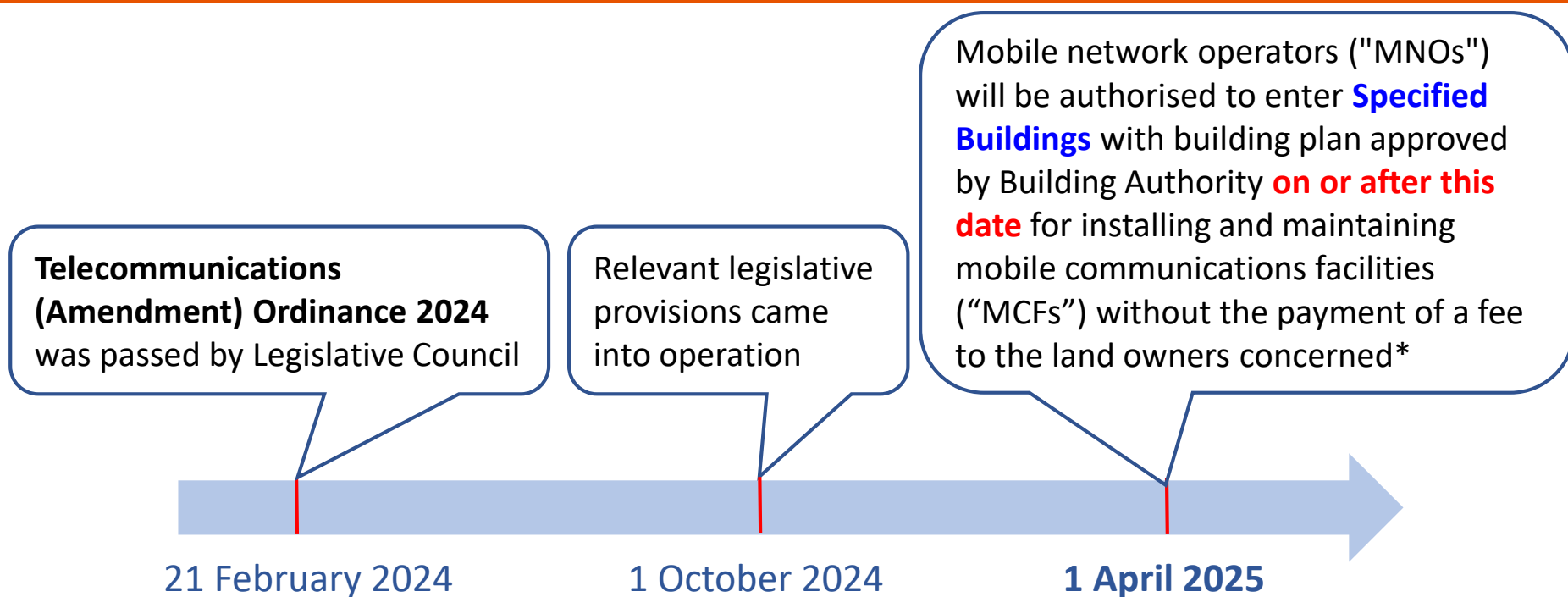


Code of Practice for the Provision of Mobile Access Facilities in Specified Buildings for the Provision of Public Mobile Radiocommunications Services (“Mobile CoP”)

Telecommunications Regulatory Affairs Advisory Committee
4 February 2025



Background



- Specified Buildings covers **new and redeveloped commercial, industrial, residential** (excluding buildings for residence of a single family) **and hotel buildings**

Mobile CoP

- Provides practical guidance to MNOs on the installation, operation and maintenance of MCFs inside Specified Buildings for the provision of mobile services
- Provides guidance to the developers and construction professionals on the appropriate space and associated access facilities that should be made available in Specified Buildings
- Relevant stakeholders have been consulted, including the mobile telecommunications industry, building developers, construction professional bodies and property management industry, as well as relevant Government departments

Major aspects

- (a) Criteria for provision of space and mobile access facilities (“MAFs”) in Specified Buildings
- (b) Technical requirements on the provision of floor space and MAFs
- (c) Provision of indoor mobile coverage
- (d) Obligations of the parties (including MNOs, building developers, building owners, Incorporated Owners / Building Management Offices)

