

Candidate Number :

Seat Number :

HKIA / ARB Professional Assessment 2013

Paper 6 SITE DESIGN

21 November 2013
9:00 am – 1:00 pm (4 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(s) for highlights if necessary. Do NOT use RED. |

CONTENT

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|--------------|---|--------------|------------------------------------|
| Attachment 1 | Design Data Sheet | | (To be completed by the candidate) |
| Attachment 2 | Location Plan | 1:1000 | (A3 size) |
| Attachment 3 | Site Plan | 1:500 | (A3 size) |
| Attachment 4 | Plan of Prototypes (1&2) | 1:500 | (A3 size) |
| Attachment 5 | Minimum Standards of Turning Circles for Private Cars, Goods Vehicles and Tourist Bus | Not to scale | (A3 size) |

1 INTRODUCTION

Your client is a local university. They intend to develop a virgin site (the Site) in their campus to provide student dormitories and staff quarters. Your office has been commissioned to prepare a preliminary master layout plan to explore the feasibility of the development in compliance with the general statutory controls and other statutory enactments imposed on the site.

2 SITE DESCRIPTION

Site Context

The Site is a virgin site within the client's university campus in the New Territories, which is zoned as 'Government, Institution or Community' in the concerned Outline Zoning Plan. Dormitories and quarters related to educational institution are always permitted.

The Site is generally flat. It is bounded by Campus Avenue North and Campus Avenue South, which are 8m wide, on the north, east and south.

The surrounding buildings are teaching and administration buildings of 6 to 10 storeys high.

Refer to the Location plan in Attachment 2.

Special Features

An existing artificial lake stretches from the adjoining lot on the west to the northwestern part of the Site.

No existing trees within the Site are required to be retained.

Vehicular Access

Vehicular ingress and egress shall be between X and Y through Z as indicated in the Site Plan in Attachment 3.

Height Restriction under lease

Under the lease, no buildings within the Site shall exceed the height of 70mPD.

For the purpose of this paper, building height refers to the height from the mean street level to the roof of the highest usable floor area.

3 THE BRIEF

The proposed development shall comprise of the following:

| | <i>Accommodation / Facilities</i> | <i>Required Area / Number</i> | <i>Other Requirements</i> |
|----|------------------------------------|-------------------------------|---|
| 1) | Staff Quarters (Prototype 1) | 16,000 m ² | For typical floors Ground floor subject to individual design |
| 2) | Student Dormitory (Prototype 2) | 9,000 m ² | For typical floors Ground floor subject to individual design |
| 3) | Dining / Multi-purpose Hall | 800 m ² | One storey. |
| 4) | Car Park | 40 nos. | Minimum 25% shall be covered. |
| 5) | Loading / Unloading Bay | 2 nos. | |

Use the typical floor plans of the Staff Quarters (Prototype 1) and Student Dormitory (Prototype 2) and provided in Attachment 4 for the feasibility study. The typical floor-to-floor height shall be at least 3.3m. The ground floor can ONLY be used as entrance lobbies, communal areas, covered car parking spaces, plant rooms and/or other ancillary facilities.

The profile and configuration of the prototypes can be adjusted to suit the site conditions. The size can also be adjusted to suit the proposed preliminary master layout plan within 10% variation.

The client also intends to provide the following:

- (a) To provide a landscaped open area of at least 1,000 m² in total;
- (b) To extend the existing artificial lake in the northwestern part of the Site to form a lake of minimum 2,500 m², which shall be harmoniously integrated with the open area referred to in item (a);
- (c) To provide pedestrian walkways to connect all blocks without the need to cross the internal road(s) within the Site; and
- (d) To provide a pedestrian passage of at least 6m wide linking Campus Avenue North and Campus Avenue South through the site.

4 THE TASK

You shall demonstrate the optimum arrangement of the blocking within the Site so as to meet the development brief, to respond to the site constraints and opportunities, and to comply with the statutory requirements.

