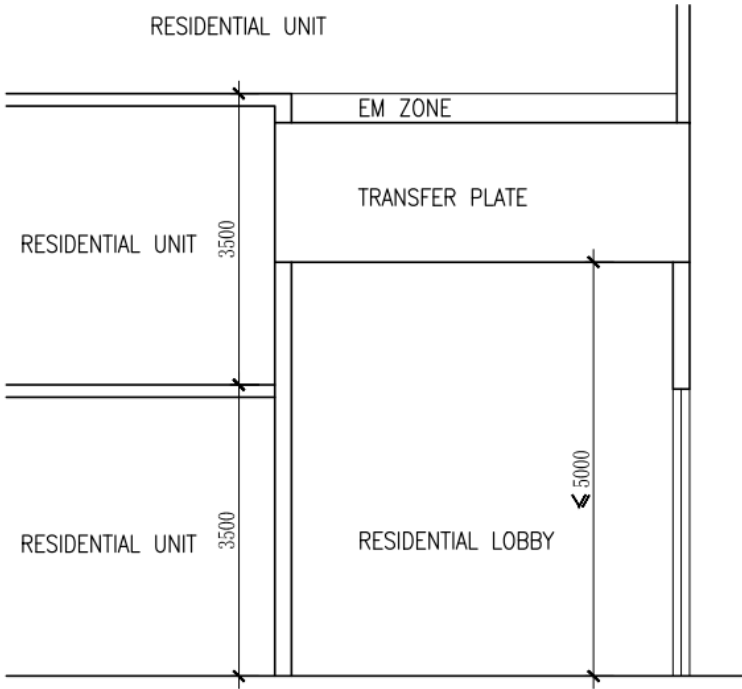


Summary of Items Discussed in 3/2022 APSEC Discussion Forum on 13 May 2022

| | Items proposed by Convenors for Discussion | Summary of Discussion and BD's Response |
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| | Items raised by HKIA | |
| 1. | <p><u>Temporary Scaffolding as Maintenance and Repair Access</u></p> <p>According to paragraph 1.3 in Part 2 of the Code of Practice on Access for External Maintenance 2021 (AfEM Code), “<i>Attention shall be drawn to the design of building projection, building recess and free-form building profile to enable the erection of temporary scaffold in accordance with the Guidelines on the Design and Construction of Bamboo Scaffolds.</i>” Please clarify whether this implies that temporary scaffolding is acceptable for compliance with the maintenance and repair (M&R) access requirements set out in the AfEM Code, in particular for maintenance area located not more than 13 m above the adjacent ground.</p> | <p>BD advised that the compliance with the AfEM Code did not preclude the use of temporary scaffolding for substantial repair. However, M&R access should also cater routine maintenance of the building including cleansing, inspection and local repair / replacement of defective building elements and components, etc. The use of alternative means such as metal scaffold tower should be considered on case basis. The AP should demonstrate to the satisfaction of BD that the proposed M&R access would not be inferior to the deem-to-satisfy provisions stipulated in the AfEM Code. The issue would be further reviewed / deliberated in the Technical Committee on the Code of Practice on Design for Safety – External Maintenance to formulate more guidelines.</p> |
| 2. | <p><u>Void over Main Entrance Lobby of Domestic Building</u></p> <p>For a domestic building with residential units at G/F, it is our understanding that the void over the main entrance lobby located at the same G/F with headroom not more than 5 m can be exempted from gross floor area (GFA) calculations. Attached please find a typical section showing the arrangement.</p> <p>Please confirm our understanding is correct.</p> | <p>BD advised that according to paragraph 2(f) of PNAP APP-2 and paragraph 24 of PNAP APP-42, BD might only consider to grant modification of regulation 23(3)(a) of the Building (Planning) Regulations (B(P)R) to exempt voids over main common entrance lobbies of non-domestic buildings in prestige entrance design from GFA calculations. This was not applicable to void over main entrance lobbies serving domestic building.</p> |

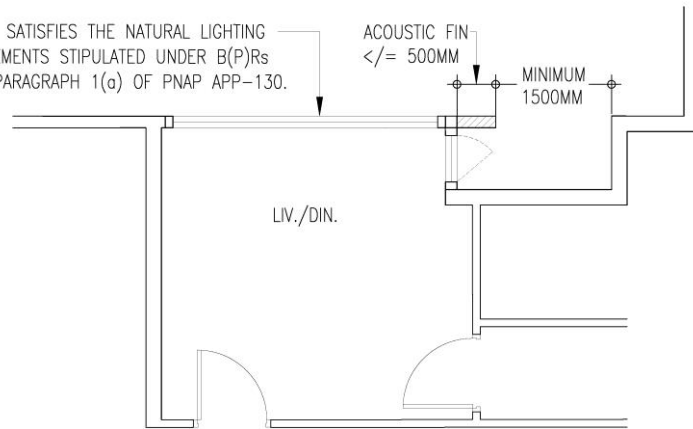
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| |  <p>The diagram is a vertical section of a building. On the left, three residential units are shown, each with a height of 3500 units. To the right of these units is a vertical void. The top part of this void is labeled 'EM ZONE'. Below that is a 'TRANSFER PLATE'. The bottom part of the void is labeled 'RESIDENTIAL LOBBY' and has a height of 5000 units. The drawing uses solid lines for walls and dashed lines for hidden parts of the structure.</p> | <p>The section provided by HKIA was only a partial section so the information was not sufficient. Thus, it could not be considered as a typical section showing the general disposition of domestic building.</p> <p>Taking into consideration of the disposition, layout and design of the domestic building, exemption of voids over residential main entrance lobbies from GFA calculations might be considered on case basis.</p> |
| <p>3.</p> | <p><u>Vertical Greening (VG)</u></p> <p>According to Appendix A to PNAP APP-152, vertical greening has to be <i>“within the primary zone on a vertical surface <u>abutting a street or public pedestrian way/public open space accessible from a street</u>”</i>.</p> <p>Despite the above, it is our understanding that the VG located within the primary zone is also readily acceptable by BD if its location can provide</p> | <p>BD confirmed that HKIA’s understanding was correct. The VG was located in the primary zone and this zone was for providing visual contacts or access from a street through common parts of the building for enhancing the walkability of urban space to the public, visitors or occupiers.</p> |