(a) Criteria for Provision of Space and MAFs

Sections 1 to 3 of Mobile CoP

- Specified Buildings meeting specified **size criteria** (“Criteria”) are required to reserve space and provide MAFs :

Building Types	Criteria
Commercial/industrial	<i>> 3 000 m² of usable floor space</i>
Residential	<i>> 50 residential flats</i>
Hotel	<i>> 75 hotel rooms</i>



Provision of Space and MAFs - Multiple-Building Development

No. of Specified Buildings meeting the Criteria

No. of Specified Buildings required to provide space and MAFs

> 0

- only one building in every four Specified Buildings

$= 0$

- at least one Specified Building if there are more than five Specified Buildings in the development

Select tallest building(s) (or those mutually agreed between building developers and MNOs)

Multiple-Building Development Example 1: Some Specified Buildings Meet the Criteria

When no. of Specified Buildings meeting the Criteria > 0:

- Only **one building in every four** Specified Buildings are required to provide space and MAFs.

No. of Specified Buildings:

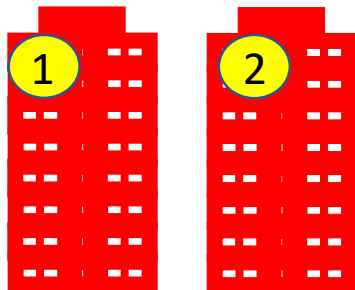
- 7 Residential Buildings
- 1 Shopping Mall

6 buildings meet Criteria
i.e. No. of buildings required to
provide space and MAFs = 2

2 buildings do not meet Criteria

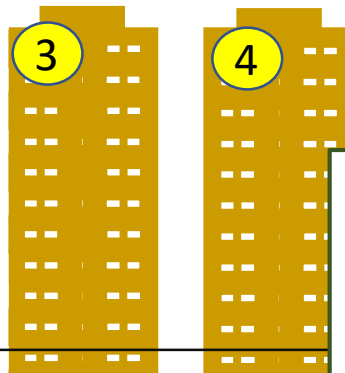
Tower 1
30 flats ≤ 50
⇒ Does not meet Criteria

Tower 2
30 flats ≤ 50
⇒ Does not meet Criteria

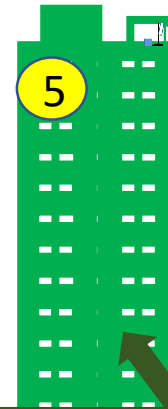


Tower 3
60 flats
⇒ Meets Criteria

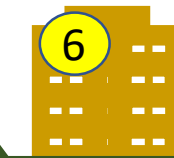
Tower 4
60 flats
⇒ Meets Criteria



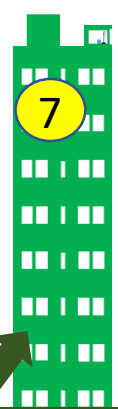
Tower 5
70 flats
⇒ Meets Criteria



Tower 6
60 flats
⇒ Meets Criteria

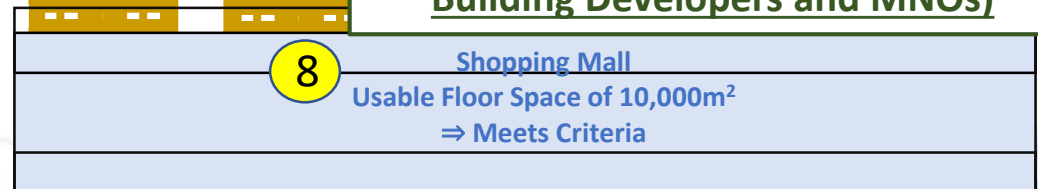


Tower 7
60 flats
⇒ Meets Criteria



2 buildings selected for MAF provision
(either the tallest buildings or the
buildings mutually agreed between
Building Developers and MNOs)

8 Shopping Mall
Usable Floor Space of 10,000m²
⇒ Meets Criteria



Multiple-Building Development Example 2: No Specified Buildings Meet the Criteria

No. of Specified Buildings:

- 5 Residential Blocks
- 1 Shopping Arcade

Not applicable:

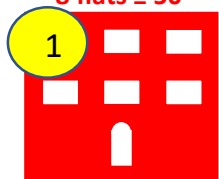
- 3 Single Family Houses

When no. of Specified Buildings meeting the Criteria = 0:

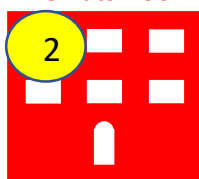
- at least **one** Specified Building has to reserve floor space and provide MAFs if there are more than five Specified Buildings in such new development.