As required under the lease, the design proposal shall comply with the Sustainable Building Design (SBD) Guidelines as stipulated in PNAP APP-152. In this regard, the site arrangement shall comply with the following:

(a) Building separation

For the purpose of this paper, it is NOT required to demonstrate building permeability if the proposed continuous projected façade length (L_p) for any building or group of buildings does not exceed the requirement under PNAP APP-152.

(b) Street setbacks

For the purpose of this paper, setback is NOT required for the internal road(s) within the Site.

(c) Green coverage

The minimum site coverage of greenery (% of total site area) shall be provided. For the purpose of this paper, all greenery shall be provided at the pedestrian zone level at 20%

Special attention shall also be paid to the pedestrian traffic flow, vehicular traffic arrangement and drop-off, servicing of the buildings, and the relation between the open area and the buildings.

The design proposal shall be modest yet imaginative, functionally and commercially sensible, technically feasible, and shall comply with the relevant statutory requirements.

5 SUBMISSION REQUIREMENTS

Master Site Plan

Work on the blank A3 size answer sheet provided.

Suggested scale 1:500

- Show site development at the roof level.
- Show access points for vehicles and pedestrians.
- Show relevant features of the adjacent sites.
- Show uses, levels, circulation, lighting and ventilation provisions whenever necessary, open space, etc.
- Plans at different levels can be added to demonstrate the proposed design if necessary.
- Show car parking provision (no detailed layout of the car park is required).
- Demonstrate general compliance with the SBD Guidelines with regards to building separation, street setback and green coverage. (Show in-principle compliance only; detailed illustrations / calculations are not required.)

Master Section(s)

Work on the blank A3 size answer sheets provided.

Suggested scale 1:500

- Demonstrate the proposed design in at least one section through the entire site.
- Indicate clearly the site boundary, site formation levels, floor levels of different blocks, landscape features, and other design features.

Development Schedule

Refer to Attachment 1.

- Complete the Design Data Sheet.
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E N D O F P A P E R 6

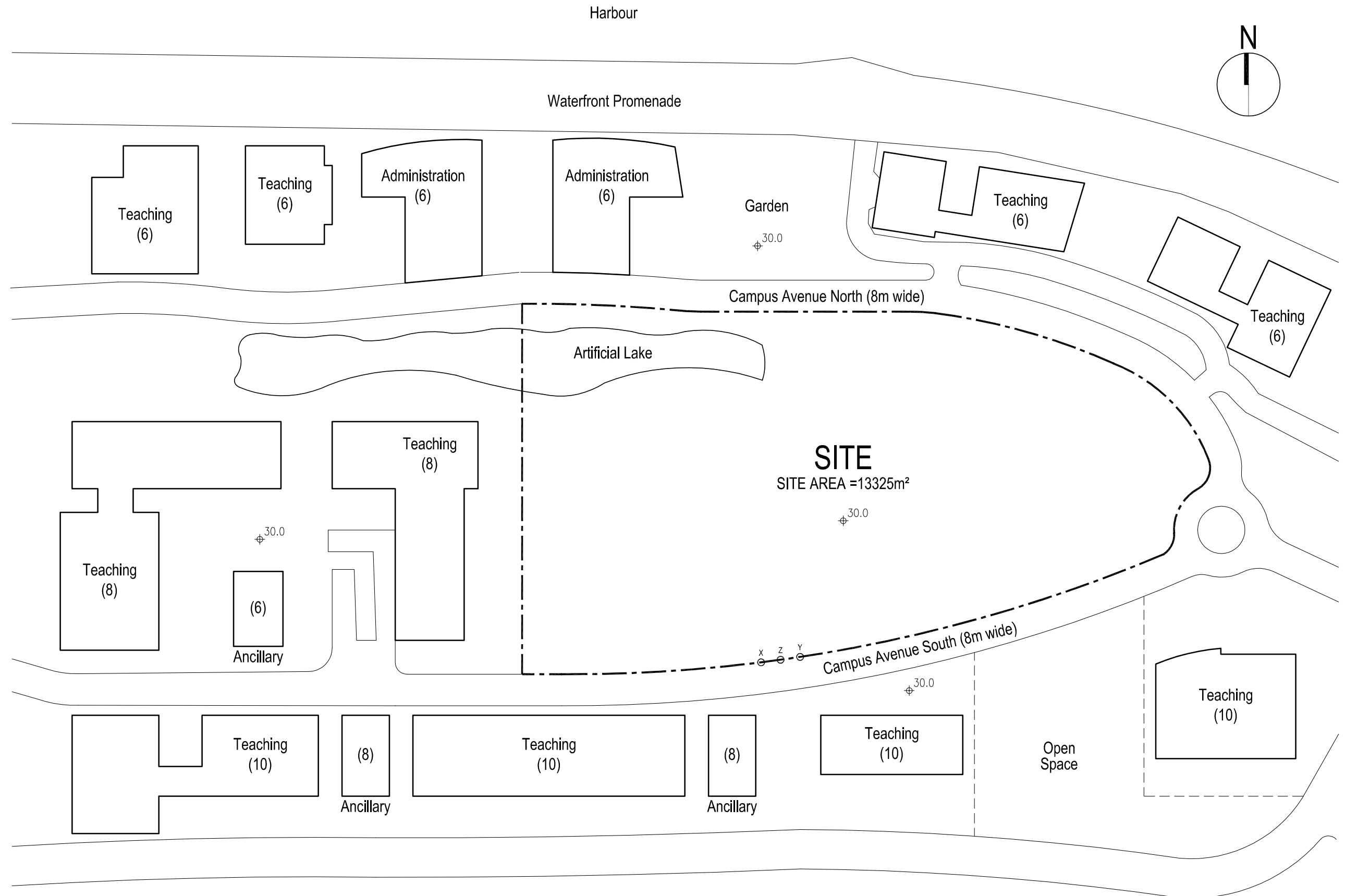
Candidate Number :

