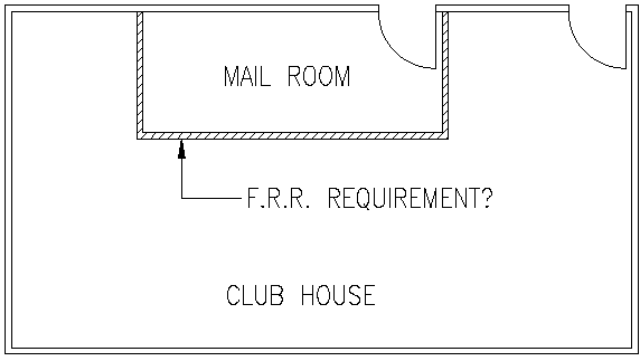
Summary of Items Discussed in 1/2018 APSEC Discussion Forum on 19 January 2018

	Items proposed by Convenors for Discussion	Summary of Discussion and BD's Responses
	Items raised by HKIA	
1	**<u>Follow-up on Mechanical Ventilation of Room containing Waste Fitment</u>** As per item 3 of ADF 2/2017 held on 17.3.2017, HKIA proposed that 1.5m x 1.5m notional area per sink/basin for calculation of the air change requirement for mechanical ventilation be acceptable for institutional use projects such as health care and educational building/premises provided that exhaust outlet should be located in the vicinity of the waste fitment. While this proposal had been accepted by BD, our members advised that such acceptance criteria had not been adhered to for some recent hospital projects scrutinised by BD. In one case, 6 air changes per hour (ACH) and 10 ACH of the entire room, depending on use of the room, were required; while only 10 ACH of the entire room was permitted in another case. Both of the above cases required prior support from the Hospital Authority (HA). In this regard, we would like to ask the following: (1) Whether HKIA's proposal as discussed in ADF 2/2017 is not applicable to hospital wards, and if affirmative, the reason behind; (2) In case the said proposal is not applicable to hospital wards, we opine	BD said that HKIA's proposal on notional area for calculating the air change as discussed in ADF 2/2017 should generally be applicable to large hospital wards provided with 10 ACH requirements as required under PNAP ADM-2. Any deviation from the above would be considered on case merits and other conditions might be imposed, citing as examples, there were cases accepted with room containing waste fitments with 6 ACH for the entire room and in compliance with international standards acceptable to the Hospital Authority.

	that the previous discussion with HA using 6 ACH based on the supporting information on international standards should be adopted, and the same should not be increased to 10 ACH arbitrarily; and (3) Any reasons to adopt 6 ACH for some rooms whereas 10 ACH for others?	
2	**<u>Existing Partition Walls outside A&A Submission Areas</u>** In A&A works, it is not uncommon to encounter situations where modified/re-located/additional partition walls are located immediately outside the A&A submission area that were exempted works and were erected before the enactment of the Building (Minor Works) Regulations. Provided that those existing partition walls do not adversely affect the structure of the building, its fire safety and that they comply with other requirements under the Buildings Ordinance, we consider that substantiation on the structural stability of those existing partition walls (which are located outside the submission extent) is not required for the A&A building plan submission. Please confirm if our understanding is correct.	BD advised that the need for structural assessment on existing partition walls outside the A&A submission area would be considered on case basis, for the purpose of ensuring the building safety and compliance with the provisions of the BO. It depended on the site conditions and the effects of the proposed A&A works on the building elements including partition walls at the submission area and its surroundings.
3	**<u>Follow-up on Separation between Balcony and UP</u>** As per item 15 of ADF 5/2015 held on 13.11.2015, BD explained that the JPN requirement of 1.5m separation between balcony & utility platform (UP) was for preventing abuses observed in projects completed under the	BD advised that favorable consideration would be given on case basis taking into account the chance of abuse.

	earlier versions of the JPN. The sketch proposal as attached to the above ADF item in 2015 (where balcony & UP of adjoining units was within 1.5m) was considered acceptable, as the UP and the balcony were separated from each other and the chance of abuse should be remote. By same token, for similar arrangement of UP and balcony of the same unit as indicated in the sketch below, we reckon that it should also be acceptable as chance of abuse is remote. Please confirm if our understanding is correct.  	
	Items raised by HKIE	
4	**<u>PNAP APP-57</u>** To facilitate a smooth and fast track processing, PNAP APP-57 allows that ELS plans could be submitted in 2 stages.	BD advised that the excavation levels of each stage of ELS works were submitted as tentative levels in the 1st Stage ELS plans and these ELS

