CHAPTER 2 CONTENTS OF THE PROJECT

2-1 Objectives of the Project

As stated in Chapter 1, to set up "Vietnam-Japan Human Resources Cooperation Center" in the Foreign Trade University in Hanoi is planned to develop human resources to turn the Vietnamese economy to market-based economy and to strengthen mutual understanding of the two countries, where the Project-type Technical Cooperation by the Japanese Government is to be executed at its inception. This Grant Aid Scheme aims at providing necessary space (center building) and training equipment to enable a smooth execution of various activities and thereby achieving the intended objectives of the said Project-type Technical Cooperation Scheme, holding business seminars, Japanese language courses and computer courses, along with cultural exchange of both countries. Though the Project-type Technical Cooperation Scheme is being considered to be executed both at Hanoi and Ho Chi Minh cities, the Grand Aid Scheme this time is intended only at Hanoi City as previously discussed.

2-2 Basic Concept of the Project

2-2-1 Basic Concept of the Project

The Project is based on the "Japan Center" to which the Japanese Government has been extending assistance in setting up and running in the NIS countries of the former Soviet Union, having the following basic concept:

- Provide a space open to the general public, with easy access for all walks of people regardless of age or nationality, yet paying close attention to the security aspect by zoning the space for the intended users.
- The floor area will be of a reasonable scale comprising spaces for large and medium size seminars and lectures.
- The facility should present a "Face" of Japan in the recipient country, insofar as reasonably allowed by the budget.

The Project Facility is composed of 3 zones, each including the various rooms as given below.

- Cultural Exchange/Lobby Zone : presentation Lobby space, Library, and overseas study guidance booths.
- Seminar Zone : Multi-purpose Room, Seminar Rooms, Computer Room, Japanese Language Room and Cultural Exchange Room.

・ Administration Zone: Director Rooms, Administration Office, Instructor Room, Meeting Room and Reception Room.

The major activities to be conducted at the Project as formulated by the Preliminary Survey Mission for the Project-type Technical Cooperation Scheme are as follows;

[Business Seminars]

10 business courses will be organized, with 30 courses in total conducted throughout the year. 40 people will be accommodated in each course. The purpose of the seminars will be to train people in international standard practices in accounting, marketing, business planning, foreign trade, company management diagnosis, financing and securities, readying them to tackle the challenge of market orientation of the economy.

[Computer Courses]

The computer courses will be designed to provide training of a higher level in computer skills that will allow for businessman to utilize computer's intrinsic capabilities, not to keep the computers to mere office automation equipment.

[Japanese Language Courses]

The Japanese language courses will be designed to train prospective students for overseas study or workers for job training in Japan. The courses will provide an advanced training beyond day-to-day conversation level.

[Information Services and Cultural Exchange]

The Library and presentation areas will be furnished with several audio-visual equipment, literature on Japan and Internet access facilities. These facilities will provide the general public as well as the trainees with information on Japan to deepen understanding of Japan. Cultural exchange activities will be held introducing Japanese culture and thereby developing personal contacts to strengthen friendly relationship between Vietnam and Japan.

2-2-2 Major Components of the Project

The objective of the Grant Aid is to construct the Project Facilities and supplying the Training Equipment for various seminars and training which are necessary to carry out the aforementioned Project-type Technical Cooperation Scheme as outlined below:

[Project facilities]

Structure:	Reinforced concrete structure, 3 stories high, single building

Total Floor Area: 1517 m^2

Covered Ground Area: 658 m^2

Including ground floor piloti space for car parking,299m^2

[Supply of Training Equipment]

- Exchange/ Lobby Zone:

Large Flat Panel Display	1set
Internet Access Computers	10 sets
Audio-visual Information Equipment	2 sets
Library Furniture	1 lot
Printer and Copy machine	1 each

- Seminar Zone:

Audio-display Equipment (Multi-purpose Rm.)	1 set
Audio-display Equipment (Seminar Rm.)	1 set
Personal Computers (Computer Room)	20+1 sets
Movable “Tatami Floor”	8-joh

- Administration Zone:

General office equipment (copy machine, facsimile)	1set

2-3 Basic Design

2-3-1 Design Concept

(1) Basic Principles

The following basic principles will be considered in the design of the Project Facilities;

a) The design will take into consideration the local climate, natural features and lifestyles of Vietnamese people.

b) The design will consider the distinctive users in various zones and make considerations for the security aspect yet maintaining easy access for the users.

c) The design will pay due attention to the local construction conditions and general level of university facilities in Vietnam. The quality and grade of the facilities will be suitable to the advanced training activities proposed in the Project Facilities.

d) The design will incorporate Japanese elements to a reasonable degree as the “Japan Center”.