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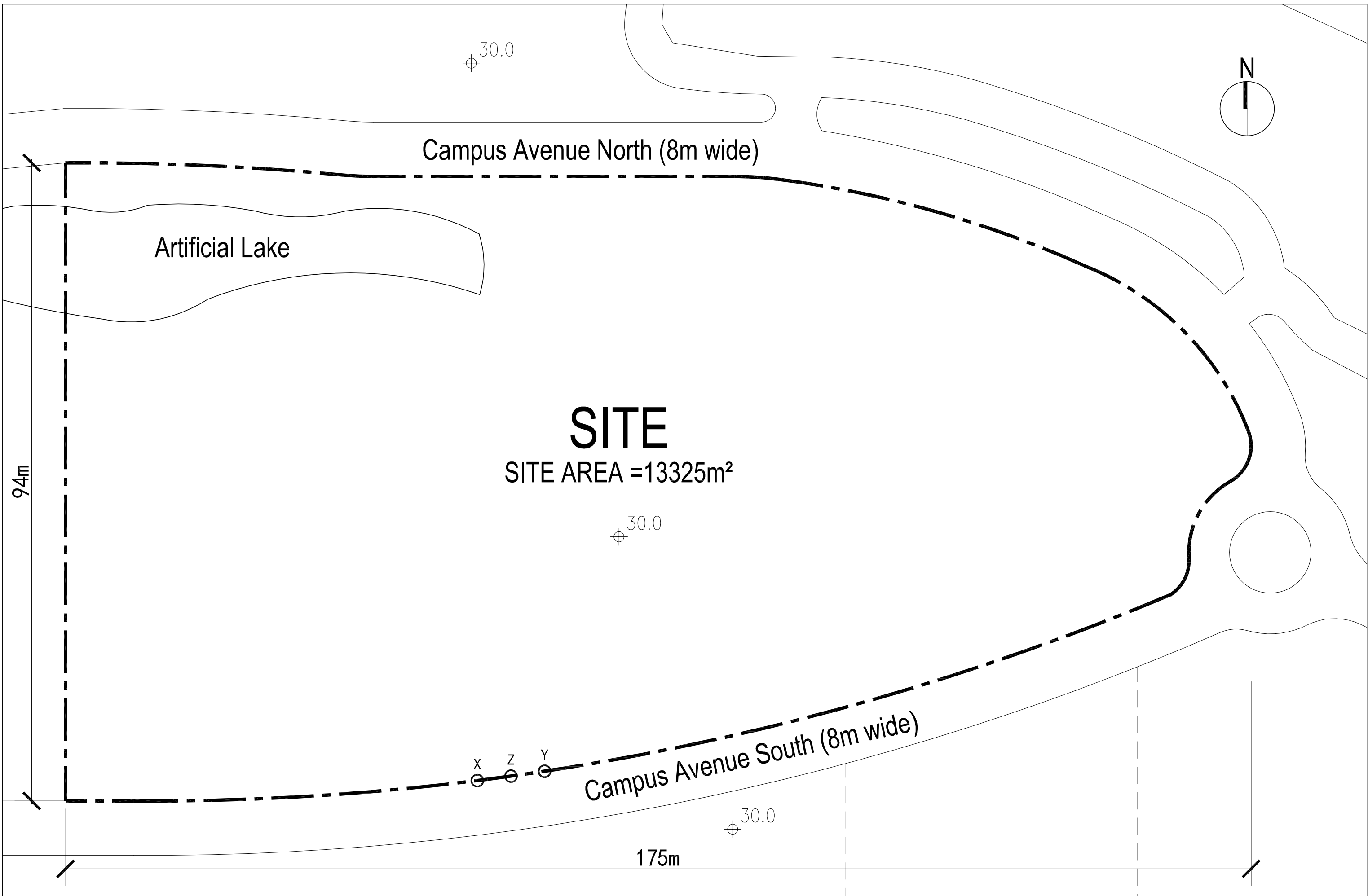
Design Data sheet