	• 1st stage submission demonstrates the technical feasibility of the entire scheme showing the details of the vertical elements (i.e. steel sheet piles or pipe pile etc.) such as pile wall layout plan, member sizes, setting-out dimensions, toe level and depth of penetration to existing ground and proposed excavation levels as well as other essential information including location of boreholes, geotechnical profile, design water table, struts stiffness, preloading (if any), extent of ground treatment and construction sequences etc. • 2nd stage submission normally includes the layout of vertical elements, formation of bulk excavation, proposed formation levels, structural details of lateral system and construction sequence according to the approved 1st stage submission. Basically, all essential elements in 1st Stage plans are included in the 2nd Stage submission. • Consent for 2nd stage ELS works will only be granted after the satisfactory submission of Form BA14 and record plan for vertical element and grouting works, if any. After the acknowledgement of the Form BA14 for vertical element, minor amendments of the proposed formation levels (raise or lower), revision or additional of trench excavations within the cofferdam always require to suit the design development. These revisions could be well justified with 2nd stage ELS amendment submissions.	works, including subsequent amendments of the revised excavation levels if required, were approved in the 2nd Stage ELS plans. Amendment submission to the 1st Stage ELS plans for the revised excavation levels would not be necessary after BD's acknowledgement of the Form BA14 and the record plan of vertical pile wall elements.

	Does RSE need to submit 1st Stage ELS amendment as well for these changes after the approval of 2nd Stage ELS amendments and submit a revised pile wall record plan to show the revised proposed formation level whilst the pile toe levels still remain unchanged before consent application?	
	Item raised by HKIS	
5	**<u>Fire Separation between Mail Room and Club House</u>** For a mail room to be located inside a residential club house as illustrated below, is it necessary to provide fire barrier to separate the mail room from the club house? ATTACHMENT 03  LAYOUT DIAGRAM DRAFT(A4) (05-01-2018)	BD advised that mail room and club house would be considered as different use and should be separated by fire barrier in accordance with Clause C7.1 and Table C1 of the FS Code.

	Item raised by AAP	
6	**Size of Utility Platform (UP)** UP is encouraged in residential building as green feature under JPN 2. However, the maximum area can be exempted for such platform including portion of such platform per residential unit is 0.75m^2 only. Thus, the floor space of most UP in new residential/composite buildings would just meet the minimum 1.5m^2 as required by para. 1(b)(iv) of Appendix A of JPN 2. In practice, various features at external façade in particular AC platform would further make the UP becoming narrow in shape. In such case, the door swing of the French door would further reduce the usable space of the UP enjoyed by the occupants. Since there is already a 10% GFA cap for the exemption area under the GFA concession policy, the control of building bulk is thus safeguarded. We suggest that the limit of exempted area for UP should be re-visited.	BD advised that the size of UP was determined based on its designed function and should be irrespective of the unit size. The reduction of GFA concession for UP in 2011 was one of the recommendations proposed by the Council for Sustainable Development (SDC) after a public engagement exercise aiming to address the public concerns on excessive building bulk resulted from provision of GFA concessions. Any proposed amendments to SDC's recommendations should revert to the SDC for deliberation.
7	**Follow-up on Setback areas under PNAP APP 132 and Building Set Back Alternative Approach** Item 6 of ADF 4/2017 held on 11.8.2017 confirmed that set back required under OZP could be counted towards the setback provided under PNAP APP 132. Similar to the above, it is our understanding that when the proposed	BD confirmed that the understanding was correct provided that the requirements under both PNAP APP-132 and APP-152 could be met.

	building setback for building sites follows the Alternative Approaches under Appendix E of PNAP APP-152, the 15% full height set back can also be counted towards the setback under para 3 of PNAP APP 132, provided that all other conditions under both PNAP APP 132 and SBD Guidelines can be complied. We wish to know if our understanding is correct.	
8	**<u>Centralized Processing of Plans</u>** We understand that some issues of building proposals might need to be discussed in Building Committee (BC) meetings. However, the decisions on the need to go through BC meeting are usually come very late (say 1 or 2 weeks before submission due date) which rendered no sufficient time to submit the case for BC discussion. The plans thus will be disapproved without the chance of knowing the decision of the issues. We wonder if there is a mechanism to determine the necessity of BC discussion on particular issues in the building proposal at the earlier days of the processing time, say before the 30th day of submission, such that adequate time can be allowed for the BC I preparation / meeting.	BD encouraged AP/RSE making use of the mechanism of pre-submission enquiry and conference at an early stage to identify complicated or controversial issues so as to facilitate plan processing. In addition, AP/RSE should provide sufficient documents and supporting information by making reference to Appendices A and E of PNAP ADM-2, especially for issues involving inputs from other government departments such that timely referral could be made by BD.
9	**<u>Utility/Store Room adjacent to Domestic Kitchen</u>** Some members reported that the maximum dimension of utility/store room of not more than1.6m was required by BD recently.	BD advised that there had been no change in the policy towards store / utility room in domestic unit since the discussion vide ADF 5/2014.

