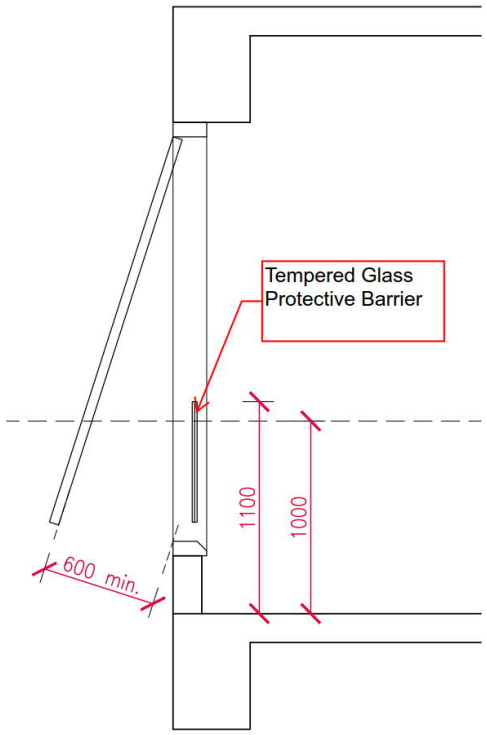
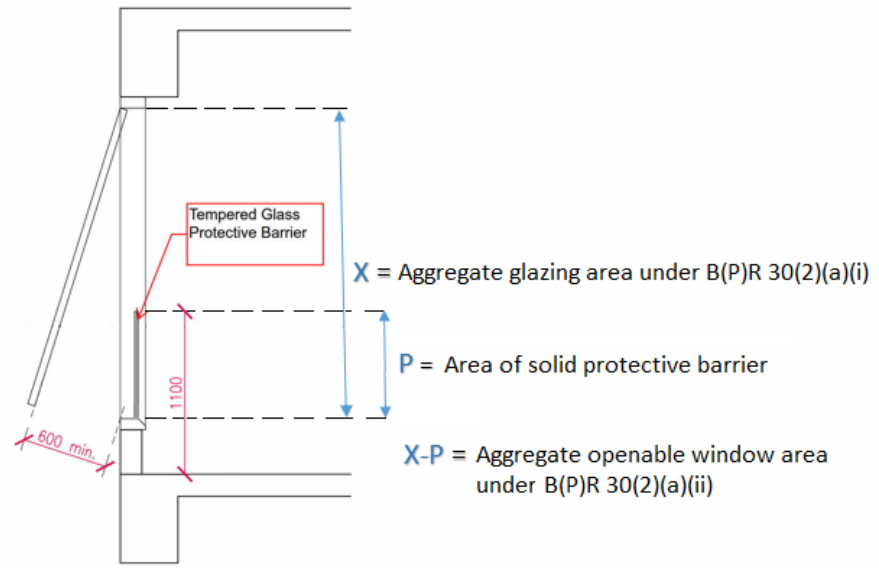
Summary of Items Discussed in 3/2021 APSEC Discussion Forum on 21 May 2021

	Items proposed by Convenors for Discussion	Summary of Discussion and BD's Responses
	Items raised by HKIA	
1.	**AC Platform for Non-Domestic Portion** Referring to item 3 of ADF 1/2021 held on 22 January 2021, BD advised that *"…the concerned requirement under item (h)(ii) of Appendix B to the DfS Code is applicable to the entire development (i.e. including the non-domestic portion of a composite development)…".* Our understanding is that "the entire development" as abovementioned is indeed meant to be "the entire building", noting that BD's response to item 17(ii) of ADF 5/2019 held on 22 November 2019 explicitly remarked that *"…For development with more than one building, each building of the development should be considered individually…".* Please confirm if our understanding is correct.	BD advised that HKIA's understanding was correct.
2.	**Design Manual: Barrier Free Access 2008 (DM: BFA 2008), Division 10 – Doors** Pursuant to paragraph 38, Division 10 of DM: BFA 2008, it is our understanding that the measurement of the required clear width of not less than 800 mm should be measured between the open door leaf and the opposite jamb or the other leaf of a pair of double doors, *disregarding the door accessories/ironmongeries on the door leaf such as door handle, door lock, etc.*	BD advised that HKIA's understanding was correct.