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| | <p>visual contact with the public, visitors or occupiers of the premises. In other words, the VG is NOT restricted to locations abutting a street, a public pedestrian way or public open space accessible from a street.</p> <p>Please confirm that our understanding is correct.</p> | |
| 4. | <p><u>Building Separation – Projected Building Facade at Low Zone</u></p> <p>Paragraph 2.4 of Appendix B to PNAP APP-152 states that for “<i>the purpose of measuring L_p of a building or a group of buildings along its <u>long side</u>, the part of the building(s) that is within the low zone of a height of not more than 6.67 m may be disregarded.</i>”</p> <p>Paragraph 4.2 of the same Appendix further states that for the assessment of Separating Distance (S) between the ends of the projected building facades and the adjacent site boundaries or centre line of adjoining streets/lanes, the part of the building as mentioned in paragraph 2.4 of the same Appendix can be disregarded. We would like BD to confirm our understanding that this is applicable to the projected building facades at both the long side as well as the short side of the building or the group of buildings for the purpose of assessing S and Permeability (P).</p> | <p>BD confirmed that HKIA’s understanding was correct. Paragraph 2.4 of Appendix B to PNAP APP-152 delineated Design Requirement (1) and it stipulated that when measuring L_p, which must be the long side, the part of the building of a height not more than 6.67 m within the low zone might be disregarded. Paragraph 4.2 of Appendix B to PNAP APP-152 delineated Design Requirement (2) and the part of the building referred to in paragraph 2.4 might be disregarded when assessing the S, irrespective of the projection planes.</p> |
| 5. | <p><u>Natural Ventilation under Performance-based Approach (PNAP APP-130)</u></p> <p>For situation where there is a vertical acoustic fin alongside the external wall for protecting the primary opening from external noise source (such as</p> | <p>BD advised that subject to the requirements stipulated in paragraph 4.1 of Appendix A to PNAP APP-130, Scenario 1 was acceptable.</p> |

traffic noise), we would like BD to confirm that the following 2 scenarios are acceptable to BD:

SCENARIO 1 (ACOUSTIC FIN \leq 500MM)

WINDOW SATISFIES THE NATURAL LIGHTING REQUIREMENTS STIPULATED UNDER B(P)Rs OR IN PARAGRAPH 1(a) OF PNAP APP-130.

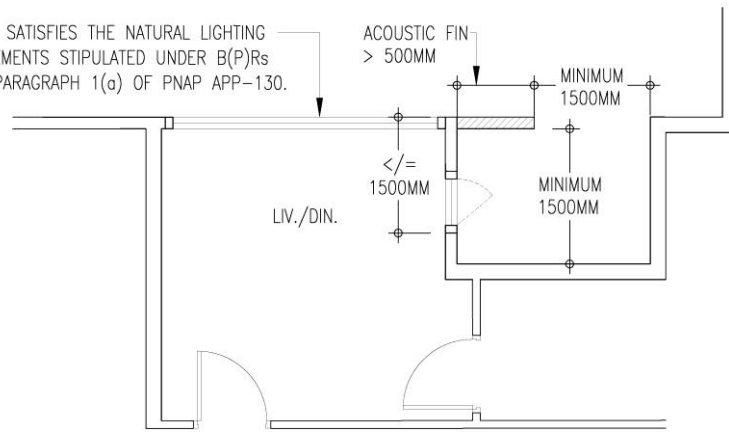


BD also advised that Scenario 2 was acceptable if the proposed length of the projecting feature (i.e. the acoustic fin) was not more than 750 mm.

If the acoustic fin was more than 750 mm, BD would consider the proposal on case basis to ensure that the natural ventilation provided would be sufficient.

SCENARIO 2 (ACOUSTIC FIN > 500MM)

WINDOW SATISFIES THE NATURAL LIGHTING REQUIREMENTS STIPULATED UNDER B(P)Rs OR IN PARAGRAPH 1(a) OF PNAP APP-130.



Items raised by HKIE

6. **Effective Width of Socketed Steel H-Pile for Assessing Reduction of Subgrade Reaction for Pile Group**

It has been a long-accepted practice to take the width of steel H-pile (i.e. 338 mm for 305x305x223 kg/m) as the width of socketed steel H-pile in the direction of bending for the determination of the reduction factor for the coefficient of subgrade reaction for a laterally loaded pile group. The use of the width of steel H-pile for assessing the reduction of subgrade reaction is based on the premise that the structural capacity of socketed steel H-pile is based on the steel section only and the contribution of the grout surround