	However, we understand from previous ADF discussions that there is no such requirement on the maximum dimension of utility/store room. We wish to know if BD's practice has been changed.	BD would consider the proposal on case basis as discussed in ADF 5/2014. In general, the size of the utility / store room should commensurate with that of the unit.
10	**<u>Provision of Surface Channel with Rainwater Outlets</u>** Members reported that in some projects, case officer required provision of surface channel with 2 rainwater outlets even though a 150mm high kerb is provided at the doorway where the level difference between external and internal areas is less than 150mm. We believe such requirement does not in line with the spirit of PNAP APP-125. It is our view that when there is a 150mm kerb at a doorway leading to a roof, provision of service channel with 2 rainwater outlets right outside the door is not necessary. The 150mm kerb already serves the purpose of preventing the ingress of rainwater, and its function is the same as the 150mm level difference between internal floor and external ground or adjoining flat roof. We wish to know BD's view.	BD advised that according to para.4 of PNAP APP-125, the provision of a kerb having a total height of 150mm above the adjoining roof or external ground could also be considered as meeting the requirements under B(C)R 35 or 49(1) and as an alternative to the design criteria as stated in para. 3 of the PNAP. *[Post-meeting notes: Members further enquired if surface channel and rainwater outlets should be required at the exterior bottom end of a ramp. BD advised that each case would depend on its own situation whether or not surface channel and rainwater outlets are required.]*
	AOB Items	
11	**<u>PNAP APP-96 - Registration of General Building Contractors and Specialist Contractors</u>** (Item raised by HKIE)	

	Paragraph 10 of Appendix A of PNAP APP-96 states that "Basement works: Excavation for basements, construction of basement walls, slabs and drains, which do not form part of pile caps fall within the scope of works of the RGBC". It is commonly understood that this is referred to basement works above the pile caps level, and the pile caps/footing could be carried out by RSC(F). It is very common that the lowest floor of basement structures (associated slabs and beams) are attaching to the pile cap/footing as so to minimize the volume of excavation for environmental friendly design and construction. As these slabs and beams will form an integral part of the base flooring for water proofing, these element shall be constructed together with the pile caps/footings. PNAP AAP-96 also says that AP/RSE/RGE are expected to make their professional judgment on selection of appropriate category of Registered Contractors for BA's consideration (para. 9 of App A. refers). Therefore, we would like to clarify whether the RSC(F) could be appointed to carry out the associated structural slabs and beams which are attaching to the pile caps/footings to form an integral base of the basement. Attached please find the relevant PNAP and sketches of part plans and sections showing a typical basement structure including pile caps/footing and the attached slabs and beams.	BD advised that as the tie beams and individual caps/footings as shown in the attached plans formed an integral part of the foundation system, RSC(F) would be allowed to construct these beams and slabs. Other situations, such as raft and combined caps associated with basement beams and slabs, should be considered on case basis. Furthermore, such arrangement should be clearly indicated during consent application and relevant supervision requirements should be followed accordingly.

	PNAP APP-96.pdf Layout Plan and Section.pdf	
12	**<u>Provision of Reduced Size Light Well to Enhance Natural Ventilation</u>** (Item raised by BD) BD shared with members on the findings of a recent study on the ventilation performance of reduced size light well.	BD advised that CFD analysis indicated that ventilation performance of reduced size light well (1:18) with bottom opened would be generally better than the standard size light well (1:6). In order to allow more design flexibility, BA would give favorable consideration to disregard the reduced size light well from GFA calculation if openable window facing the reduced size light well was provided as enhancement for internal toilet and the following criteria were met: (i) The light well should be vertically uncovered and unobstructed; (ii) Any horizontal dimension would be not less than 1.5m; (iii) The horizontal area of light well would be not less than $1m^2$ for every 18m of the mean height of the walls enclosing the light well; (iv) An opening not less than the size of top opening and having a minimum dimension of 1.5m should be provided at the bottom of the light well for providing ventilation through draught effect; (v) Other than maximum 100mm projecting window heads/sills, no projection or unenclosed pipeworks would be installed inside

		the light well; (vi) The openable windows into the light well should have 1/10 of the floor area of the toilet/bathroom; (vii) There should be no exhaust outlet (other than exhaust from the relevant toilet/ bathroom) / flue aperture / other pollutant discharging into the light well. No fresh air intake for mechanical ventilation should be drawn from the reduced size light well; and (viii) The light well should be designated as common part in the DMC which should specify that no combustible material should be installed inside the light well. Such DMC should contain binding and enforceable conditions for the control, management and maintenance of the light well. Where no DMC would be in force for a development, such designation should be incorporated into the Sales and Purchase Agreement, Assignment, Tenancy Agreement or conveyancing document such that the future owners or tenants would be aware of their rights and liabilities. Moreover, BD drew members' attention to the following points: (i) The accepted reduced size light well should not be construed as fulfilling the open air requirements. (ii) Windows facing into such reduced size light well should not be included in the aggregate window areas for the purpose of B(P)R 36(2). Should application for modification of B(P)R 36 being