(2) Natural Conditions

a) Climate

Hanoi lies in the semi-tropical climatic zone with hot and humid summers and cool and humid winters. In order to maintain room conditions suitable for study and training activities during the period from May to October when average temperatures are above 25°C, air-conditioning for the major rooms will be required. During the period from December to February temperature sometimes drops to near 16°C with an average of 20°C. As the activities at the Project Facilities may extend to nighttime, it may be advisable to provide heating-convertible type airconditioners. The rainy season lasts from June to August and appears again in November which have precipitation of over 300 mm. Due to this intensive rainfalls, construction will have to be carefully planned for earthworks and foundation works during these periods.

b) Soil Conditions

According to the geotechnical investigation carried out by a local survey company during the Basic Design Study in Vietnam, load bearing soil has been determined to be the sand layer lying 30 meters below the ground level. Pile foundations will be effectively used.

(3) Social Conditions

a) Infrastructure around the Project Site

Basic infrastructure, such as power supply, water supply, drainage and communication facilities are already available around the Project site. However, power supply system will require new distribution facilities as the existing transfomer near the entrance of the University compus lacks sufficient reserve capacity. A new power receiving room will be provided in the Project Facilities with appropriate transformers and distribution panels. The voltage fluctuation is large and power outages are frequent in Hanoi which will require appropriate countermeasures, including auxiliary diesel generator and uninterrupted power supply equipment (UPS) for the equipment having built-in computers.

Water supply pressure is so low that receiving tanks on the ground and pumps to lift up water to rooftop day tanks will be required. Municipal drainage system cannot cope with torrential rains in rainy seasons and FTU has been experiencing flooding reaching up to about 50 cm above the ground once in every 2 or 3 years. The Project Facilities will be designed to have a raised ground floor above the flood levels, about 80 cm above ground, for which introduction of piloti structure will effective. The piloti will be a good idea also to create a car parking space. Water tanks placed outside will also have to be protected against the flood.

b) Building Design Regulations

Around the FTU area, buildings having not more than 3 stories are not permitted to be built from a view point of an effective use of urban land. Referring to the administrative guidance given by the Chief Architect of Hanoi to the recently constructed buildings in the FTU campus, minimum 3 stories were mandatory. Accordingly the Project facilities will be multi-storied in compliance with this regulations. In the FTU campus, parking space for motorbikes and bicycles of students and teachers is already overloaded. Under the circumstances, parking space for cars used by the lecturers and personnel of the Project will be created in the piloti space under the building to effect a maximum use of the limited available land space and outdoor parking space for motor bikes will be planned inside the Project site not to cause spillover to the open space in the campus.

2-3-2 Basic Design of Project Facilities

(1) Plot Plan

The Project site is on the immediate right after passing through the main entrance gate at northeast corner of the FTU campus. The site is bordered on the north by a dormitory for foreign lecturers, and on the east by the main campus passageway, and faces a relatively large open space with scattered tall trees on the south. Beyond this open space, there stands the 5-storey main classroom building. West side of the site is bounded by a motor bike shed for students, beyond which lies a residential quarters for the university staff and personnel (Ref. Figure 2.1). The allocated land is rectangular with sides of roughly 50meters east-west and 30 meters north-south with an area of 1500 m^2. The Project Facility having a ground coverage of approximately 660 m^2 will be placed on the site lengthwise in east-west direction facing its front to the south. Surrounding outdoor space will be covered with greenery as much as possible accommodating a space for trainees' motor bike parking as discussed above.