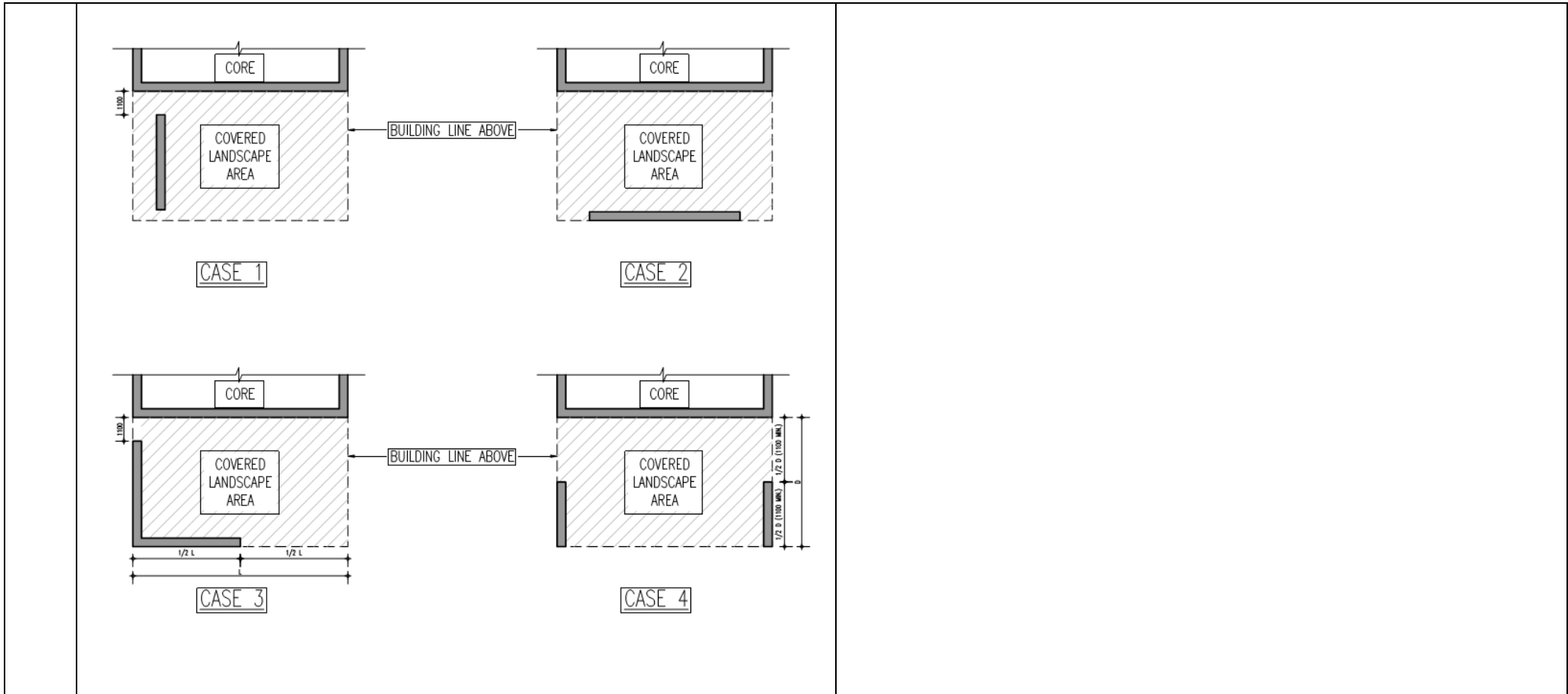
BD confirmed that the corresponding width of steel H-pile section of a socketed steel H-pile could be adopted for the assessment of reduction factor for subgrade reaction in that direction.

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| | <p>is totally ignored.</p> <p>Would BD confirm that the width of socketed steel H-pile for assessing reduction of subgrade reaction in a pile group can be based on the width of the steel H-pile section?</p> | |
| 7. | <p><u>Presumed Allowable Bearing Pressure of Marble Class I or II</u></p> <p>Referring to item 3 of the Amendment to Code of Practice for Foundations 2017 (Foundations Code) (February 2021), it is clarified that Category 2 rock should exclude marble and marble-bearing rock. However, no “presumed allowable bearing pressure” for marble was given. It is suggested making reference to paragraph 5.4.1 of GEO Technical Guidance Note No. 26 (TGN 26) and revising note (12) of Table 2.1 of the Foundations Code as follows:</p> <p>(12) Category 2 rock should exclude marble and marble-bearing rocks. The presumed allowable bearing pressure of Marble Class I or II shall refer to Category 1(b) and 1(c) rock (granite and volcanic) according to the TCR, UCS and PLI_{50} values.</p> <p>Pending further amendment to the relevant clauses of the Foundations Code, would BD consider the above recommendations with reference to GEO TGN 26 acceptable for processing submissions for amendment of foundation works accordingly?</p> | <p>BD advised that the issue would be discussed in the Technical Committee on the Code of Practice for Foundations.</p> |

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| <p>8.</p> | <p><u>Criteria for Fast Track Processing of Simple A&A Submission under PNAP ADM-19</u></p> <p>Paragraph 28 of PNAP ADM-19 states that for simple A&A works, where AP/RSE confirm that the proposed works do not involve the structure of the building and do not affect the fundamental issues mentioned in paragraph 6 and referrals to other Government departments (except FSD) are not necessary, the concurrent applications for fast track approval and consent will be processed within 30 days.</p> <p>Some case officers of BD interpret “do not involve the structure of the building” as “not involving any structural works” and refuse to process the submission under fast-track. For example, an A&A submission involving the erection of a small panel of stone cladding on the external wall of an existing building is not eligible for fast track processing as the erection of stone cladding is regarded as structural works.</p> <p>Would BD give some guidelines on the sorts of submissions that are considered to involve the structure of a building and thus not eligible for fast track processing?</p> | <p>BD advised that the concurrent application for fast track approval and consent would be eligible to A&A works not involving any structural alteration, addition or strengthening works to the existing structural elements.</p> |
| <p>9.</p> | <p><u>Adoption of Code of Practice on Wind Effects in Hong Kong 2019 (Wind Code 2019) for Minor Structures</u></p> <p>According to Circular Letters dated 30 September 2019 and 28 August 2020, BD accepts the adoption of the Code of Practice on Wind Effects in Hong Kong 2004 (Wind Code 2004) for subsequent submissions if the</p> | <p>BD advised that they accepted the adoption of the same Wind Code for the structural works processed under the same BD file reference. Hence, in general, the design of independent minor structures could</p> |

