

Candidate Number :

Seat Number :

HKIA/ARB Professional Assessment 2022

**Paper 7
Building Design**

17 November 2022
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.

Table of Contents

Page 2	1. PROBLEM STATEMENT	
	2. SITE DESCRIPTION	
Pages 3-6	3. DESIGN BRIEF	
Page 7	4. SUBMISSION REQUIREMENTS	
Attachment 1	LOCATION PLAN	(1:1000)
Attachment 2	SITE PLAN	(1:200)
Attachment 3	SITE SECTION	(1:200)
Attachment 4	VEHICULAR TURNING RADIUS	(1:200)

1 PROBLEM STATEMENT

Community Health Complex

You, as the Architect, are commissioned by the Department of Health (“The Clients”) to design a Community Health Complex for a local community. The Complex is envisaged to be a community hub for promoting health and wellness, and shall be comprised of two major components, namely,

- i) Community Clinic (“the Clinic”) for providing clinical services, and
- ii) Wellness Center (“the Center”) for raising public awareness on health and overall wellness by general public.

The **Center** should be inviting and inclusive. To that end, an outdoor multi-sensory garden shall be provided as a welcoming public open space. Nonetheless, the **Clinic** should be easily accessible but be properly segregated from the Center. Designated ambulance and general lay-by, ancillary transport facilities and E&M plantrooms should also be provided to the Complex.

Your task is to prepare a schematic design for presentation to the Clients. It should be a sensible solution satisfy generally all functional and statutory requirements yet possessing an architecturally pleasing identity. In addition, preliminary structural and building services provisions should be indicated.

2 SITE DESCRIPTION

Context

The Site is a hypothetical site located in an urban neighborhood. It is served by public Roads of more than 6m wide on two sides. While on the other two sides, the Site is abutted by a public park to the east and a rock slope of approximately 8m tall to the North.

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

Vehicular Access

Vehicular access shall be between points X and Y through Z.

Environmental Factor

For the purpose of this exam, there are no statutory requirements for environmental design such as Traffic noise, energy efficiency, etc. Your design (building disposition, etc) should still demonstrate awareness and sensibility to the site surroundings.

3 DESIGN BRIEF

3.1 Development Requirements

Site Area 3,500m² (approximate)

Zoning Government, Institution or Community (G/IC)

Permissible GFA under lease Unrestricted

Permissible Plot Ratio and Site Coverage Requirements under the Buildings Ordinance shall be complied with.

Building Height Not higher than +180mPD (main roof)

Site Vehicular Access Vehicular Access is required. Vehicular access shall be between points X and Y through Z.

Transport Facilities Refer to Para. 3.3(D) – Transport Facilities

Parking 3 nos. of private car parking spaces and 1 no. of accessible car parking space shall be provided within the site.

Barrier Free Access Statutory requirements shall be complied with.

Lift(s) provisions Refer to Para. 3.3(E) – Ancillary Facilities

3.2 Special Design Requirements

The **Wellness Center** shall be inviting and inclusive, while the **Clinic** should be properly segregated from the Wellness Center for public health reasons.

Certain parts of the Schedule of Accommodation should fulfil lighting and ventilation requirements as stipulated in the Building (Planning) Regulations. Please refer to Para. 3.3 for details. For the avoidance of doubt, the park to the east of the Site should be regarded as Government Land.

3.3 Accommodation Schedule

	Gross Floor (Sq.m)	Remarks
A. Community Clinic		
• Entrance Hall/ Waiting Area	150	Direct connection to Ambulance Lay-by and General Lay-by.
• Registration/shroff Office with Counters	30	
• Nurse Station	30	
• Dispensary (Drug store) with counters	50	
• Out-patient Consultation Room	15 each x 4 nos.	Comply with Building (Planning) Regulations - Natural Lighting and ventilation for office use
• Treatment Rooms	15 each x 2 nos.	
• Medical Storeroom	15	
• Patient Toilets	As appropriate	Male/Female/Accessible
• Staff Changing Room/Toilets	As appropriate	Male/Female/Accessible
• Staff Pantry	As appropriate	

B. Wellness Centre

• Reception Area	As appropriate	Community Center shall be easily accessible from General Lay-by but segregated from Clinic.
• Health Education Centre	150	Comply with Building (Planning) Regulations - Natural Lighting and ventilation for office use
• Multi-purpose Hall	300	Minimum clear headroom 8m
• Rehabilitation Gym	150	
• Function Rooms	80 each x 2 nos.	
• Cafeteria	50	
• Rehab Shop	50	
• General Office	50	Comply with Building (Planning) Regulations - Natural Lighting and ventilation for office use
• Toilets/Changing Room	As appropriate	Male/Female/Accessible

C. Outdoor Area

• Multi-sensory Garden	300	
• Roof garden	As appropriate	Connected to Accessible lift.