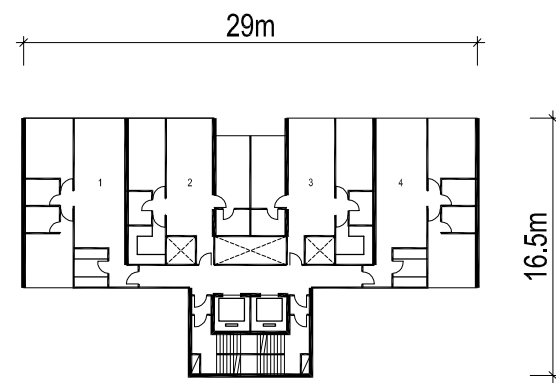
| Development Schedule | | | |
|-----------------------------|--|---------------------------------|-----------------------|
| | | Requirements under lease | Proposed |
| | Site area | 13,325 m ² | 13,325 m ² |
| | GFA - Domestic - Non-domestic | | |
| | Plot Ratio | | |
| | Height Limit | | |
| | Site Coverage | | |
| | Open Space Provisions | | |
| | Green Coverage (SBD requirement) | 20% (all at pedestrian zone) | |
| | Numbers of Car Parks | | |
| | Loading and Unloading Provisions | | |

V4.0

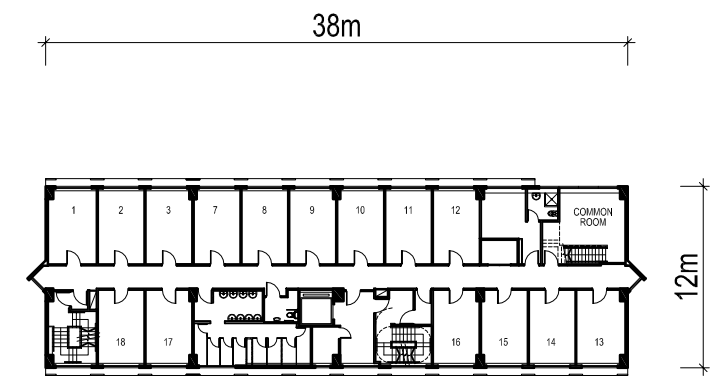


Note: The number in brackets denotes the number of storeys.