		required, the criteria and requirements in the PNAP APP-98 (for toilets and/or bathrooms in domestic buildings) or PNAP ADM-2 (for toilets and/or bathrooms in non-domestic or hotel premises) should still be complied with. As a start, each case would be referred to BC for consideration on case merits to gain experience and gauge feedback on the matter.
13	**<u>Door Locks to Fireman's Lift Lobby</u>** (Item raised by HKIA) While Clause B13.2 of the FS Code specified the requirements of electrically operated locking device installed to exit door, Clause D11.4 also specified that every lobby to a fireman's lift should have direct access, <u>without any obstruction and lockable door</u>, to a protected exit. In this connection, please clarify if Clause B13.2 is also applicable to fireman's lift lobby.	BD would follow up on the issue with FSD accordingly. *[Post-meeting notes: As subsequently clarified with Kelvin IP of HKIA, this item was withdrawn.]*
14	**<u>PNAP ADM-8</u>** (Item raised by BD) Further to the promulgation of revised PNAP ADM-8 in July 2016 encouraging paperless submission of Part II structural calculations in CD/DVD format, it is estimated that more than 1,600,000 pages of paper have been saved. Statistics however indicates that the overall percentage of submissions adopting such new measure is still on low side. In this	Members noted and would assist to facilitate BD's review.

	regard, BD would like to conduct a review to study the reasons/difficulties for not adopting the paperless submission.	

Registration of General Building Contractors and Specialist Contractors

This practice note covers solely the registration of general building contractors and specialist contractors. Minor works contractors registration is separately explained in Practice Note for Authorized Persons, Registered Structural Engineers and Registered Geotechnical Engineers APP-148.

2. Sections 8, 8A, 8B, 8C, 8D, 8E and 8F of the Buildings Ordinance (BO) govern the current contractors registration system. The prime objective of the system is to ensure that only contractors who are able to perform their duties and responsibilities in a competent manner as well as fully conversant with the relevant statutory requirements and the current building control system are registered and allowed to carry out building works and street works.

Registers of Contractors

3. Under section 8A of the BO, there are three contractors' registers, namely the general building contractors' register, the specialist contractors' register and the minor works contractors' register, being kept by the Building Authority (BA). In respect of the specialist contractors' register, sub-registers of different categories of specialized works are maintained.

4. The names of the contractors in the registers are published annually in the Gazette. Relevant registration particulars of the contractors, including the name of the contractor, the name of its Authorized Signatory as referred to in paragraph 10(a) below, its registration number and the expiry date of its registration are also posted on the Buildings Department website.

Categories of Specialized Works

5. Section 8A(2) of the BO empowers the BA to designate by notice in the Gazette categories of building works as specialized works that are required to be carried out by registered specialist contractors (RSC). Currently, there are five categories of works designated as specialized works. They are:

(a) Demolition works;

(b) Foundation works;

(c) Ground investigation field works;

(d) Site formation works; and

(e) Ventilation works.

/Scope…..

Scope of Works

6. Registered general building contractors (RGBC) may carry out general building works and street works which do not include any specialized works in the designated categories while RSC may only carry out specialized works in their corresponding categories in the sub-registers in which they have been entered. RGBC may also carry out all types of minor works as stipulated in Part 2 of Schedule 1 of the Building (Minor Works) Regulation (B(MW)R) while RSC may only carry out the minor works as specified in section 28(1)(b) to (e) of the B(MW)R according to their corresponding categories on the sub-registers in which they have been entered.

7. A building owner is required to appoint contractors from the appropriate register corresponding to the category of building works to be carried out. The scope of works of RGBC and that of RSC in the demolition, foundation, ground investigation field works, site formation and ventilation categories are detailed at Appendix A.

8. To facilitate the operation of the construction industry, certain general building works are permitted to be carried out by more than one category of contractors. Detailed guidelines are also provided at Appendix A.

Requirements for Registration

9. Under section 8B(2) of the BO, an applicant for registration as an RGBC or RSC must satisfy the BA on the following aspects:

(a) if it is a corporation, the adequacy of its management structure;

(b) the appropriate experience and qualifications of its personnel;

(c) its ability to have access to plant and resources; and

(d) the ability of the person appointed to act for the applicant for the purposes of the BO to understand building works and street works through relevant experience and a general knowledge of the basic statutory requirements.

Authorized Signatory, Technical Director and Other Officer

10. In considering each application, the BA is to have regard to the qualifications, competence and experience of the following key personnel of the applicant:

(a) a minimum of one person appointed by the applicant to act for the applicant for the purposes of the BO, hereinafter referred to as an 'Authorized Signatory' (AS);

(b) for a corporation – a minimum of one director from the board of directors of the applicant, hereinafter referred to as a 'Technical Director' (TD) who is authorized by the board to:

/(i)…..

(i) have access to plant and resources;

(ii) provide technical and financial support for the execution of building works and street works; and

(iii) make decisions for the company and supervise the AS and other personnel

for the purpose of ensuring that the works are carried out in accordance with the BO; and

(c) for a corporation which appoints a director who does not possess the required qualification or experience as TD to manage the carrying out of building works and street works - an 'Other Officer' (OO) or an AS authorized by the board of directors to assist the TD.

11. In addition to the above key personnel, the applicant is also required to demonstrate that it has employed appropriate qualified staff to assist the applicant and the above key personnel to execute, manage and supervise the building works and street works.