(2) Determination of Project Facility Floor Area

The floor area of each room in the Project Facilities will be determined based on the planned seminars, their frequency and number of attending trainees, on the number of people occupying the rooms and on installed equipment sizes in the rooms. Space calculation process are as described below:

1) Exchange / Lobby Zone

a) Lobby:

This space will be designed to provide a suitable entrance space to the entire building for trainees, visitors and Project personnel. It

will concurrently afford a space for information services by a large flat panel display unit and will be used as a space for exchange activities between the Project and the surrounding community. This space will be sized at maximum within 30% of total floor area combined with all circulation spaces such as corridors and stair cases, which is a standard building design practice. =100 m^2

b) Library: =154 m^2

Reading Room: Seating for 12 persons and circulation, $3m^2$/p.×12 p. =36 m^2

Book racks: Rack space for 10,000 books, 10,000÷300 b./m^2 =33 m^2

Control desk: Administration of Library, renting out of videos and use of Internet, copying/printing, control desk 20 m^2 + space for equipment 30 m^2 =50 m^2

Information Booths: 10 Internet access booths, 1.6×0.9×10 =14.4 m^2

5 self-study booths, 1.6×0.9×5 =7.2 m^2

A/V Booths: 2 booths to watch videos on Japan (for 2 p.), 1.6×1.8×2 =5.8 m^2

Guidance Booths: 2 booths for guidance for prospective overseas study students to Japan, 3.9×3×2 =18 m^2

2) Seminar Zone

To enable versatile training activities, movable partitions will be introduced to effect efficient and flexible space creation.

a) Multi-Purpose Room: Multi-function room formed by combining 3 seminar rooms with seating of 100, school type 2-seater, 2 m^2/p. ×100 =200 m^2

b) Seminar Rooms: 2 rooms for 40 persons, school type 2-seater, 2 m^2/p.×40 m^2×2 =160 m^2

All the above rooms (Multi-Purpose Room and Seminar Rooms) can also be combined into one large room for special lectures (Ref. Figure 3.10).

In this case, a booth for simultaneous interpreter will be required, for which an observation window and space will be provided in the Storage on the east side of the floor.

c) Computer Room: 20 PCs for study and 1 PC for instructor, 3.0 m^2/p.×20 p. =60 m^2

d) Cultural Exchange Room: Cultural exchange introducing Japan and social gathering, for 15 persons, 3.3 m^2/p.×15 =55 m^2

e) Japan Club: Activity space for Japan Club, JOCVs etc. in Hanoi, work tables and lockers with keys, 3.3 m^2/p.×15 p. =55 m^2

3) Administration Zone

a) Director Rooms: 2 rooms for Directors w/ toilet 8×4 m^2/p.×2 =64 m^2

b) Reception Room: To be used by both Directors =20 m^2

c) Administration Office: 7 persons (1 section chief, 2 deputy chiefs 5 staff) (1×2.5+2×1.8+5×1) ×4.0m^2/p. =44 m^2

d) Lecturer Booths: Space continuous with office, divided by low partition panels, 12.0 m^2/p.×4 p. =48 m^2

e) Instructor Room: Space for 3 Experts and textbook editing equipment (1 manager, 2 deputy managers) (6×1+1.8×2) × 4.0m^2 /p.+ 2.5m^2×6 =55 m^2

f) Meeting Room: Conference space for 15 persons, =40 m^2

g) Storage: 17% of office area (incl. space for simultaneous interpreter) =8 m^2

h) Kitchenette: In reference to 1000~2000 m^2 scale office building =21 m^2

4) Others

a) Corridors and Staircases: 33% of total floor area of above 1)~3) (incl. Lobby 100 m^2 on the 1st floor) =277 m^2

b) Toilets: 1st floor Lobby: (M) water closet 1, urinal 1, lavatory sink 1 (F) water closet 1, lavatory sink 2
2nd floor (for 20 occupants): (M) water closet 1, urinal 2, lavatory sink 1, (F) water closet 1, lavatory sink 2
3rd floor (for 200 occupants): (M) water closet 2, urinal 2, lavatory sink 2, (F) water closet 3, lavatory sink 4 =50 m^2

c) Mechanical Equipment Space: Power Room 40 m^2, Pump Room 18 m^2 =58 m^2

Based upon the above calculations, various rooms have been practically sized and laid out as summarized in Table 2.1.