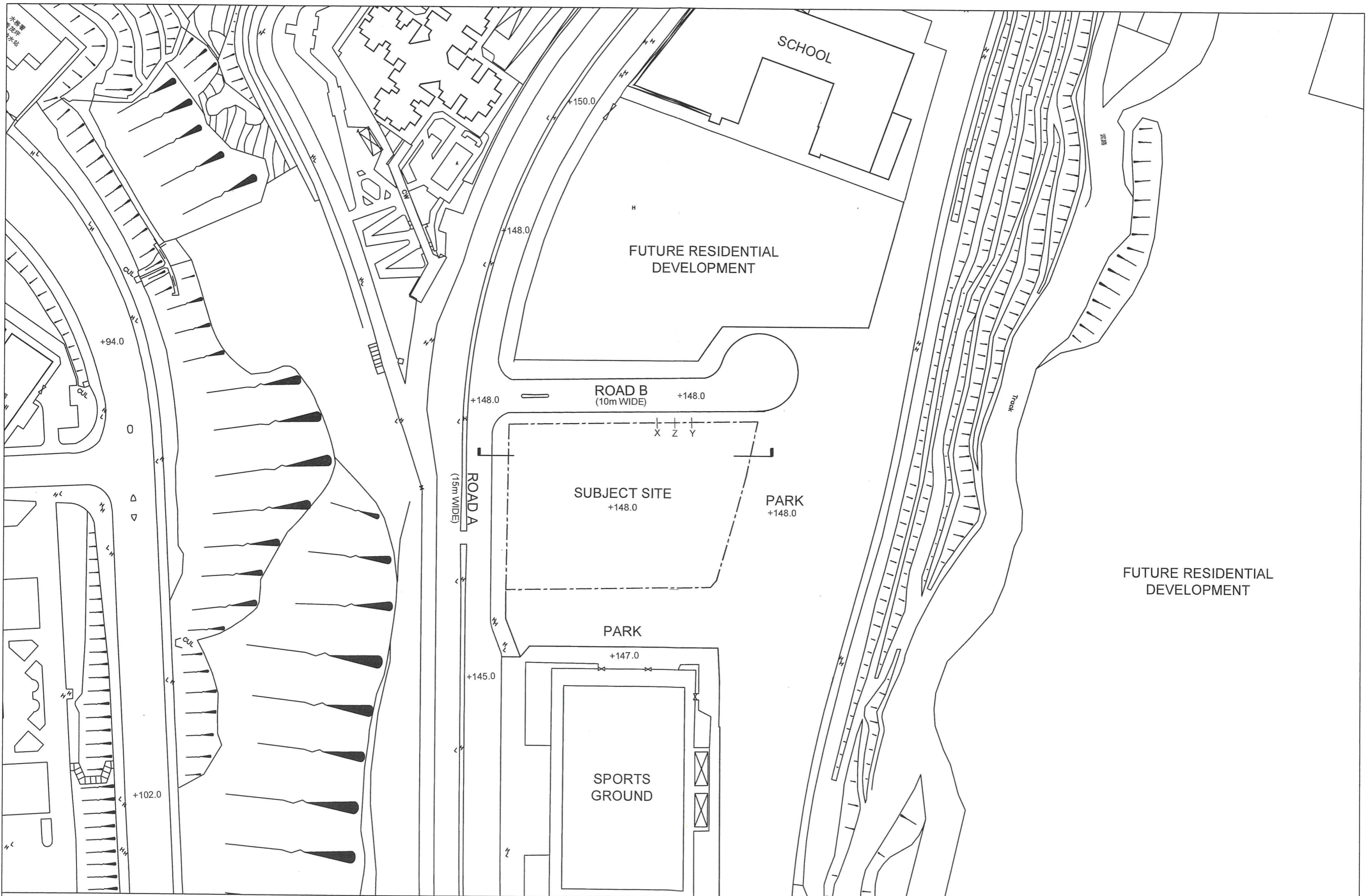
3.3 Accommodation Schedule (cont'd)

	Gross Floor Area (m ²)	Remarks
D. Transport Facilities		
• General Lay-by within site	1 no.	3.5m x 7m
• Designated Ambulance Lay-by within site	1 no.	3.5m x 7m
• Car Parking Spaces for staff	3 nos.	2.5m x 5m
• Accessible Car Parking space	1 no.	3.5m x 5m
• Loading/Unloading Bay	1 no.	3.5m x 9m
• Refuse Vehicle Parking	1 no.	5m x 12m if under cover; Direct connection with Refuse Room and Clinical Waste Room.
E. Ancillary Facilities		
• Refuse Room	30	Direct connection with Refuse Vehicle Parking
• Clinical Waste Room	20	Direct connection with Refuse Vehicle Parking
• Transformer Room (Tx Rm)	8m x 6m	To be located at ground floor
• High Voltage Switch Room (HV)	6m x 5m	At appropriate location
• Low Voltage Switch Room (LV)	6m x 5m	At appropriate location
• Generator Room	5m x 5m	At appropriate location
• Air Conditioning Plant Room	6m x 6m	To be located at Roof level
• Passenger Lift(s)	Nos. as appropriate	Shaft size 2400mm X 2600mm (min.)
• Service Lift(s)	Nos. as appropriate	Shaft size 3800mm X 3800mm (min.)

