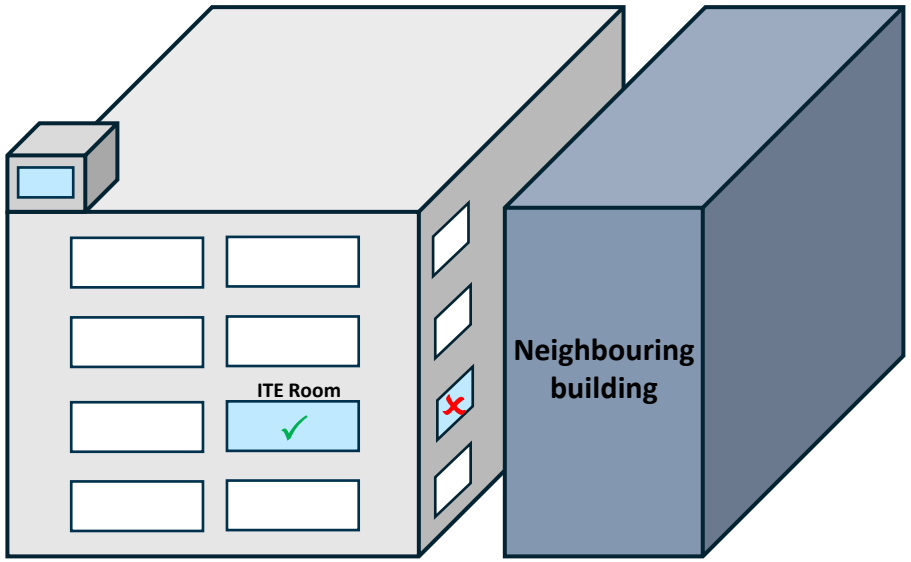
COMMERCIAL AND INDUSTRIAL BUILDINGS			
Usable Floor Space per building, Æ (× 1000 m^2)	3 < Æ ≤ 12	12 < Æ ≤ 72	72 < Æ
RESIDENTIAL BUILDINGS			
No. of flats per building, N	50 < N ≤ 100	100 < N ≤ 500	500 < N
HOTEL BUILDINGS			
No. of hotel rooms per building, N	75 < N ≤ 200	200 < N ≤ 600	600 < N
RTE / ITE Room Requirements			
Min. Area (m^2)	10	15	20
Max. Area may be exempted from GFA (m^2)	20	25	30
Dimension of Fixed Opaque Window(s)			
Height (m)	2	2	2
Width (m) (see Note)	4	6	8

Note: The required width of fixed opaque window(s) for RTE/ITE room specified above can be provided by one or multiple number of windows with an aggregated width at a multiple of 1m.

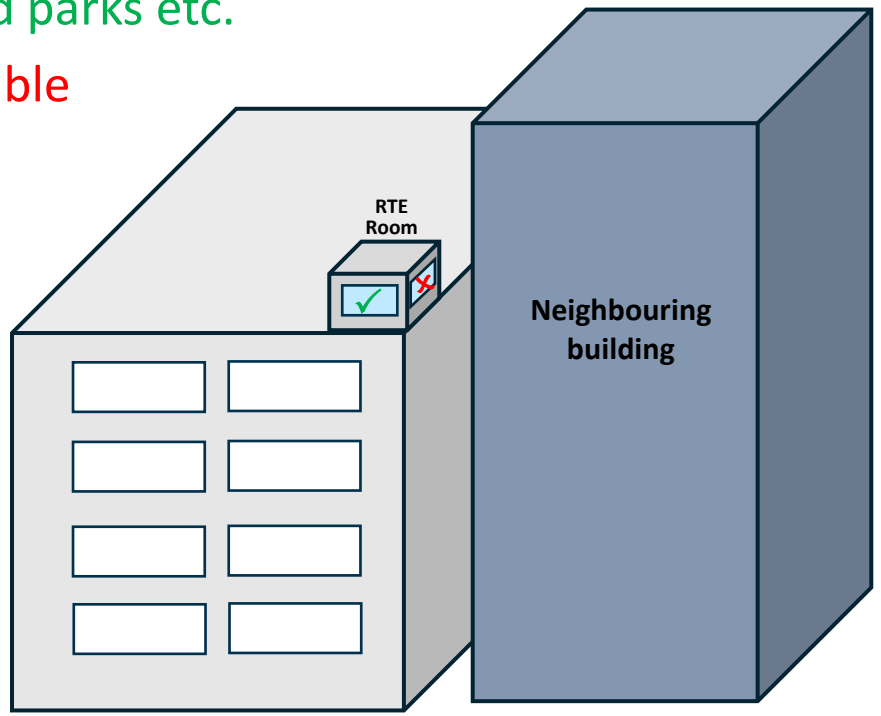
Guiding Principles on Design of RTE/ITE Room (1/2)