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| | <p>foundation or superstructure plans were submitted before 31 March 2021 and eventually approved by the Building Authority.</p> <p>Would BD please clarify whether the design of independent minor structures such as fence walls, guide houses, pavilion and features etc. can adopt the Wind Code 2004 as that for the main building(s).</p> | <p>adopt the same Wind Code as that for the main building(s).</p> |
| <p>Items raised by AAP</p> | | |
| <p>10.</p> | <p><u>PNAP APP-132 – Site Coverage and Open Space Provision</u></p> <p>Paragraph 3(d) of PNAP APP-132 states that in considering applications for site coverage to exceed the limit laid down in the B(P)R using the “setback approach”, the BA will favourably consider the application if “<i>the setback area is properly landscaped and/or paved and open, uncovered and without any permanent building structures other than the landscaped features and perforated boundary walls</i>”.</p> <p>In this regard, please clarify if the thickness of vertical green is considered acceptable as the landscaped features located within / projected over the setback area.</p> | <p>BD advised that vertical green which would contribute to improving street environment was acceptable to be provided at the setback area under PNAP APP-132. For metal supporting frames for growing of plants projecting not more than 300 mm from the external walls within lot boundary, site coverage (SC) and plot ratio were not accountable in accordance with paragraph 3(n) of PNAP APP-19. For other types of vertical green of reasonable height with overall thickness of the system not more than 300 mm, BD might favourably consider to grant modification of regulations 20 and 23(3)(a) of B(P)R to exempt from SC and GFA.</p> |
| <p>11.</p> | <p><u>Covered Landscaped Area</u></p> <p>(i) Paragraph 7 of PNAP APP-104 states that open-sided covered landscaped areas/children play areas provided under the footprint of the domestic tower would not be subject to the limitation in Table 1 (i.e. sliding scale of GFA concession for recreational facilities), but should</p> | <p>(i) BD confirmed that AAP’s understanding was correct.</p> <p>(ii) BD advised that according to paragraph 26 of PNAP APP-42, covered landscaped areas/children play areas should be open in</p> |

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| <p>be within 5% of the total domestic GFA, details as stated under PNAP APP-42 and subject to compliance with the pre-requisites stipulated in PNAP APP-151 on Building Design to Foster a Quality and Sustainable Built Environment.</p> <p>To our understanding, the above GFA concessions for open-sided covered landscaped area can be applied for:-</p> <p><u>Scenario 1</u> – covered landscaped area only accessible from recreational facilities (with GFA concession under PNAP APP-104);</p> <p><u>Scenario 2</u> – covered landscaped area accessible from both recreational facilities (with GFA concession under PNAP APP-104) and other common area of the building.</p> <p>Please advise if our understanding is correct.</p> <p>(ii) To our understanding, the following scenarios are eligible for GFA concessions for open-sided covered landscaped area. Please advise if our understanding is correct:-</p> | <p>design and not encumbered with structural elements. Therefore, covered landscaped area would be acceptable if it was open-sided and abuse was unlikely. Cases 1 to 4 were generally acceptable.</p> |
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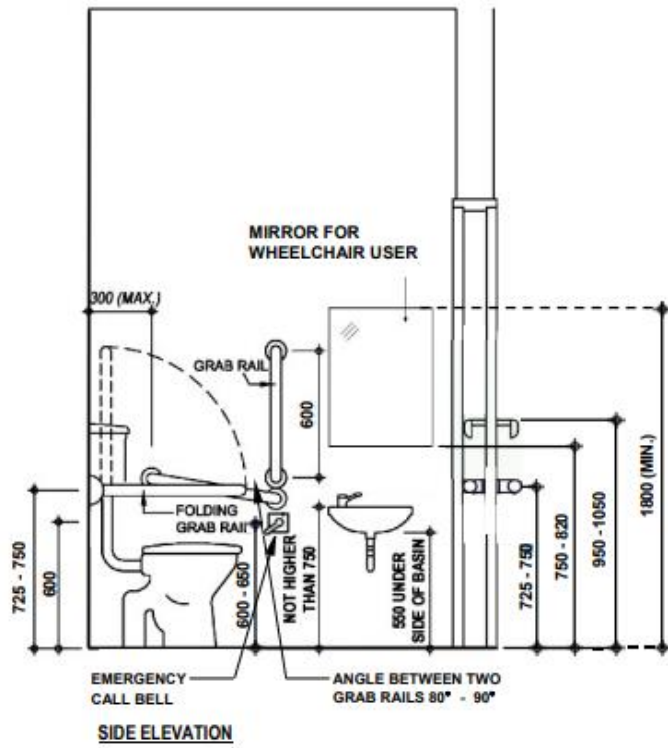


12. **Cast-in Anchor for AC Platform**

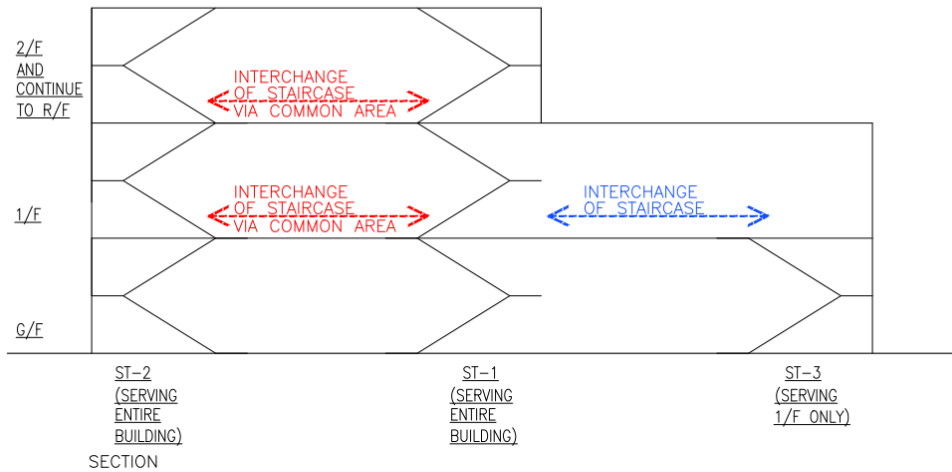
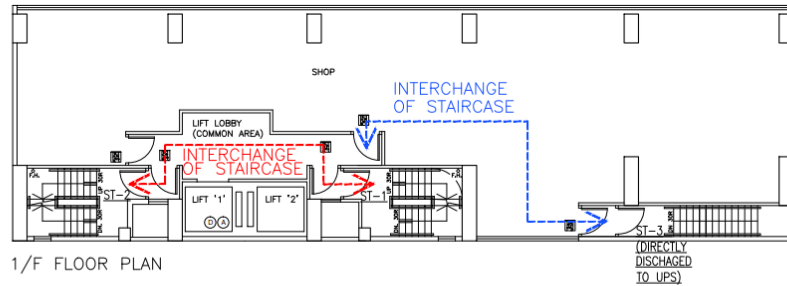
According to the diagram under Appendix G to the AfEM Code, it is stipulated that the cast-in anchors should be installed at pre-determined locations before casting of the supporting structural elements. The anchor bars should be of Grade B500 stainless steel, complying with BS 6744:2016 and designation number 1.4436, or of equivalent standard, with a minimum diameter of 16 mm, OR be designed to sustain the load test as required for

BD advised that according to paragraph 6 in Appendix C of the AfEM Code, the design and location of the cast-in anchors should be shown on the general building plans and structural plans for approval. Drill-in anchors might be acceptable provided that the design loading and structural design comply with the relevant codes of practice and/or international standards achieving the performance requirements.