	Please confirm if our understanding is correct.	
3.	**<u>Top-Hung Openable Window</u>** Referring to item 16 of ADF 2/2020 held on 29 May 2020, BD reaffirmed that "…*For windows, no matter facing street which is not less than 4.5 m wide or facing an RHP, the superficial area of that portion of the glazing and window opening at level below 1m A.F.F.L. might also be counted towards the aggregate glazing area and aggregate openable window area as required under B(P)R 30(2)(a)(i) and (ii) respectively".* Following the above and with respect to top-hung openable window as shown in the below sketch, it is our understanding that the minimum required 600 mm clearance to fulfil natural ventilation purpose can be measured from the bottom frame of the openable sash to the fixed window frame at the actual sill level as indicated in the sketch. Please advise if our understanding is correct.	BD advised that following the responses to item 23 of ADF 5/2019 held on 22 November 2019 and item 15 of ADF 1/2020 held on 10 January 2020, the openable window area should be calculated based on the elevation area of such window if the openable extent of the window was not less than 600 mm, and the area obstructed by the protective barrier should be disregarded. In any case, section 37 of Building (Construction) Regulation (B(C)R) should be complied with where there was a difference in adjacent levels greater than 600 mm. Regarding the measurement of openable extent of the window, BD advised that HKIA's understanding was correct, i.e. the minimum required 600 mm clearance could be measured from the bottom frame of the openable sash to the fixed window frame. A refined sketch is attached for reference.