None of the buildings meet Criteria

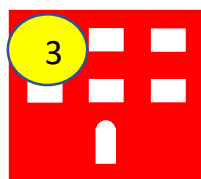
Block 1
BH= 9m
8 flats ≤ 50



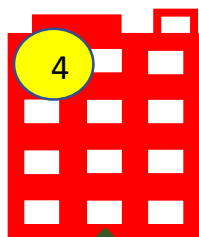
Block 2
BH=9.5m
8 flats ≤ 50



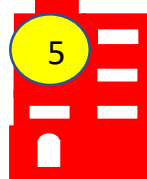
Block 3
BH=9m
6 flats ≤ 50



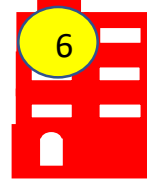
Block 4 (Shopping Arcade)
BH=16m
UFS 1500 m² ≤ 3000



Block 5
BH=11m
6 flats ≤ 50



Block 6
BH=11m
6 flats ≤ 50



Legend : BH = Building height

At least one building selected for MAF provision
(either the tallest building or the building mutually agreed between Building Developers and MNOs)

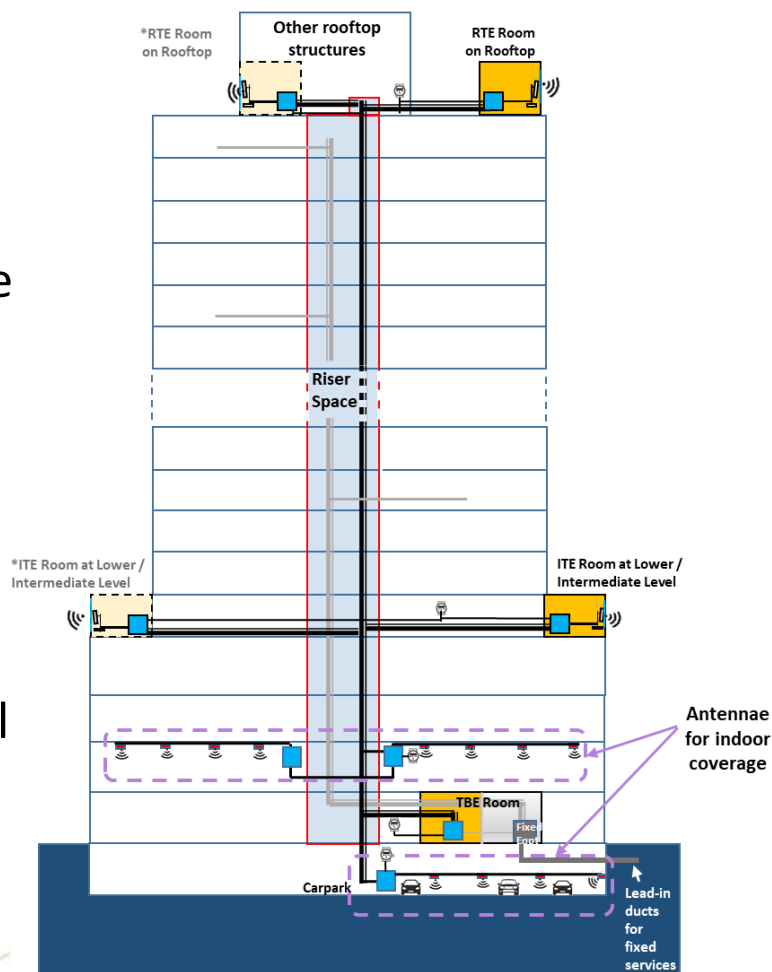
3 Single Family Houses
⇒ Not Applicable