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| | <p>“Type A” anchor device in BS EN 795:2012. Based on our understanding, drill-in anchors for harnessing the fall arrest device (such as the safety eyebolt) which are compatible with “Type A” anchor devices in BS EN 795:2012, are also acceptable as an alternative to cast-in anchors. Please confirm whether our understanding is correct.</p> | <p>Conditions on testing requirements might be imposed on approval of relevant plans.</p> <p>BD also reminded that the Guidance Notes on Classification and Use of Safety Belts and their Anchorage System issued by the Labour Department should be observed.</p> |
| <p>13.</p> | <p><u>Folding Grab Rail in Accessible Lavatories</u></p> <p>As required in paragraph 53 of the Design Manual: Barrier Free Access 2008 (2021 Edition) (DM:BFA), a folding grab rail has to be installed on the wide side of the cubicle adjacent to the water closet at a height between 725 mm and 750 mm above the finished floor level, when lowered from the wall. Our understanding is that the height shall be measured from the finished floor level to the centre of the grab rail, as shown in the below diagram extracted from Figure 24 of the DM:BFA.</p> <p>However, we have encountered some cases that the said measurement shall be taken from the finished floor level to the top of the grab rail. Would BD please clarify the principle of measurement?</p> <p>Also, the model of folding grab bar commonly available on the market is in U-shape, with two grab rails as shown in the picture below. We would like to know if the measurement shall be taken from the top or bottom rail.</p> | <p>BD advised that the height should be measured from the finished floor level to the centre of the folding grab rail when lowered from the wall, as shown on Figure 24 of the DM:BFA.</p> <p>If U-shaped folding grab bar was adopted, the measurement should be taken to the centre of the top rail.</p> |



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| <p>14.</p> | <p><u>Staircase Interchange</u></p> <p>With reference to Clause B8.2 of the Code of Practice for Fire Safety in Buildings 2011 (FS Code), “<i>Where two or more required staircases are needed, people using one required staircase should be able to gain access to at least one other required staircase at any time, without having to pass through other person’s private premises.</i>” To our understanding, if such staircase (ST-3 in the diagrammatic floor plan below) solely serves the entire occupancy of that floor, for example at 1/F, there is no need to designate a common area, at that floor, for interchange of the subject staircase to any other staircases, as indicated in blue dotted line below.</p> | <p>BD advised that the requirement under Clause B8.2 of the FS Code on access between required staircases would be applicable to all types of buildings and except for shopping arcade situations, passages physically separated from the remainder of the building should be provided as access between the required staircases, and whether fire resisting rating being required for such separations would be governed by Subsection C7 of the FS Code. Such internal common corridor or passage for interchange between required staircases should be shown on the respective floor plans as “common part”.</p> <p>Noting that the staircase ST-3 solely served the single occupancy of the first floor, BD advised that it would favourably consider to accept that no designated common route for interchange of ST-3 need be provided on the condition that the occupants on 1/F can gain access to another required staircase from ST-3 without passing through other person’s private premises.</p> |
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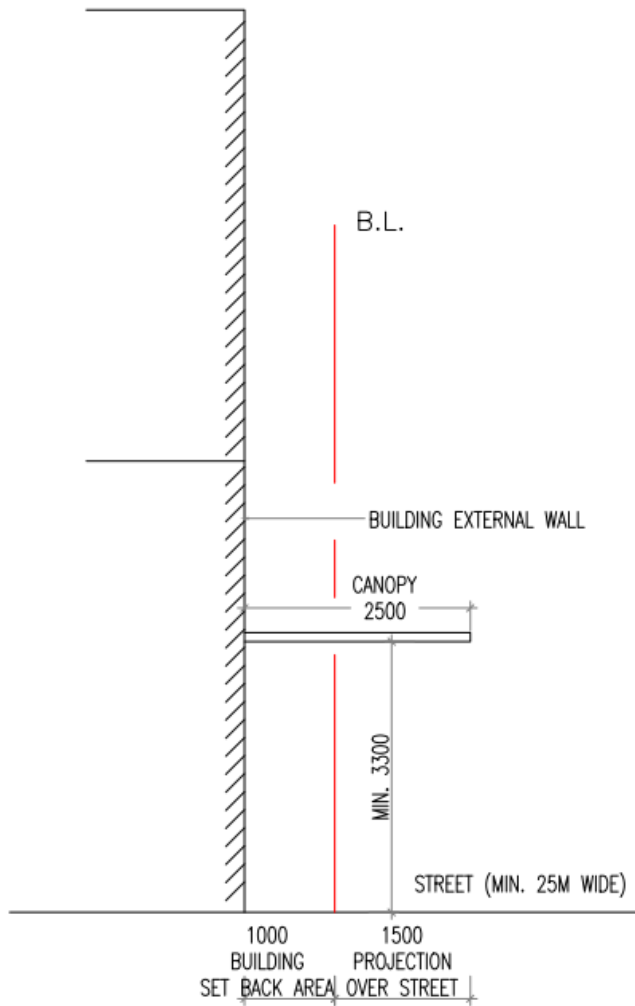
Please clarify if our understanding is correct.

15. **Canopy Projection**

Under regulation 10 of the B(P)R, the maximum projection of a canopy erected over any street shall be 1/10 of the width of the street or 3 m, whichever is less. Moreover, as stipulated in paragraph 3(k) of PNAP APP-19, it is accepted that canopies projecting not more than 2 m over an entrance to a building may be exempted from GFA calculation.