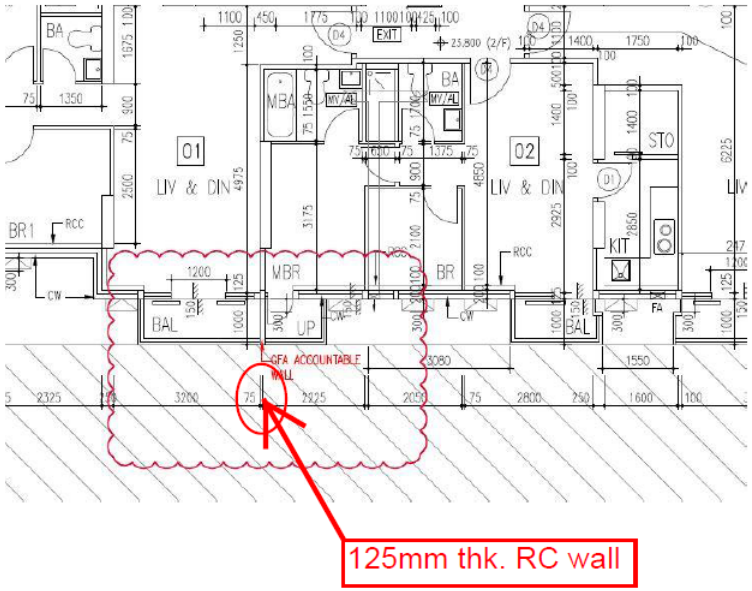


SECTION

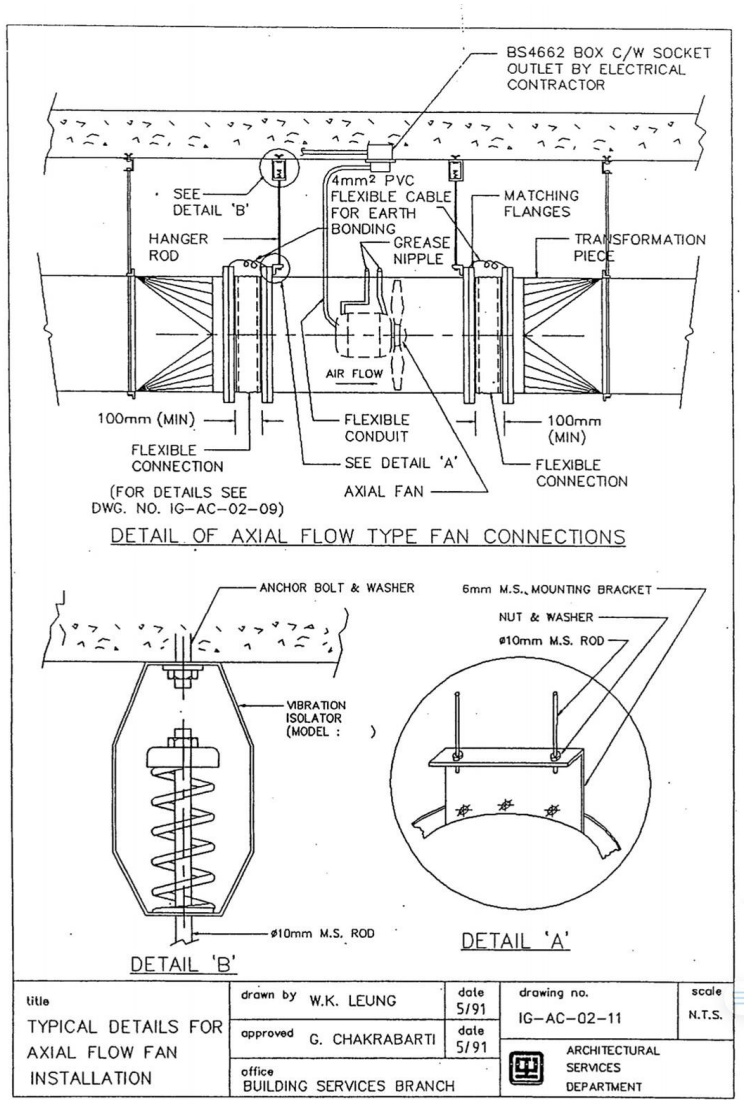


SECTION

4.	**<u>Driveway / EVA within a Proposed Development</u>** For a driveway which also serves as the EVA for the buildings within a proposed development, it is our understanding that such driveway/EVA is not required to follow the requirements as stipulated in the Building (Private Streets and Access Roads) Regulations. In particular, as such driveway/ EVA is not a private street or access road and provision of footpath is not required. Please advise if our understanding is correct.	BD advised that HKIA's understanding was correct. If the EVA also served as a private street/access road, footpath(s) should be provided according to Building (Private Streets and Access Roads) Regulation 4. Response to item 17 of ADF 3/2016 held on 27 May 2016 was also relevant.
5.	**<u>Site Coverage for Composite Development</u>** Whilst Building (Planning) Regulation (B(P)R) 21(2) provides explicit provision on the means to derive the maximum permissible domestic plot ratio of a composite development (i.e. what the industry has used to call it as the "residual method"), there is no provision under B(P)R for deriving the permissible site coverage of a composite development, in particular, for situation where there are different blocks of domestic and non-domestic use of buildings. Notwithstanding, it has been an established practice that the permissible site coverage of such composite development is derived taking reference from the residual method for plot ratio calculation. We would like to know if there have been any changes to the above established practice, as we have been informed by certain members recently that residual method was not allowed for site coverage assessment in their composite development proposals.	BD advised that although there was no provision under B(P)R, the residual method for calculation of permissible site coverage for composite development was acceptable.

6.	**<u>Separation Between Utility Platform and Balcony</u>** Referring to item 10 of ADF 1/2021 held on 22 January 2021, BD advised that the proposed layout was considered not acceptable as the separation of UP and balcony by means of a 75 mm partition could be easily removed. As a matter arising, we would like to enquire whether it would be acceptable if such separation wall is revised to min. 125 mm thick R.C. wall (as per the below revised sketch) such that the separation wall will not be easily removed.  	BD advised that according to JPN2, there was a 1.5 m separation requirement between the UP and balcony. In some circumstances, BD might relax such requirement taking into account the chance of abuse. To this end, the proposed layout as shown on the sketch was considered not acceptable.