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• Major structural elements• Overall and critical dimensions• Appropriate annotation
Section (A minimum of ONE at 1:200)	<ul style="list-style-type: none">• Floor to floor and other critical dimensions• Appropriate annotation• To show principle functional relationship• To show relationship between elements of construction (e.g. Interfaces and connections of building structure, building envelope, and etc.)
3-dimensional Illustration	Not compulsory
Calculations	<ul style="list-style-type: none">• The design is assumed to comply with the relevant Buildings Ordinance and Regulations.• No calculation is required.

END OF PAPER



PAVEMENT

X

Z

Y

PAVEMENT

SUBJECT SITE

+148.0

PARK

PARK



SUBJECT SITE

Site Boundary

Site Boundary

Road A

+148

Park



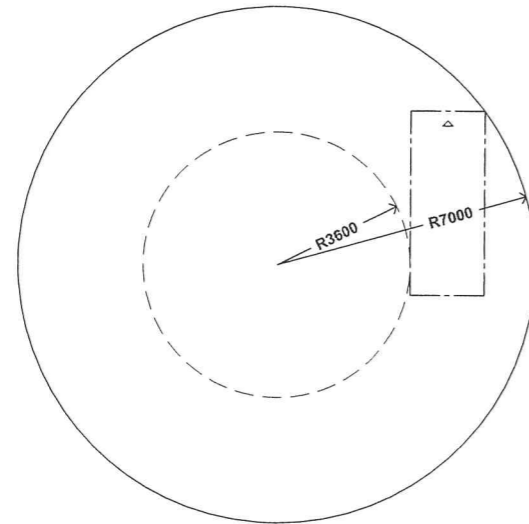
HKIA / ARB
Professional Assessment 2022

Paper 7
BUILDING DESIGN

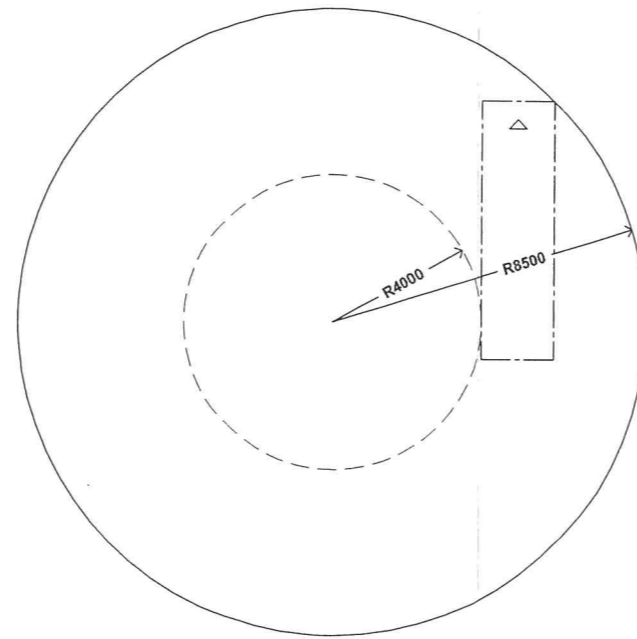


ATTACHMENT 3
SITE SECTION

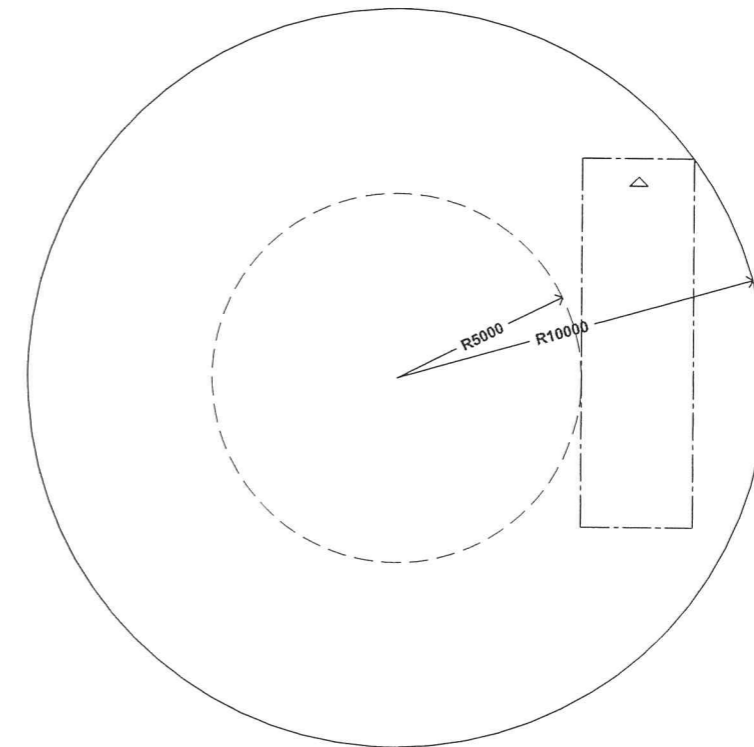
Scale
1 : 200



PRIVATE CAR



LIGHT GOODS VEHICLE (LGV)



REFUSE COLLECTION VEHICLE