(b) Technical Requirements on the Provision of Floor Space and MAFs

Sections 5 to 9 of Mobile CoP

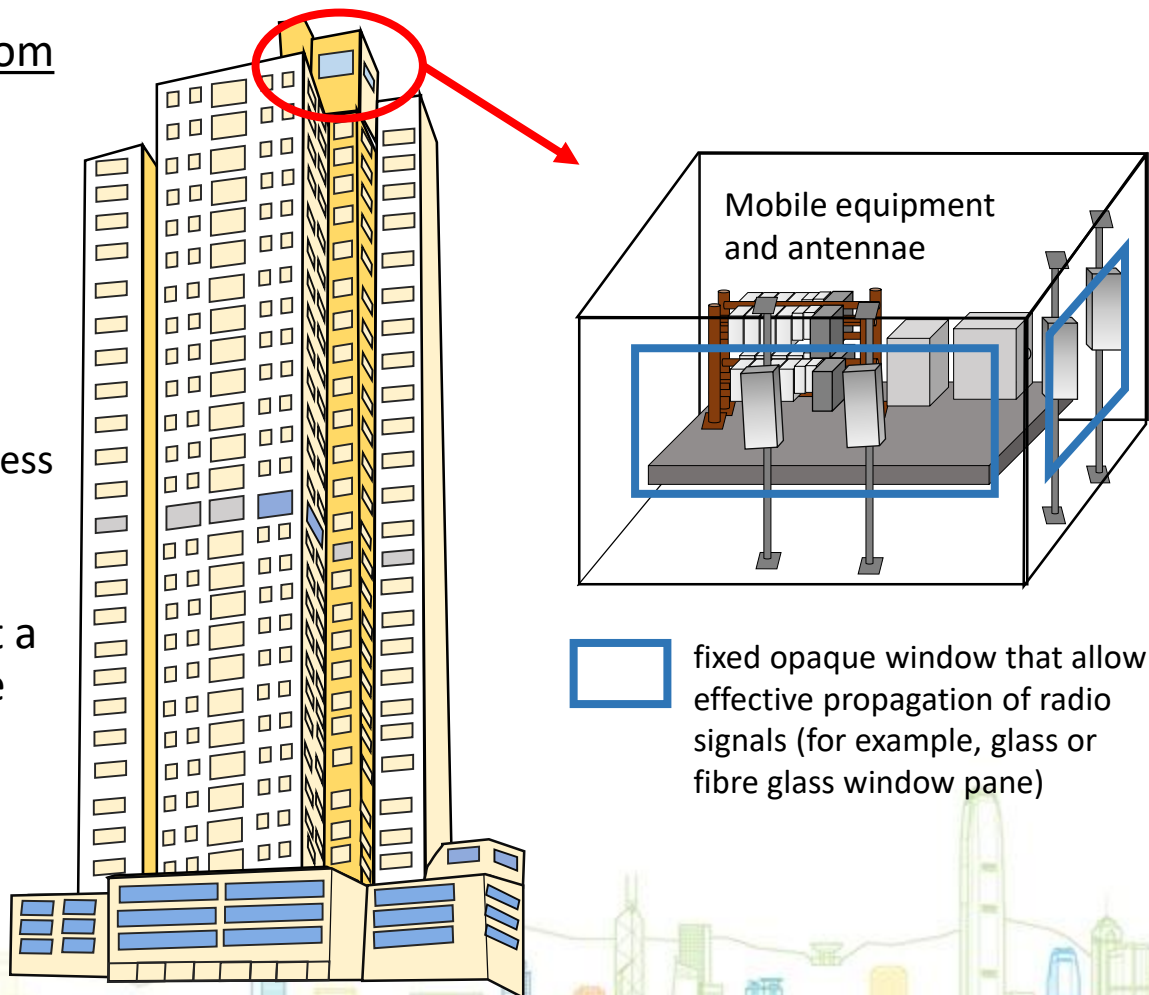
- MAFs should be integrated in the design of Specified Buildings in a **holistic manner**
- 10 – 30 m² of floor space (depending on the size and type) should be made available in each of
 - the rooftop;
 - a lower / intermediate level (applicable to buildings exceeding 175 m in height); and
 - telecommunications and broadcasting equipment (TBE) room
- Other aspects of practical guidance on technical requirements on the provision of space and MAFs are also given



Rooftop Telecommunications Equipment Room (“RTE Room”)