7.	**<u>Supporting Frame for Suspended AC Plant / Mechanical Ventilation Plant</u>** Pursuant to PNAP ADV-33 and PNAP ADM-19, suspended AC plant / mechanical ventilation plants with weight larger than 150 kg needs to be shown on GBP, and respective structural plans for the supporting frame will also need to be submitted for approval/consent. The above requirement applies to development projects and A&A proposals whose first Form BA 12/13 and BA 14 respectively are received by BD after 31 August 2021. Support for suspended AC unit commonly adopted in local projects involves the use of threaded steel rod with spring connection for vibration absorption, such as the standard detail of ArchSD projects (copy attached). This commonly adopted detail, however, is different from the reference supporting detail as illustrated in the Appendix of PNAP ADV-33. Would BD please advise if the supporting detail similar to the threaded rod design as per the attached sketch can also be accepted as an alternative for the support of AC plant with weight larger than 150 kg.	BD advised that a meeting with representatives of HKIA, HKIE and AAP would be arranged for discussion on the subject matter separately. [Post-meeting note issued on 25 June 2021: A meeting with representatives of HKIA, HKIE and AAP was held on 21 May 2021, at which the practitioners reflected that there were practical difficulties in meeting the new requirements as stipulated in PNAP ADM-19 for projects that were progressing towards completion stage and the construction details of supporting frames (with vibrator isolator) commonly adopted were different from that as shown in the sample drawing in Appendix B11 of PNAP ADV-33. In this connection, a further meeting with representatives of HKIE (including representatives from the Building Services Division) was held on 2 June 2021 with a view to enriching the design guidelines and sample drawings for inclusion in PNAP ADV-33. Taking into consideration the views and feedback collected in the meetings, the following adjustment to the grace period and structural design requirements for the supporting frame are implemented with immediate effect:



Grace period

The grace period as stipulated in paragraph 34 of PNAP ADM-19 is amended as highlighted in red below:

"……This requirement will apply to development projects ~~and A&A proposals whose first Form BA12/BA 13 and BA 14 respectively are received by BD~~ with consent to the commencement of superstructure works and A&A proposals with consent to the commencement of works granted after 31 August 2021."

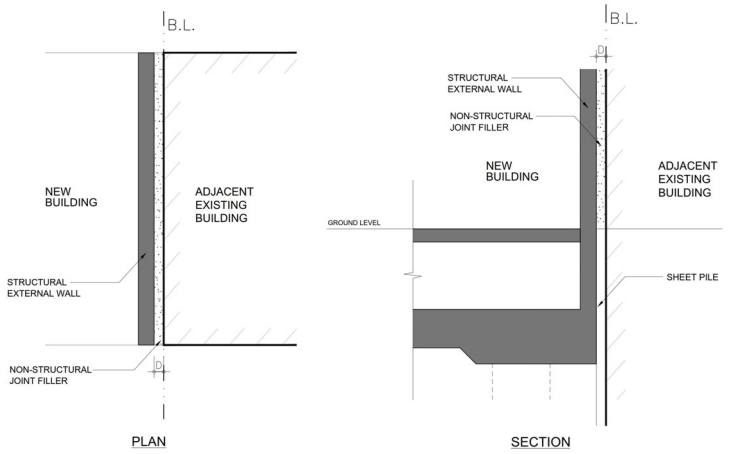
PNAP ADM-19 incorporating the adjusted grace period will be issued in due course.

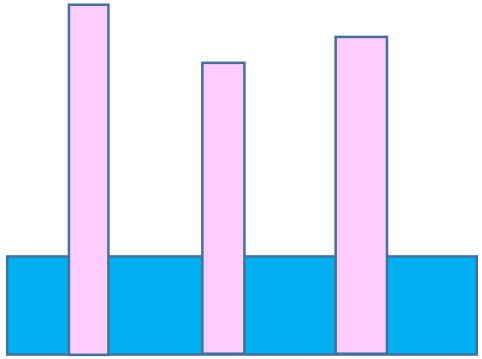
Structural design requirements

Alternative supporting frame details similar to those shown in the attached diagram is acceptable in principle and should be submitted for approval with structural calculations demonstrating its structural adequacy against stability and design loads.