(a) RTE / ITE Room (including the window) should allow effective propagation of radio signals

- **Room location:** the RTE/ITE room should preferably be located at appropriate place(s) that can maximise the mobile coverage e.g. the edge of the building
- **Window direction**: the fixed opaque windows should -
  - ✓ Face outside of the building in different directions
  - ✓ Point to open areas covering public streets, roads and parks etc.
  - × Avoid pointing to adjacent buildings as far as practicable



Example of ITE Room and window direction



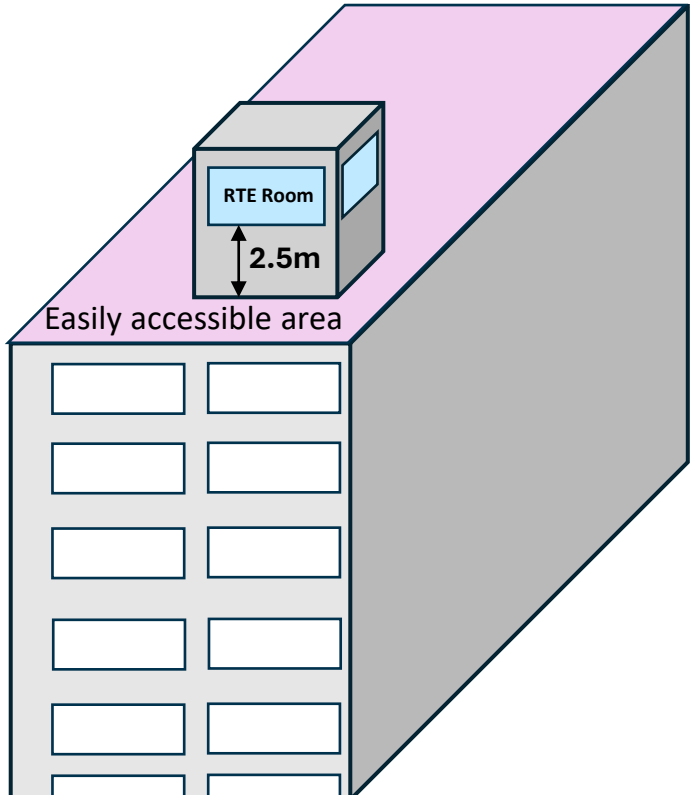
Example of RTE Room and window direction

Guiding Principles on Design of RTE/ITE Room (2/2)

(b) RTE / ITE Room should ensure radiation safety according to Mobile CoP paragraph 5.10 (d)

- Building developers and MNOs should observe the radiation safety requirements as set out in the "*Code of Practice for the Protection of Workers and Members of Public Against Non-Ionising Radiation Hazards from Radio Transmitting Equipment*" ("NIR Safety CoP").

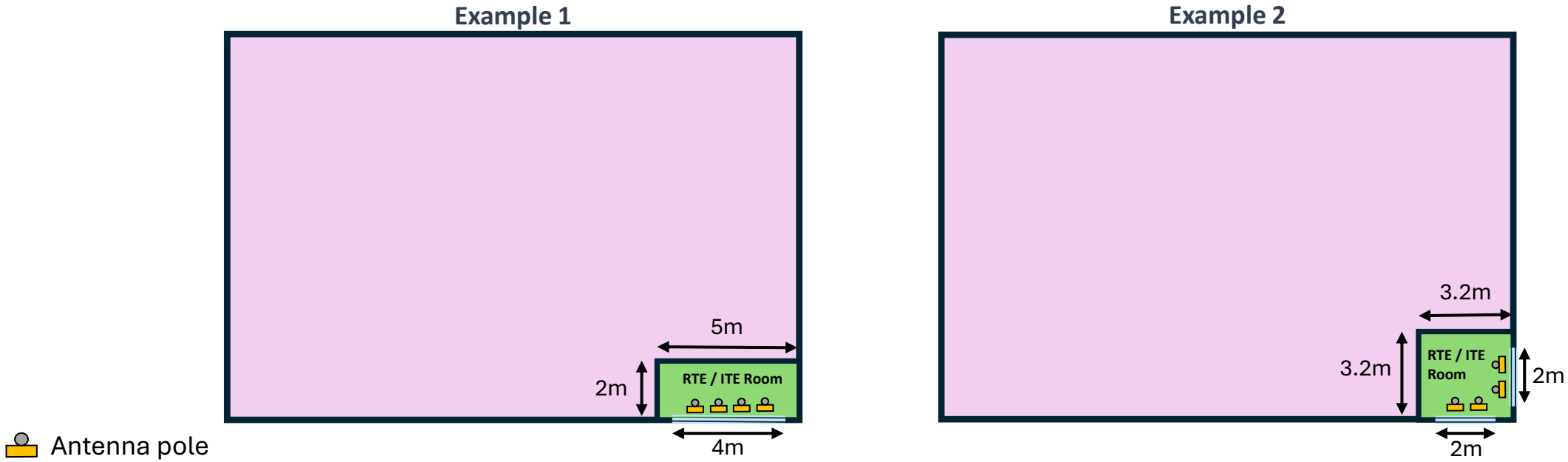
- In particular, Section 5.3 of NIR Safety CoP states that
  - "As far as practicable, the transmitting antennas should be mounted either on towers or poles of suitable height at the edge of the building and facing away from the building."
  - "To ensure that there is no possibility of NIR hazard, the transmitting antennas should be mounted at least 2.5m high in easily accessible areas."