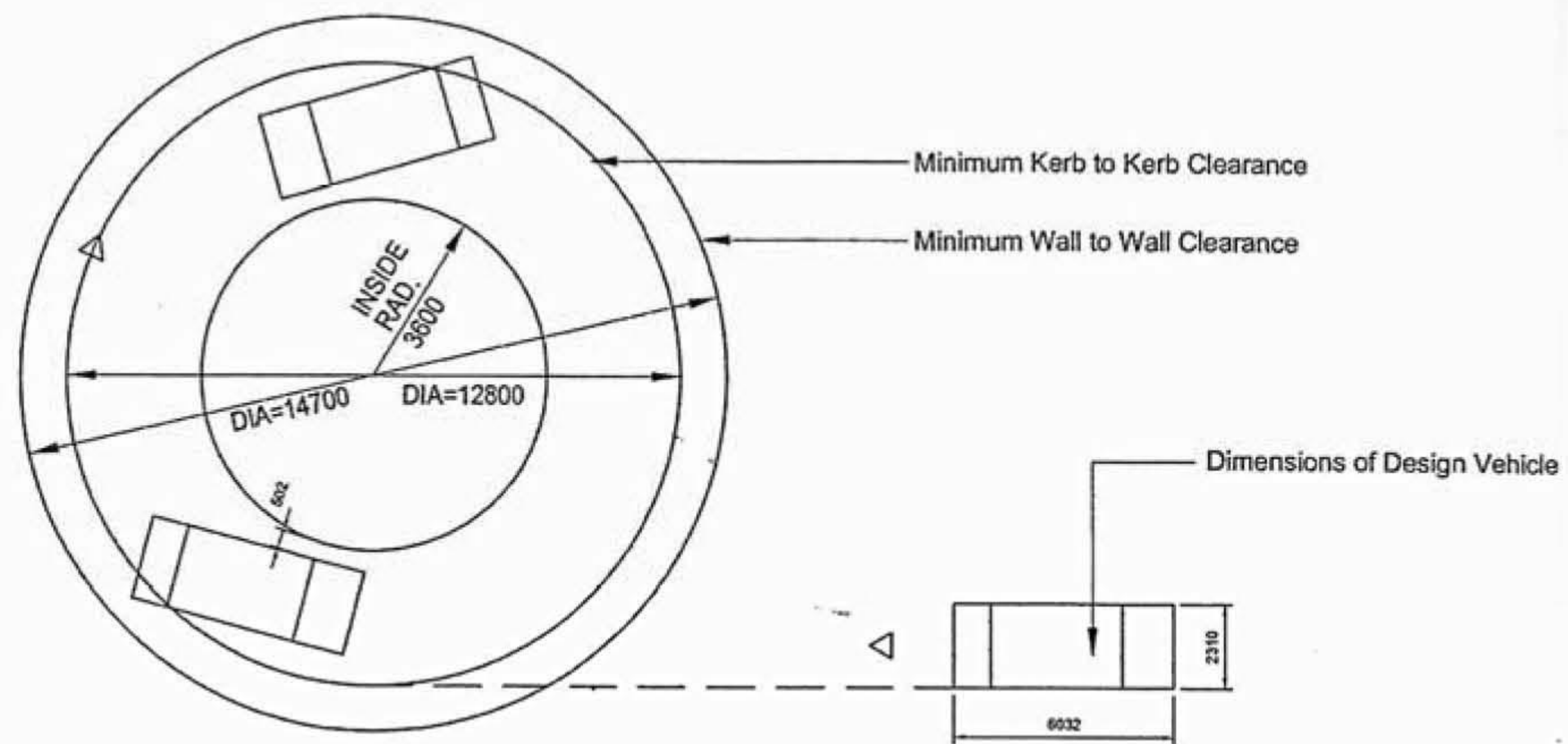




STAFF QUARTER - PROTOTYPE 1
 GFA PER FLOOR = 360m²
 (ASSUME INTERNAL BATH ROOMS & KITCHEN)