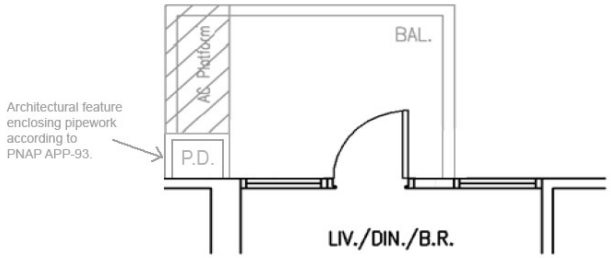
For the design of supporting frame for A/C plant or mechanical ventilation plant, a notional horizontal load of either 0.5% of factored dead plus live load (if applicable) or a value specified in the proprietary product catalogue should be considered. In addition, the structural use of spring support should be in accordance with the proprietary product catalogue and manufacturer's specifications. No notional horizontal load is required to be considered for the design of supporting frame for

		ventilation duct. PNAP ADV-33 is being revised to incorporate an additional sample drawing of typical supporting frame details making reference to those shown in the attached diagram.] [Further post-meeting note: Revised PNAP ADM-19 issued on 28 June 2021.]
8.	**<u>Joint-Filler between Adjoining Buildings</u>** B(P)R 23(3)(a) stipulates that gross floor area (GFA) is *the area contained within the external walls of a building measured at each floor level.* In urban sites where buildings are constructed immediately adjoining each other, joint filler between the enclosure wall of a building and that at the adjoining site is required due to site constraints and constructability aspect, especially when there are sheet piles below ground along the common boundary to facilitate sub-structure/basement construction. Please refer to the below sketch plan and section for easy reference. Since the joint filler is outside the outer surface of external walls and is also inaccessible so that abuse of use is seemingly impossible, would BD please advise if such joint filler can be disregarded from GFA calculation.	BD advised that pursuant to B(P)R 23(3)(a), GFA was the area contained within the external walls of a building measured at each floor level, the sheet pile and non-structural joint fillet, not forming part of the building would normally be disregarded from GFA calculation. Each case would be considered on individual case merits.

		
	Items raised by HKIE	
9.	**<u>Explanatory Notes to the Code of Practice on Wind Effects in Hong Kong 2019</u>** Appendix A2 of Explanatory Notes to the Code of Practice on Wind Effects in Hong Kong 2019 mentions that "Buildings in the same building lot shall be treated as a whole, when evaluating the direct sheltering effect for the determination of the most beneficial building/buildings to be removed." Please clarify the definition of "building lot" when considering the sheltering effect. Does "building lot" means "land lot" as defined in the government land lease or an estate development? For large residential development such as Tai Koo Shing, if it is considered as one building lot, the buildings of whole development shall be removed	BD advised that buildings within a cluster covered by the same occupation permit could be treated as "buildings in the same building lot" for the evaluation of direct sheltering effect and determination of the most beneficial building/buildings.

	and the effect would be extensive. On the contrary, fragmented land lots can contribute to one building development.	
10.	**<u>Evaluation of Across Wind Effect under Code of Practice on Wind Effects in Hong Kong 2019</u>** In the evaluation of across wind effect (by Equation 2-2 in page 10 of the CoP extracted below), fundamental frequency is necessary to be determined prior to the calculation. How can we determine the fundamental frequency of the multi-tower structures over a common podium? $$M_{xx,base} = \pm \frac{G_{ry}}{\gamma_w \xi_y^{0.5}} \frac{\rho_a}{N_y^{1.3} (BD)_b^{0.15}} \left(\frac{0.215\sqrt{2\gamma_w Q_h/\rho_a}}{1+3.7I_{v,h}} \right)^{3.3} \frac{H_b^2}{3}$$ - Equation 2-2	BD advised that the fundamental frequency of multi-tower structures over a common podium could be assessed by assuming the individual tower structure standing alone (i.e. not connecting to the podium structures) and extended to the base (G/F or pile cap) as shown in pink colour in the diagram below.  Integration of certain portion of the podium structures (e.g. one bay) into the computer model for estimating the fundamental frequency of individual tower would be considered on a case-by-case basis. Alternatively, if an integrated computer model of the towers and podium structures was set up, the frequency of the first mode of vibration