Section 6 of Mobile CoP – RTE Room

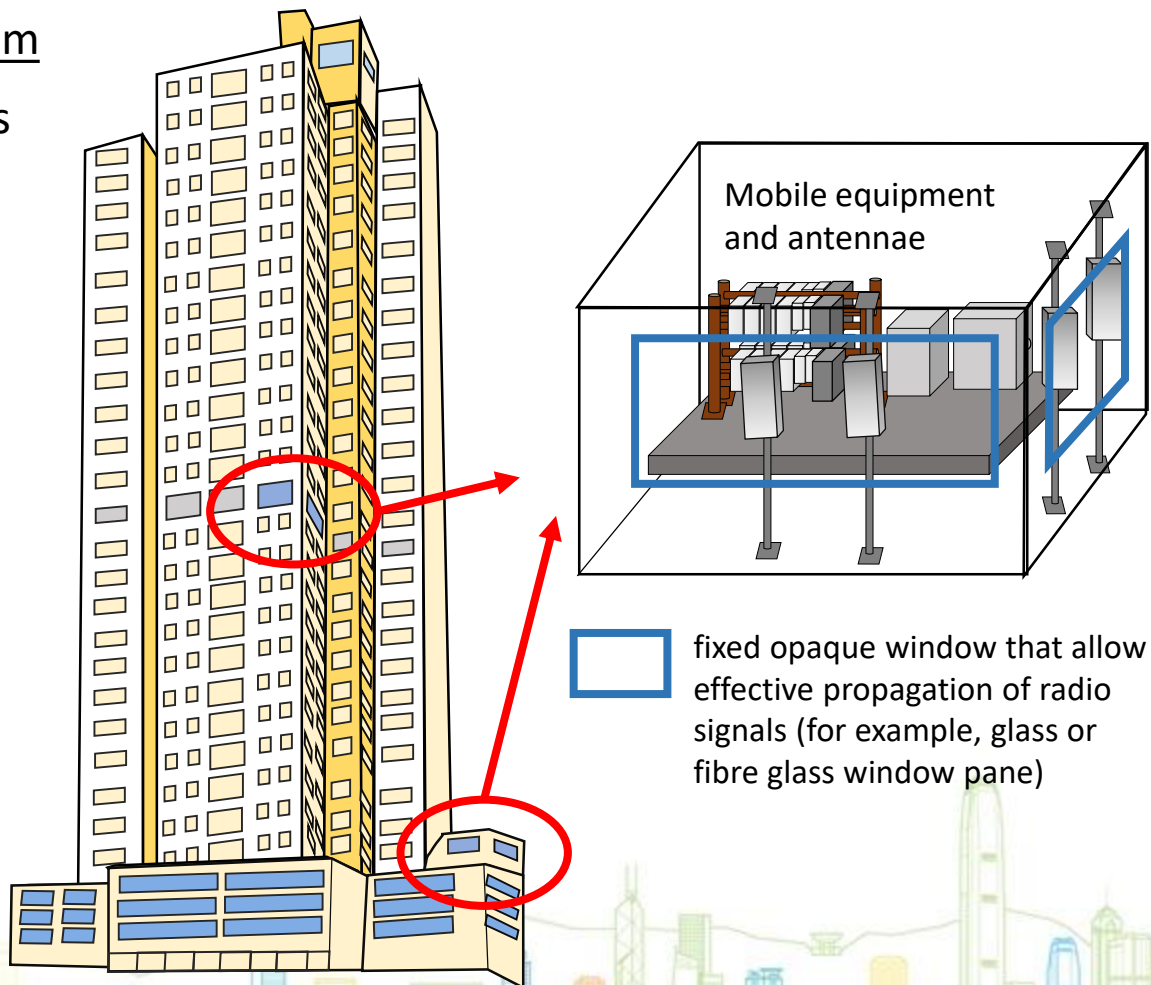
- For MCFs on rooftop
- Integrated in the design of the building
- Room location
 - Maximise mobile coverage
 - Adequate and reasonable access pathways
- In case of genuine difficulty to locate at rooftop, may locate at a level not lower than 90% of the building height



Intermediate Telecommunications Equipment Room (“ITE Room”)