Persons Eligible to be the AS, TD or OO

12. The following persons are eligible to become the AS and TD of the applicant:

(a) If the applicant is an individual, the applicant is the only person eligible to act as the AS.

(b) If the applicant is a partnership, any partner appointed by all the other partners is eligible to act as the AS.

(c) If the applicant is a corporation, a suitable person appointed by the board of directors is eligible to act as the AS, whereas the TD must be a director appointed under the Companies Ordinance and appointed by the board of directors to perform the role as TD.

13. A person is permitted to take up the roles of the AS as well as the TD of a corporation at the same time provided that he meets the requirements of both the AS and TD.

14. If an OO is required, he is permitted to assist one TD only. In such case, the AS is not permitted to take up the role of an OO.

/Appointment…..

Appointment of AS/TD/OO for Registered Contractors

15. To ensure that adequate supervision and proper management are provided for carrying out of building works and street works and to avoid possible situations of conflict of interest, persons who have been accepted by the BA as the AS/TD/OO for a registered contractor will not be accepted as the AS/TD/OO for another contractor simultaneously for its registration, except under the special sharing arrangement for holding and subsidiary companies.

Contractors Registration Committee

16. Contractors Registration Committees (CRC) are independent bodies appointed by the BA under section 8 of the BO. The function of a CRC is to assist the BA in considering applications for inclusion in the contractors' registers by:

(a) examining the qualifications of applicants;

(b) inquiring as the CRC considers necessary to ascertain whether an applicant has the relevant experience;

(c) conducting interviews with the applicants and their key personnel; and

(d) advising the BA to accept, defer or reject applications for inclusion in the relevant register.

17. Under section 8B(10) of the BO, the BA must not include the name of an applicant in the register of general building contractors or specialist contractors unless the relevant CRC so recommends. Besides, the BA may seek advice from the relevant CRC in respect of applications for addition of AS/TD/OO to a registered contractor.

18. In processing applications for renewal and restoration of names to the registers, the BA may also seek advice from the relevant CRC under section 8C(4) and section 8D(3) respectively of the BO.

Composition of a CRC

19. Under section 8(3) of the BO, a CRC appointed to assist the BA in considering applications for inclusion in the register of general building contractors shall consist of:

(a) the BA's representative;

(b) 3 persons, 1 of whom is nominated by each of the Architects Registration Board (ARB), the Engineers Registration Board (ERB) and the Surveyors Registration Board (SRB) from the lists of authorized persons (AP), registered structural engineers (RSE) and registered geotechnical engineers (RGE);

/(c) …..

(c) 3 persons nominated by The Hong Kong Construction Association Ltd.;

(d) 1 person nominated by The Hong Kong E & M Contractors' Association Limited; and

(e) 1 person selected by the BA from among persons nominated by such bodies as the BA may think fit.

20. Under section 8(3A) of the BO, a CRC appointed to assist the BA in considering applications for inclusion in the register of specialist contractors shall consist of:

(a) the BA's representative;

(b) 3 persons, 1 of whom is nominated by each of the ARB, the ERB and the SRB from the lists of AP, RSE and RGE;

(c) 3 persons nominated by The Hong Kong Construction Association Ltd.; and

(d) 2 persons selected by the BA from among persons nominated by such bodies as the BA may think fit.

21. Under section 8(6) of the BO, the members of the committee will elect the Chairman from the members of the committee other than the BA's representative.

Application Procedures and Requirements

22. Details of the application procedures and requirements for inclusion of names in the contractor registers, renewal and restoration of registration are provided in Practice Note for Registered Contractors 38.

(AU Choi-kai)
Building Authority

Ref. : REG/RC/13/3

This PNAP is previously known as PNAP 214
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This revision September 2013 (AD/NB1) (para. 10(j) of Appendix A added)

Appendix A
(PNAP APP-96)

Scope of Works of Registered General Building Contractors and Registered Specialist Contractors

Registered General Building Contractor (RGBC)

The RGBC is qualified under the BO to carry out any building works and street works which are not designated by the BA as a category of specialized works.

Registered Specialist Contractor in the Demolition Works Category (RSC(D))

2. All demolition works to which the Building (Demolition Works) Regulations apply are specialized works of the demolition works category unless all the following circumstances exist:

(a) The building to be demolished is not in Scheduled Area Number 1.

(b) No part of the building to be demolished exceeds 10m above adjacent ground.

(c) No structural element to be demolished has a clear span exceeding 6m or a cantilever span exceeding 1m.

(d) No part of the building to be demolished is in pre-stressed concrete construction.

(e) No part of the building to be demolished is an earth-retaining structure with retaining height exceeding 1.5m.

(f) There are no other buildings within 5m from the building to be demolished.

Registered Specialist Contractor in the Foundation Works Category (RSC(F))

3. All foundation works, except where the penetration depth of the foundation element does not exceed 3 m, are specialized works of the foundation works category.