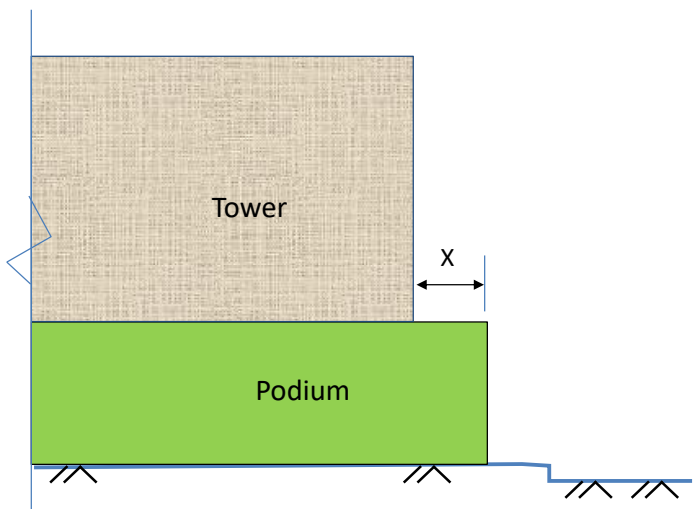
BD advised that the area covered by a canopy projecting not more than 2 m within the site boundary, over the entrance of a building, might be favourably considered for exemption from GFA calculation as per PNAP APP-19. For an entrance canopy complying with regulation 10 of the B(P)R, which projected partly within the site and partly over the street,

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| <p>To our understanding, the condition stipulated in PNAP APP-19 shall only apply to the scenario where the canopy projection is within the site. In case the entrance canopy projection is partly inside the site and partly projecting over the street, and the requirement under regulation 10 of the B(P)R has also been complied with, the covered area of the said canopy within site boundary can also enjoy GFA exemption as per PNAP APP-19. Please confirm if our understanding is correct.</p> | <p>the covered area to a maximum width of 2 m within the site might also be exempted from GFA calculation.</p> |
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CANOPY PROJECTION
PARTLY WITHIN SITE
AND PARTLY OVER STREET

| Items raised by ACEHK | |
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| <p>16.</p> | <p><u>Requirement of Links in Composite Columns</u></p> <p>For basements using a top-down construction sequence, steel stanchions are normally required and occupy the major cross-sectional area of the permanent composite columns. The presence of stanchion inevitably blocked the column links as required in section 9 of the Code of Practice for Structural Use of Concrete 2013 (2020 Edition) (Concrete Code).</p> <p>We would like BD to clarify whether in such composite column configuration, the column link requirement stated in the Concrete Code is still mandatory. Different BD case officers appeared to have different interpretations and different acceptance criteria. We also want to enquire if there are typical column link arrangements for composite columns acceptable to BD that can be released for industry's reference.</p> |
| <p>17.</p> | <p><u>Reinforced Concrete (RC) Beam-Composite Column Joint</u></p> <p>Referring to the above item, the presence of stanchion will also inevitably block the conventional RC beam rebars arrangement and those blocked rebars are probably connected onto the steel stanchion by couplers. The steel section inside the permanent column is thus very strong and able to resist all the unbalanced shear force.</p> <p>In the Code of Practice for the Structural Use of Steel 2011 (2021 Edition) (Steel Code), it is allowed to use the encased steel for column shear force design, and we opine that it should be acceptable to extend the same</p> |

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| | <p>principle for RC beam-composite column joint. Can we apply clause 10.5.3.5 (4) of the Steel Code and assume the transverse shear to act on the steel section alone, instead of referring to the Concrete Code?</p> | |
| <p>18.</p> | <p><u>Cladding – PNAP APP-16</u></p> <p>Paragraph 4 of PNAP APP-16 on Cladding specified that submission of structural plans is required when the cladding to be installed is above 6 m from the adjoining ground level or adjoining floor. Is there any specific width of the adjoining floor to be defined as an “adjoining floor”, i.e. set back distance X from the edge of podium floor? Can we assume it as the dimension sufficient for safe erection of the cladding, e.g. width of a cherry picker?</p>  <p>In addition, can paragraph 4 of PNAP APP-16 also be applied to atypical</p> | <p>BD clarified that the said requirement was for public safety concerns on fallen objects after the cladding was installed. BD also clarified that paragraph 4 of PNAP APP-16 did not preclude the use of other materials for the cladding.</p> <p>BD advised that there was no specific dimensional requirement (i.e. value of X) for the definition of adjoining floor. Representatives from HKIE, AAP, ACEHK and AREC requested for guidelines on such requirement for determining the need of submission of structural plans for cladding, in order to minimise the chance of disagreement amongst AP, RSE and the Client. BD would look into the issue.</p> <p>BD reminded that the AP/RSE was responsible for the cladding design no matter the submission of structural plans for cladding was required or not.</p> |

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| | <p>construction materials, such as Bronze, Brass, GRC, etc., if the safety concern of their erection has been satisfied?</p> | |
| <p>19.</p> | <p><u>Ground Settlement Limits – PNAP APP-137</u></p> <p>In some projects, extraordinarily deep basement is required to accommodate car park or alike structures underground to fulfil the planning requirement. Coupled with a weak ground condition, the incurred cumulative ground / utility settlements during foundation construction and ELS stages are likely beyond 25 mm even a robust embedded retaining wall (e.g. diaphragm wall) and close to practical limit strut spacing are adopted.</p> <p>The current revision of PNAP APP-137 (extract of Appendix B below) allows RSE/RGE to adopt the serviceability limit of the adjacent ground, structures and utilities as the trigger value of the Action Level, instead of the provisional trigger value of 25 mm. We would like BD to confirm this engineering approach is applicable to all sites, irrespective of whether they are located in rural area or urban districts.</p> | <p>BD clarified that the engineering approach was applicable to all sites and the adoption of the serviceability limits greater than the provisional trigger values might be adopted as long as the impact to the surrounding roads, utilities and buildings were properly assessed and the serviceability limits were agreed by the affected undertakers. BD would remind officers the relevant requirements in PNAP APP-137.</p> |

| Instrument | Criterion | Alert | Alarm | Action |
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| Ground settlement marker | Total settlement | 12mm | 18mm | 25mm |
| Services settlement marker | Total settlement & Angular distortion | 12mm or 1:600 | 18mm or 1:450 | 25mm or 1:300 |
| Building tilting marker | Angular distortion | 1:1000 | 1:750 | 1:500 |

Remarks :

The “Action Level” response actions should be taken if any of the following criteria occurs:

- Any monitoring station has a reading reaching the specific trigger value based on serviceability limit¹, or in the absence of such engineering assessment, the provisional trigger value, whichever is applicable.
- Undue settlement as indicated in any check points (e.g. an increase of 5mm between two consecutive daily readings).
- Sign of distress or damages observed in any adjacent structures and/or services.