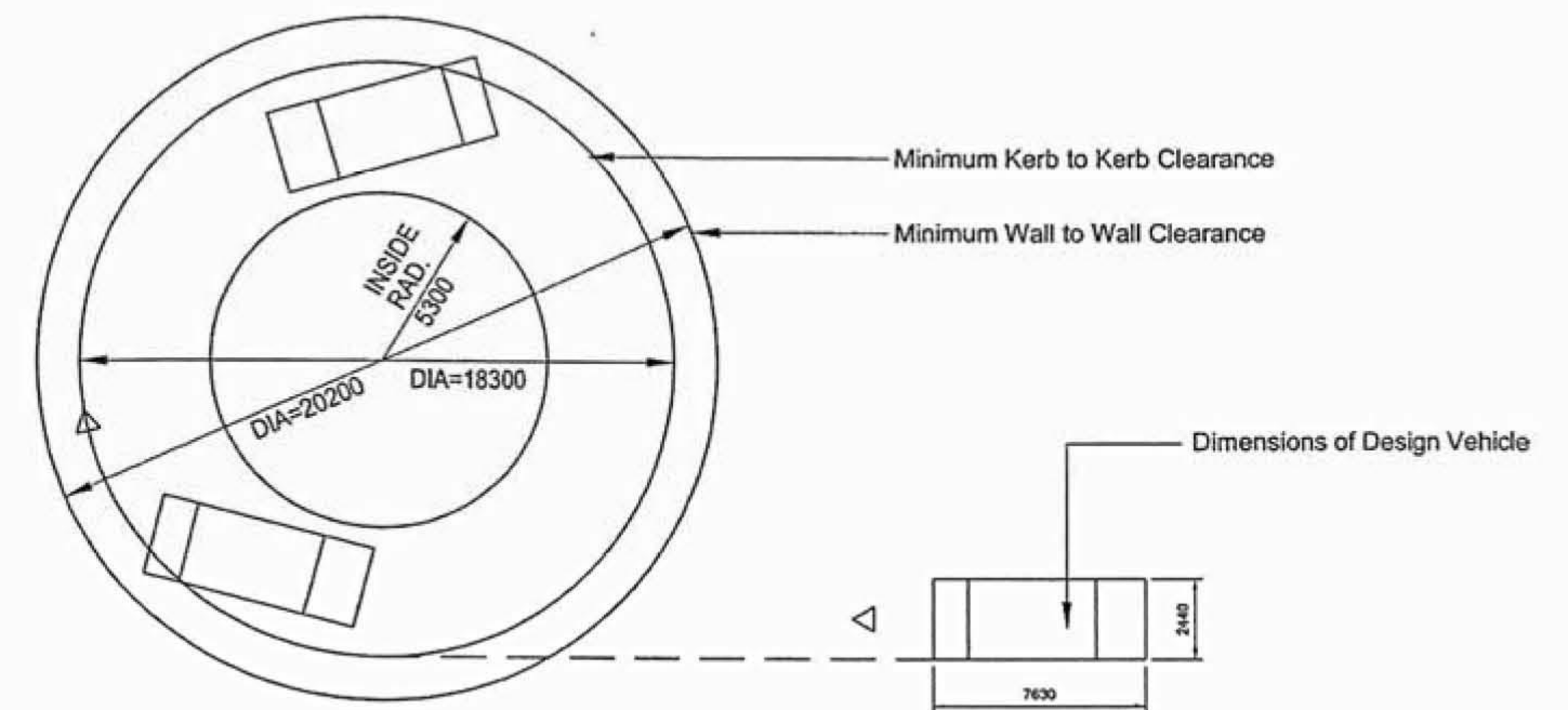


STUDENT DORMITORY - PROTOTYPE 2
 GFA PER FLOOR = 450m²



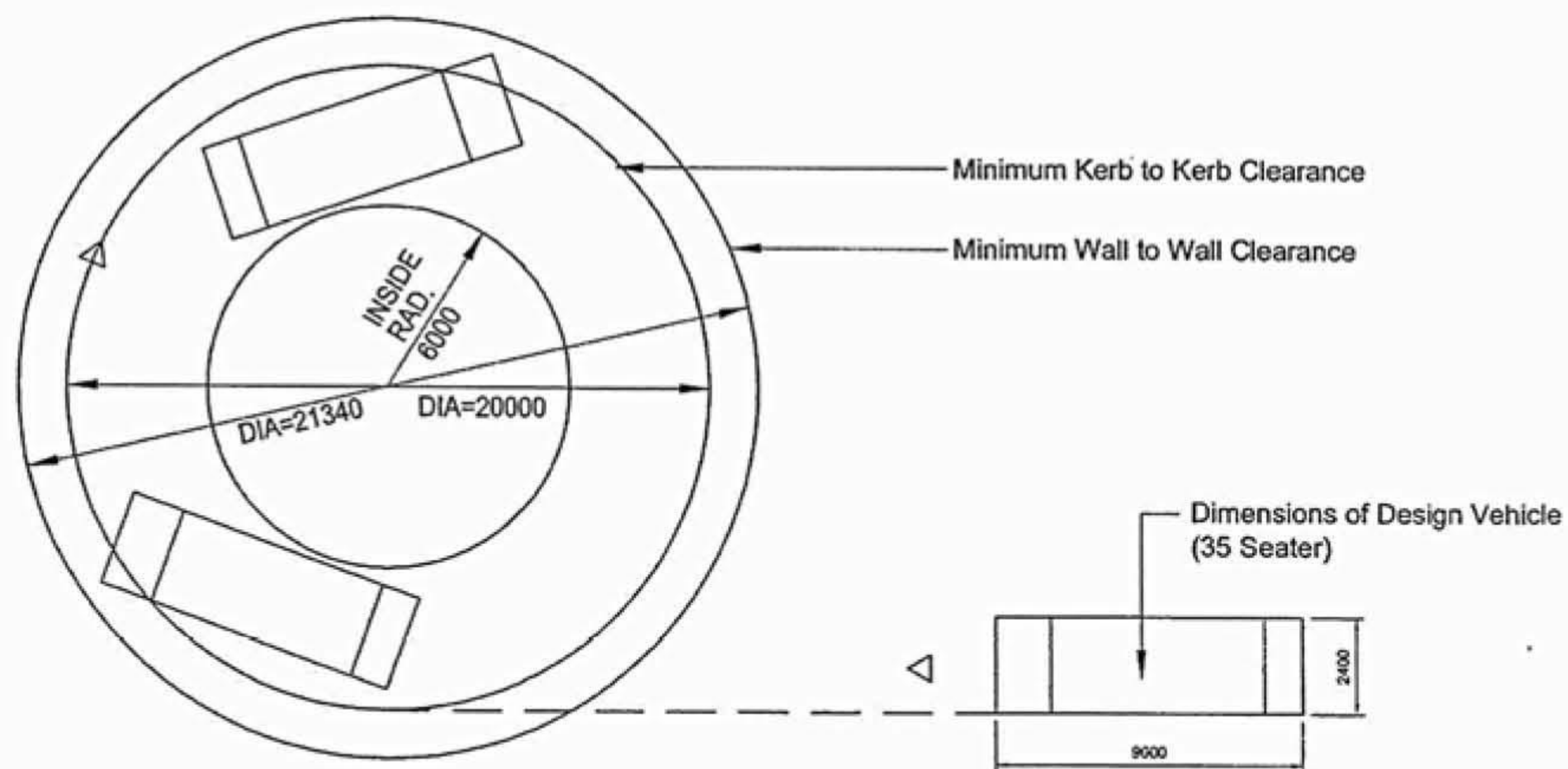
RECOMMENDED MINIMUM STANDARDS OF TURNING CIRCLE FOR PRIVATE CARS

(not to scale)



RECOMMENDED MINIMUM STANDARDS OF TURNING CIRCLE FOR GOODS VEHICLES

(not to scale)



RECOMMENDED MINIMUM STANDARDS OF TURNING CIRCLE FOR TOURIST BUS

(not to scale)

