

Candidate Number :

Seat Number :

HKIA/ARB Professional Assessment 2020

Paper 7 Building Design

19 November 2020
9:00 am – 3:00 pm (6 hours)

Kowloonbay International Trade & Exhibition Centre (KITEC)
Kowloon Bay

ONE COMPULSORY QUESTION

100 Marks

General Notes:

Format	Examination paper, both A3 plain and A3 tracing, are provided. Use as appropriate.
Presentation	Black ink line drawings are preferred. You may use colour for clarity. Do NOT use RED.

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Attachment 1	LOCATION PLAN	(1:1000)
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Attachment 3	SITE SECTION	(1:200)

1 PROBLEM STATEMENT

You, as the Architect, are commissioned by an Non-governmental Organisation (NGO) to design an **Activities Training Camp**, a destination to promote sports and leadership training youth, business groups as well as families. The NGO is granted a plot of land in Sai Kung by the waterfront. The facility is aimed to offer users full day activities programmes with supervision of qualifying staffs. It will cover both outdoor and indoor venues for training. Overnight accommodation and other axillary support will also be provided for extended stay of users.

Your task is to create a sensible solution for the CAMP to be shared among visitors and staffs. Being at waterfront, the design should fit properly in the site context and capture the natural merits for the enjoyment of users. It should also be sensitive to barrier free access.

Please prepare a schematic design for presentation to the Client's representatives. It should satisfy generally all functional and statutory requirements. It should also show an integrated solution that incorporates preliminary provisions and requirements for building structure, building services, utilities, etc.

2 SITE DESCRIPTION

Context

The Site is a hypothetical rural site along the waterfront. There is a gentle slope with level difference. It is served by public street A with more than 6m width.

Please see Location Plan (Attachment 1), Site Plan (Attachment 2) and Site Section (Attachment 3).

Vehicular Access

No vehicular access is required. All parking will be allocated off site.

Environmental Factor

Traffic noise from all roads is considered insignificant.

3 DESIGN BRIEF

3.1 Development Requirements

Site	Area 2,400 m ² (approximate)
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Zoning	CDA
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Permissible GFA under lease	unrestricted
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Permissible Plot Ratio and Site Coverage	Requirements under the Buildings Ordinance shall be complied with.
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Building Height	Not higher than +40mPD (main roof)
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Barrier Free Access	Statutory requirements shall be complied with.
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Lift(s)	Passenger lift(s) shall be provided as appropriate (shaft size minimum 2400mm X 2600mm)
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	1 no. of service lift shall be provided (shaft size minimum 2600mm x 2800mm)
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3.2 Design Requirements

The CAMP is to cater for visitors in different group sizes for highly programmed activities. Overall design of the complex should promote physical training, communal interaction, bonding and memorable experience. Most users would probably be new comers to the site arrived by coach buses. They will be dropped off at an existing coach buses parking lot outside the side boundary before entering the camp premises. As part of the welcoming experience, they will register at the front desk with spacious waiting area before being led to assembly rooms for camp introduction and general information briefing. They will then check in to the individual rooms at the overnight accommodation. There is a canteen space serving meals for the users and on site staffs. A feasible routing for the back-of-house facilities is required.

Throughout the complex, navigation from one activity venue to another should be straight forward. Your design is encouraged to create a **landmark** (either indoor or outdoor) as a physical reference point for all the activities. This landmark can also be a place to remember where group photo shooting can take place. As the site is located by the waterfront, capturing sea-view, relating indoor to outdoor facilities and promoting cross-ventilation will be considered as design merits.

To deal with the site with gentle slope, minimal excavation or land-filled will be the key for site formation cost effectiveness. Your planning should be sensible to provide easy access of users. Lift can be considered however users should be encouraged to use steps / staircases to move in between levels.

3.3 Accommodation Schedule

	Gross Floor Area (m ²)	Remarks
General Facilities		
Main Entrance	As appropriate	
Registration Reception & Waiting Area	100	1 no.
Assembly Room	100	2 nos.
Administration office	50	1 no.
Meeting Room	25	1 no.

3.3 Accommodation Schedule (cont'd)

	Gross Floor Area (m ²)	Remarks
General Storage	50	1 no.
Canteen with Kitchen facilities	270	1 no.
Bathroom / Changing Room	200	distribute sensibly depending on the design
Indoor Facilities		
Multi-Sports Hall	27 m X 18m (7.6 height clearance)	1 no.
Table Tennis Room	80	2 nos.
Music Room	80	2 nos.
Canoe / Water Sports Storage	200	1 no. (easily accessible from waterfront)
Overnight Accommodation		
For Visitors		
10 persons Suite with bathroom	80	8 nos.
2 persons suite with bathroom	40	8 nos.
For Staffs		
Quarter with bathroom and pantry	40	8 nos.
Guard House with Accommodation	25	1 no.
Outdoor Facilities		
BBQ area	150	1 no. (either on roof or on ground)
Outdoor Activities Zone	200	1 no. (either on roof or on ground)

3.3 Accommodation Schedule (cont'd)

	Gross Floor Area (m²)	Remarks
Building Services		
Electrical Provisions		
Transformer Room (Tx Rm)	8m x 6m	<ul style="list-style-type: none"> • 1 no. (preferably on ground or on 1/F with separate staircase)
High Voltage Switch Room (HV Switch Rm)	6m x 5m	<ul style="list-style-type: none"> • 1 no. (preferably adjacent to Tx Rm)
Low Voltage Switch Room (LV Switch Rm)	6m x 5m	<ul style="list-style-type: none"> • 1 no. (preferably adjacent to or on top of HV switch room)
Other Provisions	As appropriate	
Other Facilities		
Refuse Collection Area	10	
Means of Escape	As appropriate	

4 SUBMISSION REQUIREMENTS

Site Plan (1:200)	Show site development including access point(s) for both pedestrian and vehicular traffic
Plan of Ground floor (1:200)	<ul style="list-style-type: none">• All required spaces according to Accommodation Schedule, with annotation• Major structural elements• Overall and critical dimensions• Appropriate annotation• Site boundary, adjacent streets and structures• Means of Access for Firefighting & Rescue
Plan of First floor Plan(s) of other floor(s) (1:200)	<ul style="list-style-type: none">• All required spaces according to Accommodation Schedule, with annotation
Section (A minimum of ONE at 1:200)	<ul style="list-style-type: none">• Major structural elements• Overall and critical dimensions• Appropriate annotation• Floor to floor and other critical dimension• Relationship between elements of construction (<i>E.g. Interfaces and connections of building structure, building envelope, finishes, building services, and etc.</i>)
3-dimensional Illustration	Not compulsory
Calculations	<ul style="list-style-type: none">• The design is assumed to be in compliance with the relevant Buildings Ordinance and Regulations.• No calculation is required.

END OF PAPER