¹ Serviceability limit is defined as the maximum calculated movements estimated in the design or the maximum allowable movement or response of the adjacent ground, groundwater regime, structures and services.

(10/2018)

Items raised by AREC

20. **Clarification of Maximum Vertical Bar Spacing for Columns**

According to clauses 9.5.1 and 9.9.2.1 of the Concrete Code, the maximum allowable spacing for vertical bar is not specified.

In clause 9.5.1 of the Concrete Code, it only stated the minimum number of vertical bars required.

In clause 9.9.2.1 of the Concrete Code, it only stated the rebar ratio and

BD advised that no maximum allowable spacing for vertical bar was specified in the Concrete Code, and BD would review the issue in the Technical Committee on the Code of Practice for Structural Use of Concrete.

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| | spacing of transverse rebar (where vertical bar was not mentioned). | |
| Items raised by PBSCA | | |
| 21. | <p><u>GFA Concession for Plant Rooms</u></p> <p>According to paragraph 11 of PNAP APP-2, “<i>Under regulation 23(3)(b) of B(P)R, the BA may disregard from GFA calculation floor space occupied solely by machinery or equipment for lift, air-conditioning, heating system or any similar service. The phrase "any similar service" may generally be interpreted to include fire control centre, water tanks, <u>electrical switch rooms, meter rooms, transformer rooms, generator rooms, pump rooms, telephone equipment rooms, cable riser duct room, CO₂ rooms, hose reel closets, sewage treatment plant rooms and smoke extraction system. In each case, both the premises for and the size of any such feature should be justified.</u></i>”</p> <p>In the case of converting an old industrial building into a data center, extra power supply is required. New plant rooms such as <u>high voltage switch rooms, customer switch rooms and/or new transformer rooms</u> will be built on the ground floor where the areas of existing car park, loading and unloading area had been disregarded from GFA calculations at the time when the building was built. Would BD confirm whether the new plant rooms are considered as essential plant rooms for disregarding from GFA calculations?</p> | <p>BD advised that according to paragraph 4 and 5 of PNAP APP-150, for wholesale or partial conversion of an existing industrial building to data centre, where the proposed conversion would result in certain covered carparking spaces shown on the approved building plans of the original industrial building becoming redundant and such carparking spaces had previously been disregarded from the GFA calculation under regulation 23(3)(b) of the B(P)R, application for modification of regulation 23(3)(a) of the B(P)R to convert such redundant carparking spaces to additional transformer rooms or other mandatory features or essential plant rooms would be favourably considered according to its special circumstances and subject to favourable comments from relevant government departments.</p> |

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| <p>22.</p> | <p><u>GFA Concession for AC Plant Rooms</u></p> <p>According to paragraphs 7 and 8 of PNAP APP-42, <i>“in accordance with regulation 23(3)(b) of the B(P)R, any floor space genuinely intended for <u>air-conditioning</u> may be disregarded from GFA calculations, subject to compliance with the pre-requisites and the overall cap on GFA concessions stipulated in PNAP APP-151.</i></p> <p><i>The following provisions would be considered reasonable in the absence of the detailed design layout of the plants:</i></p> <ul style="list-style-type: none"> <i>(a) air-conditioning plant rooms not exceeding 1% of the total GFA of a building; and/or</i> <i>(b) air handling units, not exceeding 4% of the total GFA of each floor on which they are situated.”</i> <p>In case of data centre which requires high cooling capacity, the air-conditioning (AC) system would be different from the traditional centralised AC systems such as chiller plant/ air handling unit/ VRV. AC system in data center will likely adopt cooling towers with a large water tank to support the building use. In PNAP APP-2, only the water tanks for portable water / flushing water / fire services could be disregarded from GFA calculations. Would BD confirm whether the water tanks for cooling towers for AC purpose are considered as essential plant room for disregarding from GFA calculations or as non-essential plant room and whether GFA concession would be granted?</p> | <p>BD advised that according to regulation 23(3)(b) of B(P)R, any floor space genuinely intended for AC might be disregarded from GFA calculation, subject to compliance with the pre-requisites and the overall cap on GFA concessions stipulated in PNAP APP-151.</p> <p>In case of data centre which required high cooling capacity and adopted cooling towers with a large water tank to support the building use, full justification would be required to be submitted to BD for seeking the advice from the Director of Electrical and Mechanical Services during the plan processing stage.</p> |
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| <p>23.</p> | <p><u>GFA Calculation of U/G Fuel Tank</u></p> <p>According to paragraph 1 of PNAP APP-2, “<i>regulation 23(3)(a) of the B(P)R stipulates that gross floor area (GFA) is the area contained within the outer surface of external walls of a building measured at each floor level. Any portions of this area not floored over should also be included in the GFA calculations.</i>”</p> <p>For an outdoor underground fuel tank of less than 2 m depth, with opening covered by steel cover, resembling a large manhole, can the fuel tank be exempted from GFA calculation?</p> | <p>BD would favourably consider disregarding the outdoor underground fuel tank from GFA calculation provided that it was in a genuine design and the abuse of such was unlikely.</p> |
| <p>24.</p> | <p><u>GFA Concession for Electric Vehicle (EV) Charging-enabling Carparking Spaces</u></p> <p>According to paragraph 18 of PNAP APP-2 as shown below, carparking spaces to be disregarded from GFA calculations should be EV charging-enabling. Is this requirement also applicable to carparking spaces for light goods vehicles and heavy goods vehicles?</p> | <p>BD advised that EV charging-enabling facilities should be provided for all types of carparking spaces to be disregarded from GFA calculation under PNAP APP-2.</p> |

18. The BD adopts the following principles in determining the GFA of car parking and loading/unloading areas under the BO:


| | Private Car Parks (% Disregarded) | Public Car Parks (% Disregarded) | Loading/Unloading (% Disregarded) |
|---|--------------------------------------|-------------------------------------|--------------------------------------|
| Underground | 100%* | 100%* | 100% |
| Above ground | 50%* | 0% | G/F – 100% Above G/F – 50% |
| Above ground (i) Site constraints making underground car parks technically infeasible, or (ii) Posing no adverse environmental or visual impact | 100%* | Not Applicable | Not Applicable |

* Provided that the car parking spaces are EV charging-enabling.