Section 7 of Mobile CoP – ITE Room

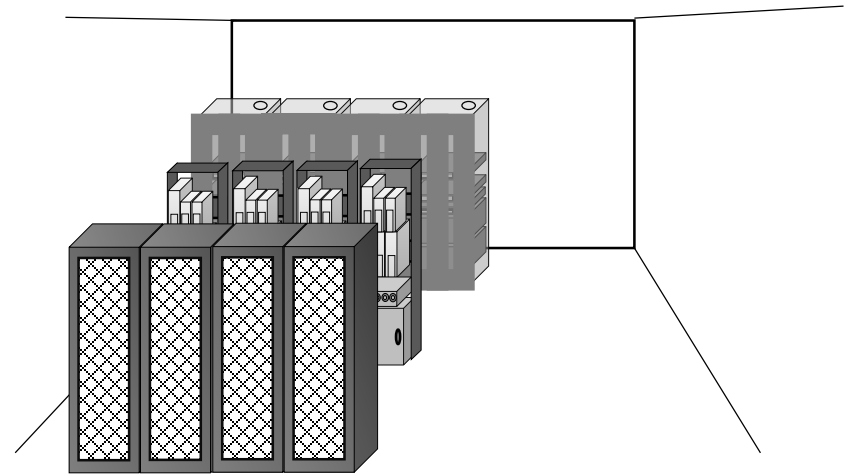
- Required for Specified Buildings with building height exceeding 175m
- For MCFs at a lower or intermediate level
- Room location
 - Maximise mobile coverage
 - Adequate and reasonable access pathways



TBE Room for Provision of MAF

Section 8 of Mobile CoP – TBE Room

- Common TBE Room shared by MNOs and FNOs or separate TBE room for MAFs, for effective use of reserved space and access facilities
- Should put as much mobile equipment as practicable in order to save space and reduce floor loading in RTE room and ITE room
- For common TBE room, building developers should make relevant demarcation (e.g. different colour making on the ground) for respective use by MNOs and FNOs



Mobile equipment installed in equipment racks

- FNOs means *fixed network operators*.

(c) Provision of Indoor Mobile Coverage

Section 10 of Mobile CoP

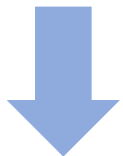
- Mobile CoP provides practical guidance on the arrangements for **provision of indoor mobile coverage** by MNOs in Specified Buildings
- Building Developers
 - should coordinate with MNOs during the building design stage on the requirements of indoor mobile coverage, and provide the necessary space and access facilities for MNOs to install their MCFs
- MNOs
 - should, to the extent that is economically reasonable and technically feasible, provide reasonable indoor coverage to areas of buildings which are not exclusively occupied or used by any person at the request of the Building Developers



(d) Obligations of Building Developers, Building Owners, Incorporated Owners (“IOs”) / Building Management Offices (“BMOs”)

Sections 11 of Mobile CoP

During design phase of Specified Buildings



After completion of Specified Buildings

- **Building developers** should

- coordinate with MNOs on the requirement of MAFs and keep MNOs informed of new development projects in a timely manner
- seek and to the extent possible take into account MNOs’ inputs on MAF structures for including as part of the building plans for BA’s approval
- provide the space and MAFs and reserve adequate and reasonable access pathway

- **Building owners, IO/BMO** should

- allow MNOs’ access to the building concerned for site survey, installation, operation and maintenance of MCFs, including pathway through the common areas of the development for access to the building
- ensure that access to the common areas is not obstructed
- responsible for maintenance and repair of MAFs and access pathways
- endeavour to facilitate a late joining MNO to use the space and MAFs; while extra space or facilities are subject to commercial agreement

(d) Obligations of MNOs

Sections 12 of Mobile CoP

During design phase of Specified Buildings

- **MNOs** should
 - nominate and appoint a coordinator to coordinate all the requirements from the interested MNOs and liaise with the developer on MNOs' MAF requirements
 - make sure the efficient use of reserved space and sharing of MCFs as far as practicable and technically feasible when formulating their MAF requirements

After completion of Specified Buildings

- **MNOs** should
 - be responsible for installation, operation and maintenance of their MCFs
 - upon request of developer / IO/BMO, enter into agreement, undertaking or other instrument to demarcate respective duties and responsibilities, as well as administrative arrangements
 - do as little damage as possible, and full compensation for any physical damage to the Specified Building should be paid by MNO concerned

Resources

Mobile CoP promulgated by CA

- https://www.coms-auth.hk/filemanager/statement/en/upload/663/mobile-cop_e.pdf

OFCA's Webpage on Installation of Mobile Communications Facilities in Specified Buildings