Example of RTE Room (at upper roof) with 2.5m clearance with easily accessible area

Reference Designs of RTE / ITE Rooms (1/4)

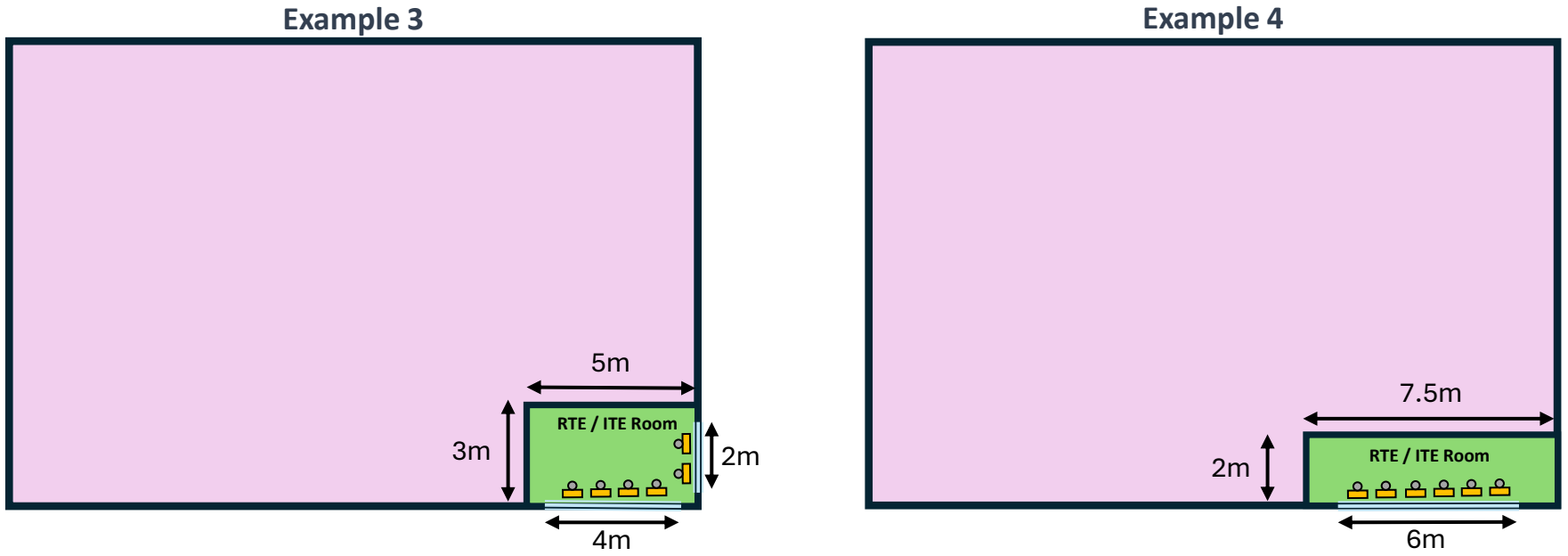
- **Examples of RTE / ITE Room floor layouts with a minimum area of 10m^2** :
  Fixed opaque window with dimension of **2m** minimum height × aggregated width at least **4m** at a multiple of 1m (for propagation of radio signals from antennae mounted on at least four poles, i.e. one pole for each MNO)



Examples of 10 m^2 RTE / ITE Room floor layouts

Reference Designs of RTE / ITE Rooms (2/4)