Registered Specialist Contractor in the Ground Investigation Field Works Category (RSC(GIFW))

4. The scope of works for RSC(GIFW) is as follows:

(a) all exploratory drilling, boring, excavation and probing of land for obtaining information on ground conditions, and includes the installation of instrument, sampling, field testing in boreholes, and any other associated site operations;

(b) pre-drilling for foundation works;

/(c) …..

(c) proof-drilling for cast-in-place concrete foundation, mini-piles and socketed H-piles; and

(d) field testing of ground, the loading capacity of which has been improved by ground treatment.

5. The following list of works, not exhaustive, are examples of works which are required to be undertaken by RSC (GIFW):

Types of Works	Details of Works
Excavation	Trial pits, trial trenches, slope surface stripping.
Boreholes	Hand auger boring, corehole drilling, light cable percussion boring, rotary open hole drilling, rotary core drilling.
Sampling	Disturbed samples, U76 samples, U100 samples, split barrel standard penetration test samples, thin-walled piston samples, continuous soil and rock samples, rotary core samples, Mazier samples, block samples, groundwater samples and vibro-coring.
Instrumentation	Installation of instruments e.g. piezometers, standpipes, tensiometers, piezometer buckets, inclinometers, extensometers.
Field Testing in Boreholes	Standard penetration test, vane shear test, permeability tests, packer (water absorption) test, plate test, pressuremeter test, borehole discontinuity survey (impression packer survey) and cone penetration test.
Cast-in-Place Concrete Foundation	Pre-drilling to determine rockhead level, core-drilling to verify quality of founding stratum.
Ground Treatment	Field testing to verify load carrying capacity of treated ground.

Registered Specialist Contractor in the Site Formation Works Category (RSC(SF))

6. All site formation works are specialized works of the site formation category, unless all the following circumstances exist:

(a) The maximum gradient across the lot from boundary to boundary is not more than 15 degrees.

(b) The overall gradient of an area bounded by lines 10m outside the lot boundary in any direction is less than 15 degrees.

(c) There is no slope within the area 10m outside the lot boundary steeper than 30 degrees or higher than 1.5m.

(d) There is no retaining wall or terrace wall, either within the lot or within the area 10m outside the lot, which is higher than 1.5m.

/(e) …..

(e) No retaining walls or terrace walls higher than 1.5m are to be constructed.

(f) No slopes steeper than 30 degrees nor higher than 1.5m are to be constructed.

(g) The combined height of retaining wall and slope to be constructed does not exceed 1.5m.

Registered Specialist Contractor in the Ventilation Works Category (RSC(V))

7. All ventilating system works to which the Building (Ventilating Systems) Regulations apply are specialized works under the ventilation category.

Works Which May be Carried out by More Than One Category of Contractors

8. It is difficult to give an exhaustive or absolute demarcation among the scope of works of different categories of contractors. Whether the contractors in a category possess the recognized competence, experience, expertise, plant and resources in carrying out the proposed works should be the primary consideration of the AP/RSE/RGE. Additional guidelines in paragraph 10 below are provided for reference.

9. In situations not covered by any of the published guidelines and when unique site characteristics call for special consideration, the AP/RSE/RGE of the proposed works are expected to make professional judgment according to the aforesaid principles on the selection of the appropriate category of contractors. Should such circumstances arise, the BA will consider proposals from the AP/RSE/RGE on a case by case basis.

10. Additional guidelines on the demarcation of different scope of works among categories of contractors are as follows:

(a) Temporary Works

RGBC, RSC(F), RSC(SF) and RSC(D) may generally carry out temporary works which are associated with the execution of the respective types of general building works and specialist works. These temporary works include hoarding, covered walkways, sheet piling, soldier piling, pipe piling, shoring, rock filled slopes for demolition, protective and precautionary measures.

(b) Pile Cap Works

Pile cap works may be carried out either by RGBC or RSC(F). These contractors may also carry out the associated temporary works, such as excavation and lateral support works, which are necessary for the construction of the pile caps.

(c) Basement Works

Excavation for basements, construction of basement walls, slabs and drains, which do not form part of pile caps fall within the scope of works of the RGBC.

/(d) …..

(d) Foundation Works

Diaphragm walls should be carried out by RSC(F) when the penetration depth exceeds 3m. The penetration depths of foundation elements are generally measured from the ground level which may be existing or newly formed. Spread footing and raft foundation works may be carried out by either RSC(F) or RGBC.

(e) Landscape and Street Works

On grade roads, streets, landscape features, etc., should generally be carried out by RGBC. Such works which do not involve the construction of a roof or foundation, and drains associated with landscape works in the periphery of buildings not forming part of the permanent drains of buildings may also be carried out by RSC(SF).

(f) Retaining Structures

Retaining structures involving diaphragm walls, bore-piles, caissons or other foundation works, excluding those mentioned in paragraph 10(a) above should be carried out by RSC(F).

Appendix B of PNAP APP-18 stipulates that mini piles are not to take lateral loads and therefore not commonly used in site formation works. Its construction could be up to 400mm diameter and should therefore be carried out by RSC(F) or if less than 3m deep, by RGBC but not RSC(SF).