	Where G_{ry} peak factor on standard deviation of across-wind resonant response in one hour $= \sqrt{2\,Log_e(1800\,N_y)}$ γ_w ultimate wind load factor, taken as 1.4 ξ_y ratio of damping to critical damping in across-wind direction of vibration in Appendix C2 ρ_a mass density of air, taken as $1.2\text{x}10^{-3}$ T/m^3 N_y fundamental frequency for mode mainly aligned with the across-wind direction $(BD)_b$ the average plan area of the enclosing rectangle over the top third of the building Q_h wind reference pressure, Q_z, at effective building height, H_e $I_{v,h}$ wind turbulence intensity at building height, H, may be taken as $I_{o,h}$ in Equation 3-3 or 3-4, from wind tunnel testing, or be calculated by the method of the Engineering Sciences Data Unit (ESDU) H_b height of building structure above ground level, but excluding the height of irregular roof features above main roof.	obtained from the computer analysis of the integrated model could be taken as the fundamental frequency in all directions.
11.	**<u>GEO Referral</u>** Normally, BD will refer geotechnical related submissions to GEO for comments and the project RSE/RGE will actively approach GEO for follow up action. To facilitate a smooth communication, would BD alert project RSE/RGE when such referral is made.	BD advised that the current GEO referral system was long established and proven effective and did not intend to introduce further alerting system. Notwithstanding the above, BD would further discuss with GEO on the workflow in handling the referred submissions to enhance communication. [Post Meeting Note: The GEO was consulted through the BD/GEO

		Liaison Group on 7 June 2021. The GEO advised that the established procedures in handling the BD's referred submissions remain effective.]
	Items raised by AAP	
12.	**<u>Disposition of AC Platform combined with Balcony and/or UP</u>** Further to item 9 of ADF 3/2020 held on 29 September 2020, to allow design flexibility, we would appreciate if BD could consider alternative dispositions such as, without limitation to, those illustrated below: **Scenario A) Architectural feature located in between AC platform and external wall of building**  Figure A1:AC Platform in Balcony	BD advised that if architectural feature was proposed to enclose external drainage pipes, the access for inspections and maintenance should be from common part of the building. Paragraph 7 and appendices B and C of PNAP APP-93 referred. In addition, section 27(2) of B(C)R also stipulated that maintenance and repair (M&R) access should be provided to the external wall and its projection (i.e the architectural feature of scenario A). In both scenarios, narrow recessed space would be created which might pose difficulties in access and maintenance. In this connection, the AP should be required to critically examine whether the M&R access to the concerned drainage pipes/architectural features/recessed external wall would not be jeopardised for pursuing such design proposal.

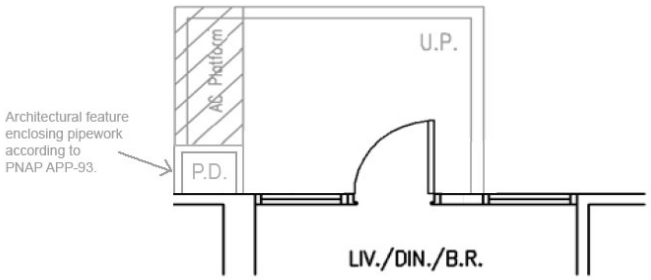


Figure A2: AC Platform in UP

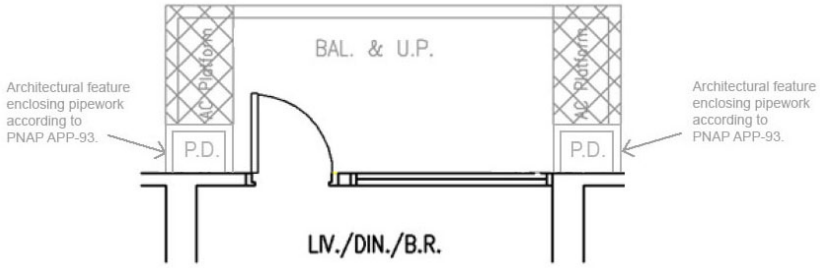


Figure A3: AC Platforms in combined Balcony and UP
(one AC platform is also acceptable)