25. **Temporary Security Mesh Fence**

For security purpose, a cordon by mesh fence is provided for equipment / materials temporarily placed in the loading and unloading area before they are loaded onto vehicles or delivered away from the loading and unloading area. As the equipment / materials cordoned off by mesh fence is uncovered, we note that there should be no GFA implication for the erection of temporary security mesh fence enclosing a portion of the loading and unloading area which is GFA non-accountable. Is our understanding correct?

BD advised that loading and unloading area should only be used for loading and unloading purpose. If any portion of such loading and unloading area was changed to temporary storage use, it should be included in GFA calculation and the proposed change in the car park design would be circulated to relevant government departments for comments.

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| <p>26.</p> | <p><u>Provision of Firefighting and Rescue Stairway (FRS) Lobby</u></p> <p>According to Clause D16.1(a) of the FS Code, a lobby to FRS has limitation in area ranging from 5 m² to 10 m².</p> <p>Due to the site constraints of an existing building, the existing fireman’s lift is not closed to the perimeter of the building or the proposed FRS. In case the proposed A&A works of the building require an upgrading for the provision of a new FRS, would it be acceptable by forming a protected link corridor between the proposed FRS and the existing fireman’s lift lobby (see Scenario 1) to comply with the requirement and/or to have the area of the fireman’s lift lobby to be more than 10 m² (see Scenario 2)?</p> <p> Firemen lift lobby and FRS (3).pdf</p> | <p>BD advised that under Section 3, Part A of the FS Code, FRS meant a stairway accommodating an access staircase and a fireman’s lift. Clause D16.1(a) of the FS code stipulated that access from the stairway to that floor should be through a lobby which should have a floor area of not less than 5 m² and not more than 10 m² with a minimum dimension of 1.5 m.</p> <p>Scenario 1 was not acceptable noting that the fireman's lift was not accommodated in a stairway with the access staircase. For Scenario 2, it was noted that the size of the lobby marginally exceeded the maximum requirement of 10 m². BD would take a pragmatic approach and consider the case merit subject to AP's justification and the comments of relevant departments.</p> |
| <p>27.</p> | <p><u>Provision of Sanitary Fitments</u></p> <p>There is no stipulated requirement on sanitary fitments for data center. Would BD confirm whether the total usable floor area (UFA) of all floors of the data center could be adopted for the calculation of the required provision of sanitary fitments (similar to that for shopping mall), so that all the required sanitary fitments to be provided at ancillary office level or the entrance lobby (caretaker floor level) would be acceptable, instead of providing the fitments on floor-by-floor basis?</p> <p>Other than the above, would BD accept the provision of accessible unisex</p> | <p>BD advised that a data centre would fall within the category of “industrial undertaking” under “workplaces”. The number of sanitary fitments provided in a workplace should follow regulation 5 of Building (Standards of Sanitary Fitments, Plumbing, Drainage Works and Latrines) Regulations, depending on the number of persons based on the UFA of the workplaces. In general, the proposed sanitary fitments should be readily accessible to the intended users of the workplaces without the need of gaining access through other private premises. In addition, in view of the variety of layouts and the relatively large floor</p> |

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| | <p>toilets only at the levels of ancillary office and entrance lobby?</p> | <p>areas of data centre, the location of toilets should be reasonably designed taking into consideration of the convenience of the users.</p> <p>BD also advised that according to paragraph 47 in Division 11 of the DM:BFA, where toilet was provided on a floor, at least one shall be designed as an accessible unisex sanitary facility.</p> |
| <p>AOB Items</p> | | |
| <p>28.</p> | <p><u>Increasing the Number of Attendees at the APSEC Discussion Forum (ADF)</u> (Item raised by HKIA)</p> <p>Owing to the relatively large number of questions raised by HKIA in the past ADFs, HKIA requests BD to consider increasing the number of their attendees from 4 to 6 in the future ADFs, to allow members who contributed the questions to attend the ADFs in person and participate in the discussion.</p> | <p>BD would look into the issue.</p> |
| <p>29.</p> | <p><u>Safety Test for Curtain Wall</u> (Item raised by ACEHK)</p> <p>Due to the backlog of testing accumulated during the COVID-19 pandemic, some contractors have expressed their difficulties in finding a local laboratory to carry out safety test for curtain wall as specified in PNAP APP-37 before the end of September 2022. This will seriously affect the site progress. To alleviate the possible delay, they can carry out the tests in other laboratories located in Guangdong Province. However, due to the</p> | <p>BD advised that they would consider the proposed arrangement on case basis.</p> <p>BD also reminded that the test should be carried out by an independent laboratory accredited by the Hong Kong Laboratory Accreditation Scheme (HOKLAS) or by other laboratory accreditation bodies which</p> |

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| <p>current COVID-19 situation, supervisory personnel are unable to carry qualified supervision for the tests in the mainland China.</p> <p>On the other hand, the pragmatic and flexible approach promulgated in BD's Circular Letter issued on 22 April 2022 on Qualified Supervision and Quality Audit for Precast Concrete Construction, Modular Integrated Construction and Heat Soak Process of Tempered Glass did not cover the qualified supervision of safety test for curtain wall. ACEHK proposes to extend the alternative arrangement of using videotelephony for supervision/audit checks to the safety test for curtain wall upon requests by the project RSE and substantiated with justifications.</p> | <p>had reached mutual recognition agreements/arrangements with HOKLAS.</p> |
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