(g) Dredging Works

The general meaning of dredging in construction involves taking up of mud from sea or riverbeds that should generally be classified as site formation works. If the said works fall within the scope of works as set out in paragraph 6 above, it should be carried out by RSC(SF), otherwise, it should be carried out by RGBC.

(h) Reclamation Works

Reclamation works usually involves the forming of land, construction of seawalls or retaining structures and should be considered as site formation works to be carried out by RSC(SF).

(i) Trial Pit Works

Trial pit works should normally be carried out by RSC(GIFW). Other registered contractors except RSC(V) may also carry out such works if the trial pits are excavated solely for the following purposes:

(i) exposing existing shallow foundations;

/(ii) …..

(ii) locating utilities, underground structures and installations;

(iii) verifying the density of the backfill soil behind retaining structures (Note: insitu-density test has to be carried out by a laboratory which is accredited by the Hong Kong Accreditation Service for performing such test); and

(iv) other studies not involving the investigation of ground conditions or soil/rock descriptions, e.g. archaeological studies.

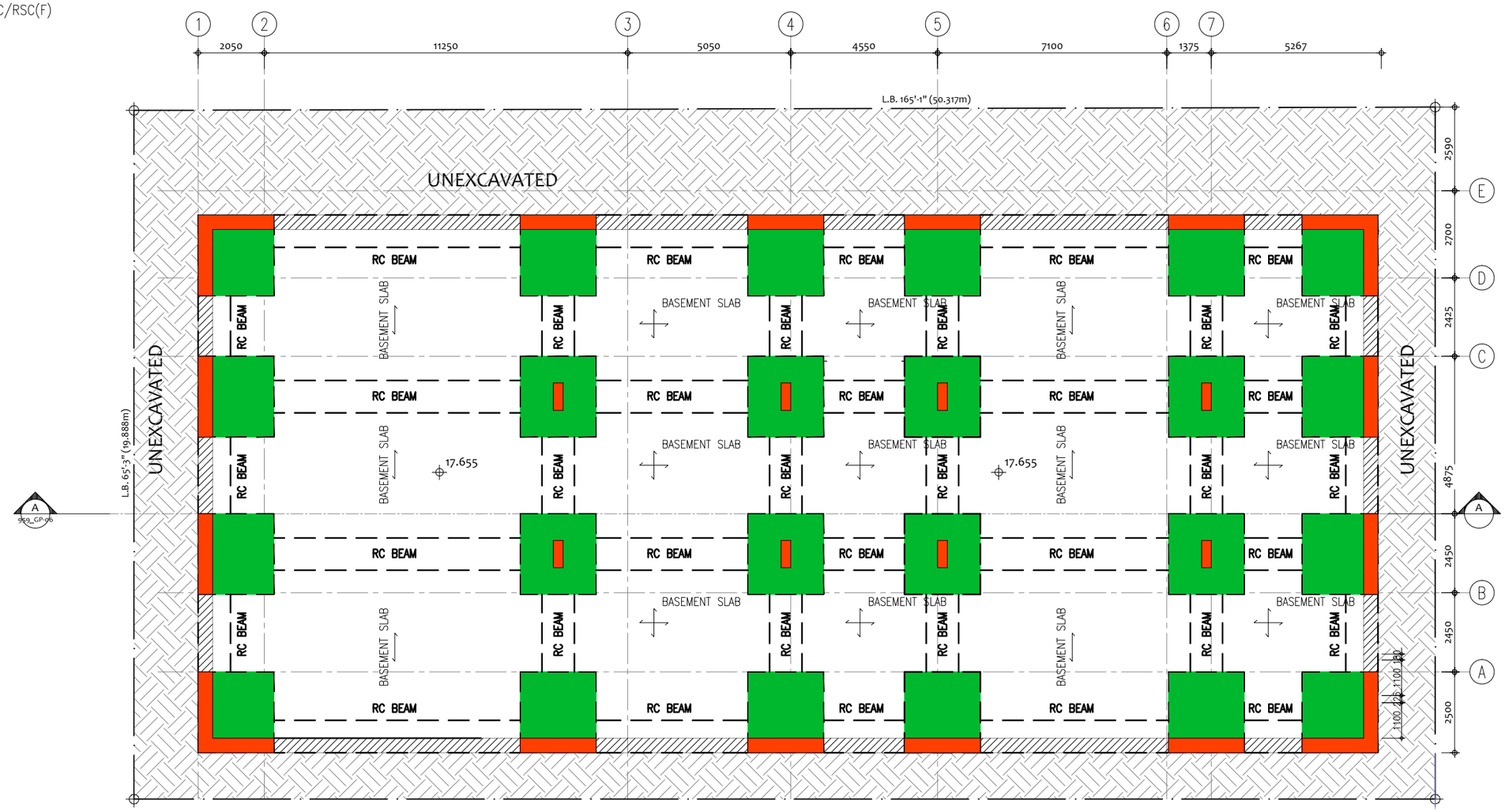
(j) Installation and Inspection of Fire Dampers

Fire dampers may be installed either by RGBC or RSC(V). For fire dampers installed by RGBC, RSC(V) should be engaged to inspect and certify that the fire dampers are in safe and efficient working order pursuant to Clause E8.3 of the Code of Practice for Fire Safety in Buildings. For fire dampers installed by RSC(V), the same RSC(V) could inspect and certify the fire dampers. Requirements on the inspection and certification of fire dampers by RSC(V) are provided in PNAP APP-13.