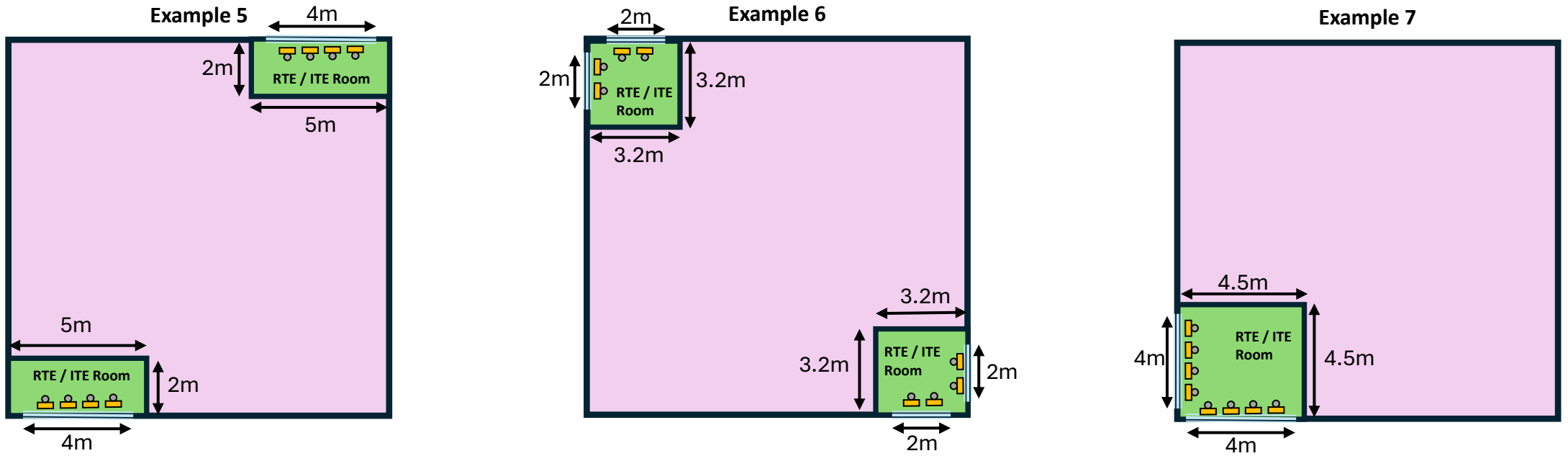
- **Examples of RTE / ITE Room floor layouts with a minimum area of 15m^2** :
  Fixed opaque window with dimension of **2m** minimum height × aggregated width at least **6m** at a multiple of 1m (for propagation of radio signals from antennae mounted on at least six poles, i.e. one pole for each MNO and two poles for sharing / future expansion)



Examples of 15 m^2 RTE / ITE Room floor layouts

Reference Designs of RTE / ITE Rooms (3/4)

- **Examples of RTE / ITE Room floor layouts with a minimum area of 20m^2** :
  Fixed opaque window with dimension of **2m** minimum height × aggregated width at least **8m** at a multiple of 1m (for propagation of radio signals from antennae mounted on at least eight poles, i.e. two poles for each MNO)