Scenario (B): AC platform detached from external wall

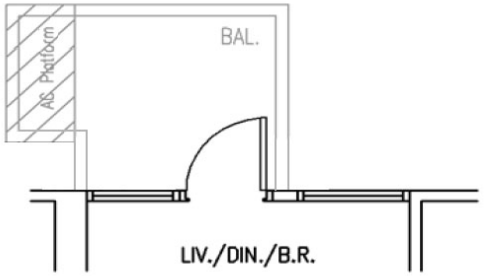


Figure B1:AC Platform in Balcony

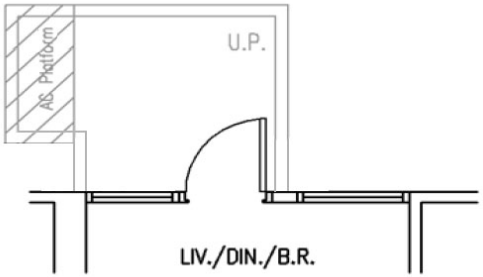
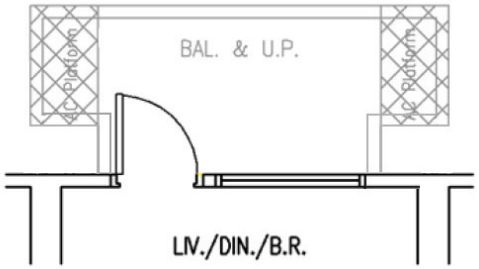
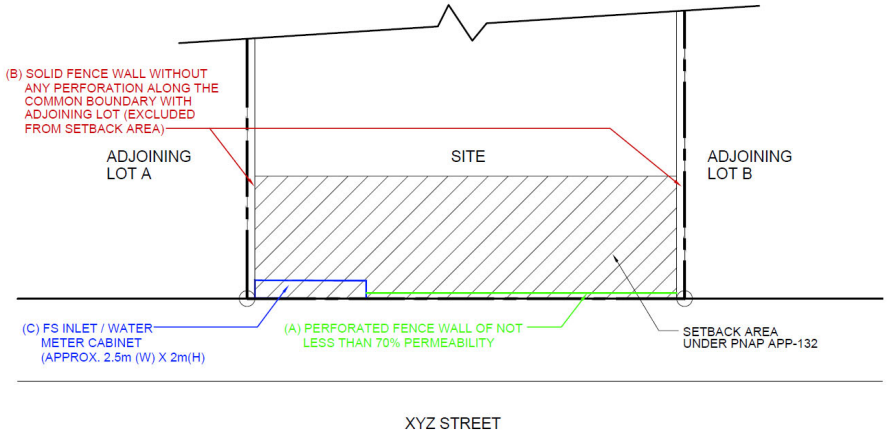
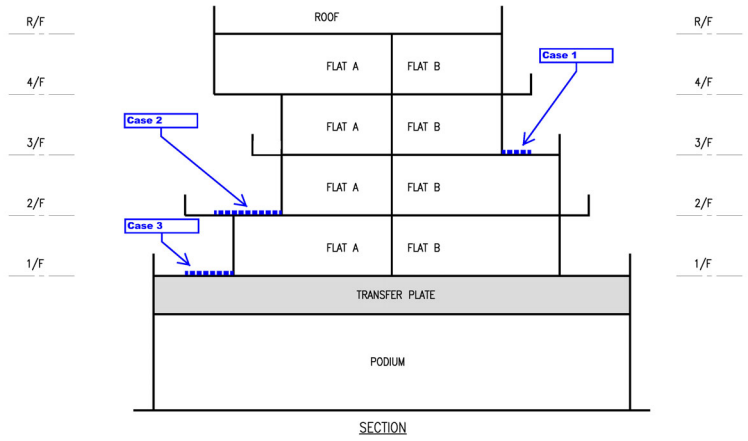