(9/2013)

LEGEND :

- FOOTING/PILE CAP BY RGBC/RSC(F)
- COLUMN/WALL BY RGBC
- BASEMENT WALL BY RGBC
- ASSOCIATED STRUCTURES
- 17.655 STRUCTURAL FLOOR LEVEL



FOUNDATION LAYOUT PLAN

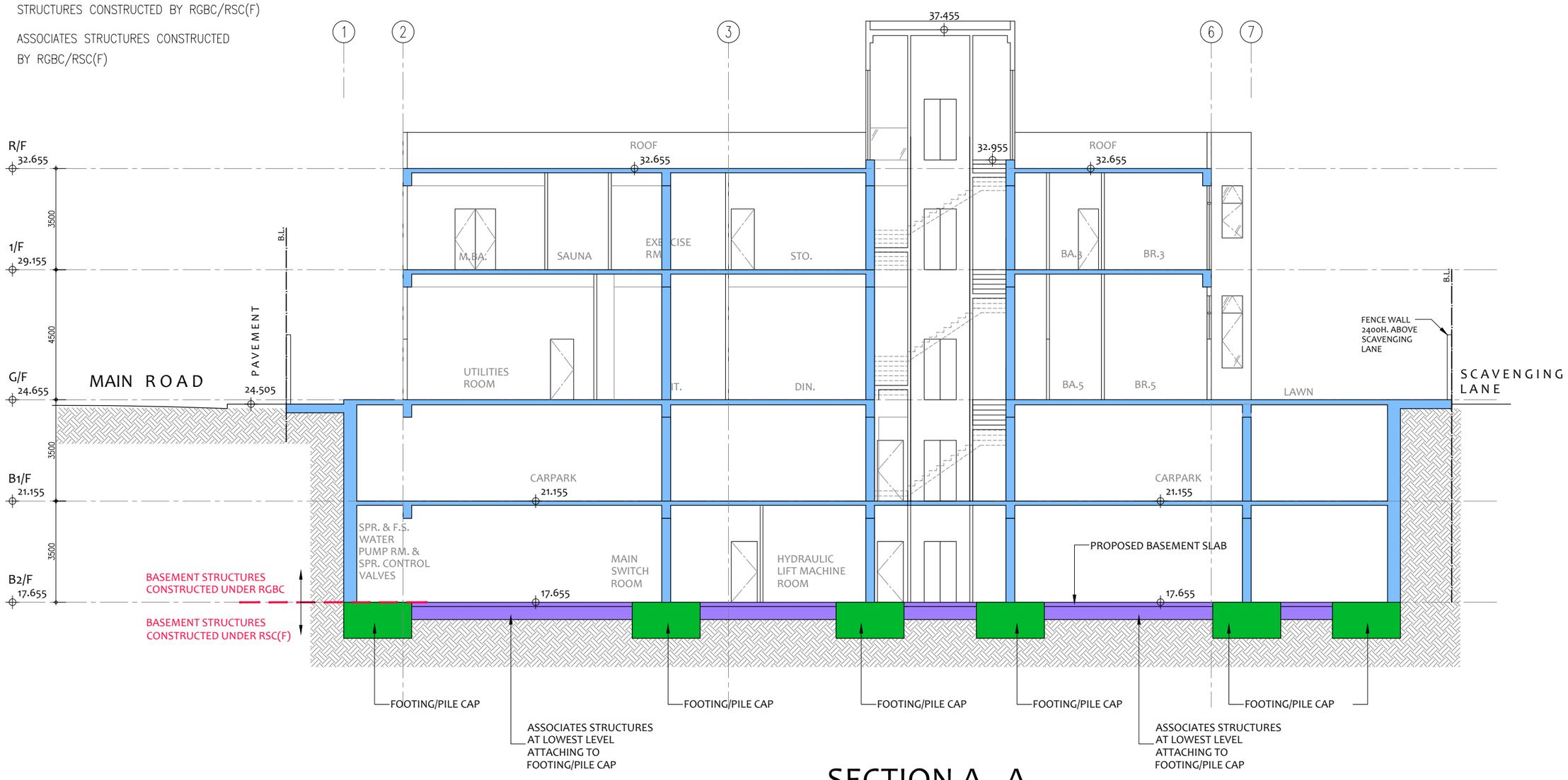
SCALE 1 : 100

LEGEND :

STRUCTURES CONSTRUCTED BY RGBC

STRUCTURES CONSTRUCTED BY RGBC/RSC(F)

ASSOCIATES STRUCTURES CONSTRUCTED BY RGBC/RSC(F)



SECTION A - A

SCALE 1 : 100