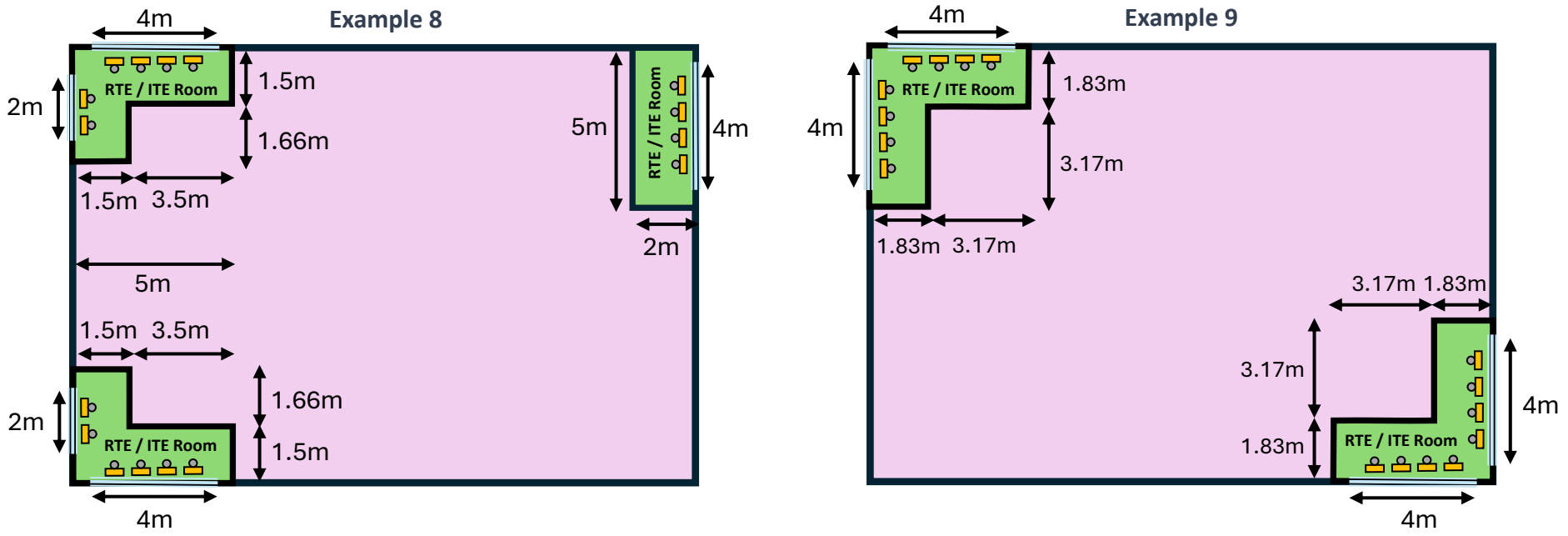
Antenna pole

Examples of 20 m^2 RTE / ITE Room floor layouts

Reference Designs of RTE / ITE Rooms (4/4)

- **Examples of RTE / ITE Room floor layouts with an area of 30m² to house more poles**

  Fixed opaque window with dimension of **2m** minimum height × aggregated width of **16 × 1m** (for propagation of radio signals from antennae mounted on 16 poles, i.e. four poles for each MNO)



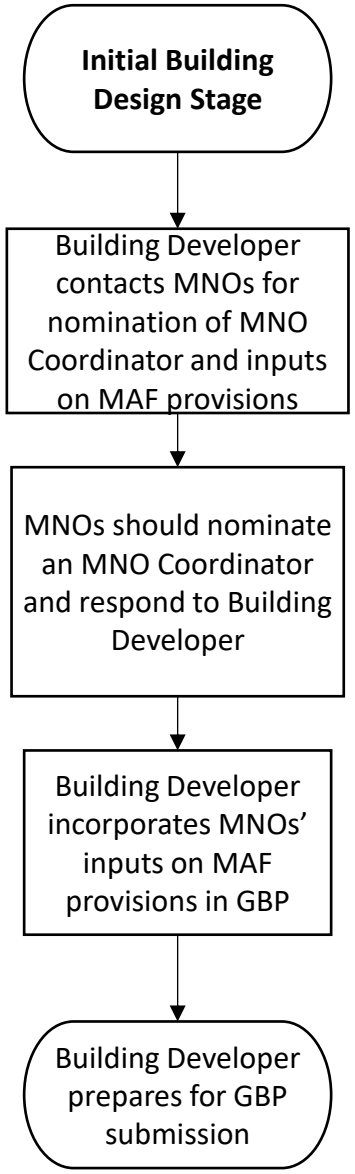
Antenna pole

Examples of 30 m² RTE / ITE Room floor layouts

Engaging MNOs during Initial Building Design Stage

- **Building Developers (and their APs)** should keep MNOs informed of new development projects in a timely manner by providing the relevant information to the MNOs, seek and to the extent possible take into account MNOs' input regarding the locations and design of the MAF structures and include such MAF structures as part of the building plans for approval by the Building Authority

- **MNOs** nominate the MNO Coordinator (on a round-robin basis in accordance with the prior agreed arrangement) and timely respond to the Building Developers regarding inputs on MAF provisions



Actions Taken

- ✓ Consulted MNOs on the enhanced requirements
- ✓ MNOs have already started to follow the enhanced arrangements including nomination of MNO Coordinator and timely provision of inputs to the Building Developers during initial stage
- ✓ Conducted experience sharing session with building industry in June 2026 under the arrangement of Buildings Department (BD) to explain the enhanced requirements
- ✓ MNOs support the enhanced arrangements and there are no specific concerns raised by the building industry

Way Forward

Way Forward

- OFCA and BD will finalise and promulgate the revised Mobile CoP and PNAP APP-84 respectively

- OFCA will continue to work closely with MNOs, building industry and relevant Government departments to ensure smooth implementation of the enhanced requirements

THANK YOU