- https://www.ofca.gov.hk/en/industry_focus/infrastructures/mobile_communications_facilities_in_specified_buildings/index.html

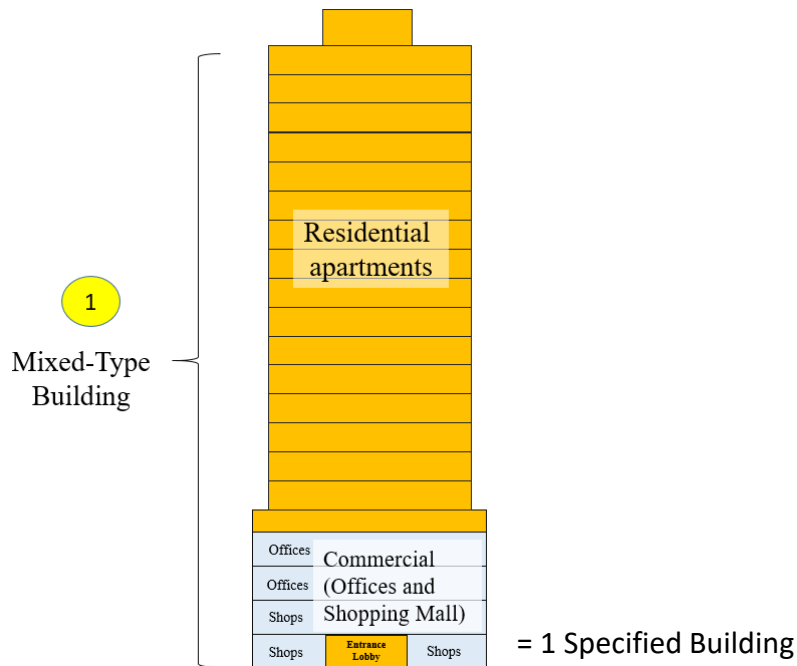
Thank You



Backup Slides

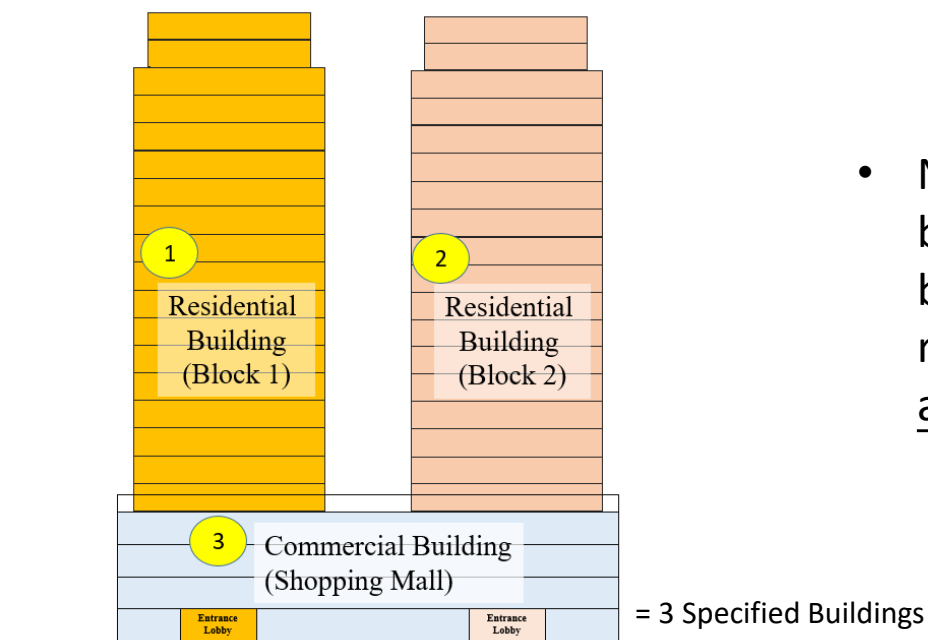


Mixed-type Building



- A single building consisting of mixed uses is referred to as a “mixed-type building”, the building as a whole as one building for assessment
- The requirements corresponding to the type of use of the building that fits the Criteria and would provide the largest space and MAFs should be followed.

Development with Multiple Buildings on Top of Common Base Structure



- New development comprising multiple buildings erected on top of a common base structure, they are each to be regarded as a separate building and to be assessed individually