Figure B2: AC Platform in UP

	 Figure B3: AC Platforms in combined Balcony and UP (one AC platform is also acceptable)	
13.	**<u>PNAP APP-132 – Site Coverage and Open Space Provision</u>** PNAP APP-132 states that, in considering applications for site coverage to exceed the limit laid down in B(P)R using the "setback approach", the BA will favorably consider the application if "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". In this regard, please clarify if the following interpretations are correct: 1. There is no definition of "perforated boundary wall" in the PNAP. We understand that the percentage of perforations on the said boundary wall at around 70% would be accepted by BD as fulfilling this requirement. 2. Fence walls abutting common boundaries with the adjoining sites in the	For 1, BD advised that 70% perforated boundary wall was considered acceptable in principle depending on individual merits of each case. For 2 and 3, BD advised that the design of the setback area should be considered as a whole for satisfying the purpose of enhancing street environment. The setback area should be properly landscaped and/or paved and open, uncovered and without any permanent building structures other than landscaped features or perforated boundary wall. In this connection, solid fence walls and E&M cabinets should not be allowed within the setback area even though part of such area where these features were located was excluded from the setback area calculation.

	setback area can be solid if they are excluded from the setback area calculation. 3. As the F.S. inlet cabinet and main water meter cabinet inside the setback area are commonly placed at the site boundary facing the main street, such essential services housed in cabinets of a reasonable size can be allowed in the setback area.  	
14.	**<u>PNAP APP-42 – Amenity Features</u>** According to PNAP APP-42, "Counters, Kiosks, Offices, Stores, Guard Rooms, and Lavatories for Watchmen and Management Staff" may be exempted from GFA calculation provided that "the maximum GFA that may be allowed for exemption in a domestic building or domestic part of a composite building is 0.2% of the total domestic GFA or 5 m^2 for every 50	BD advised there was no provision of pro-rata basis to calculate the GFA exemption for "Counters, Kiosks, Offices, Stores, Guard Rooms, and Lavatories for Watchmen and Management Staff" according to PNAP APP-42.

	flats, whichever is smaller", amongst other conditions. It is our understanding that if the number of flats in the development is greater than 50, but not a whole-number multiple of 50, the area that may be exempted can be calculated on a pro-rata basis. For example, if the number of flats is 58, the area of "Counters, Kiosks, Offices, Stores, Guard Rooms, and Lavatories for Watchmen and Management Staff" that can be exempted from GFA calculation will be 58/50 x 5 = 5.8 m^2. Please advise if our understanding is correct.	In view that different calculation method was noted under the land lease, BD would further review the issue with Lands Department.
	AOB Items	
15.	**"Verandah" under Building (Planning) Regulation** (Item raised by HKIA) According to the interpretation under B(P)R 2, "verandah" means *any structure projecting from any wall of any building and supported by piers or columns.* We would like to seek BD's advice on whether the following cases fall within the above definition of "verandah" for the purpose of Section 8(1) of the Residential Properties (First-hand Sales) Ordinance regarding saleable area in relation to a residential property.	BD advised that while the interpretation of "verandah" under Residential Properties (First-hand Sales) Ordinance was not under the purview of BD, the 3 cases as illustrated in the diagram were not considered as "verandah" under B(P)R 2.



Case 1: Private area covered by projection (not being green features such as balcony/UP) above;

Case 2: Private area partly cantilevered and partly supported by the storey below and covered by projection (not being green features such as balcony/UP) above; and

Case 3: Private area supported by transfer plate below and covered by projection (not being green features such as balcony/UP) above.

16.	**<u>Submission of Wind Analysis Model of the Superstructure</u>** (Item raised by HKIE) To facilitate a fast track development programme, BD accepts "Assumed Loads" as design loads for foundation submissions. Would BD please clarify whether the submission of Wind Analysis Model of the superstructure as a support document for foundation submissions is required?	BD advised that submission of wind analysis model of the superstructure as a support for foundation submission was generally not required.