Table 2.1 Room Areas (m^2)

Room	Remarks	Designed Area (m^2)
1 Exchange / Lobby Zone		**308**
Lobby	Display, lounge	116
Library		173
Reading Room	12 seats	(52)
Information Booth	PC for internet x 10 and self study x 5	(39)
Book rack space	Initial book rack for 3000 books	(32)
Others		(50)
Guidance	2 guidance booths	19
2 Seminar Zone		**503**
Multi-Purpose Room	100 sets, dividable	203
Seminar Room (1), (2)	40 sets x 2	165
Computer Room	PC x 2, instructor's desk, OA floor	64
Cultural Exchange Room	Japanese cultural exchange	39
Japan Club		32
3 Administration Zone		**345**
Director Room(1), (2)	2 rooms, w/toilet	68
Reception Room	Commonly used by Directors	29
Administration Office	Office worker x 7, office equip.	45
Instructor Room	Lecturer x 3, text book editing equip.	61
Lecturer Booth	For 4~5 lecturers	59
Meeting Room	15 persons, round table	48
Others		35
4 Circulation/ Mechanical		**361**
Total Floor Area		**1,517**

(3) Elevations and Section

1) External elevations and sections will be designed in the following manner:

- 1st floor level will be raised at least by 80 cm above the ground level to avoid flooding.
- Main structural components (columns, beams and floor and roof slabs) will be of reinforced concrete with brick masonry walls.
- Rooms with large occupancy such as Library and Seminar Rooms will have a minimum ceiling height of 3 meters. Other rooms will have a ceiling height of 2.5 meters in principle.
- Floor height will be designed to avoid beams from protruding under the above ceiling.

  From a preliminary structural calculations floor heights have been determined to be ;

Administration Office etc.:	3.1 m
Library, Multipurpose Rooms etc.:	4.0 m
Piloti on 1st floor:	Net clearance under beam in garage over 2.1 m, floor height in Lobby portion 3 m

In consideration of the above condition, structural frame will be made in a split level space composition with Lobby having floor level GL+0.8 m and Library GL+3.9 m. Other floors will have the same floor levels (Ref. Figure 2.5).

(4) Finishing Materials Plan

The columns will be expressed architecturally in the external elevations. On the walls, windows will be arranged to reflect internal rooms and their sizes, with simple and functional design. Especially, the windows at Administration Office and Computer Room etc. on the south side which face the open space of the campus will be horizontally continuous to contrast with the vertical columns. The large rooms on the third floor such as Multipurpose Room will require steel structure roof because of a large span over there. This will be expressed as sloped roofs with colored metal deck. Both external and internal walls will be finished with paint on mortar screed. Interior finishing materials will be selected among durable and un-smearable ones for easy maintenance services.

The 1st floor Lobby as presenting the character of the Project Facilities will be given a Japanese feel with selected finishing materials.

Major finishing materials will be as given below;

- Exterior Finishing

  Wall : Paint finish on mortar screed over brick masonry

  Columns : Architectural concrete finish with water-repellent paint

Roof : Metal roof, partially asphalt built-up waterproofing covered with mortar

Windows : Colored aluminum window frame w/clear glass except those in the horizontally continuous windows, which will be glazed with light reflective glass

- Interior Finishes
- Ordinary Rooms (Multipurpose, Seminar Rms., Adm. Office, Library)

Floor : Vinyl tile

Wall : VP paint on mortar screed (VP: vinyl paint)

Ceiling : Acoustic ceiling tile

- Computer Room

Floor : Vinyl tile on free-access floor

Wall : Same as the ordinary rooms

- Lobby

Floor : Special quarry tile

Wall : Texture paint on mortar screed

Ceiling : Gypsum plaster

(5) Structural Design

a) Structural Description

Main structural frame will be of reinforced concrete. External and internal walls will be of brick masonry.

Foundations will be supported by square section precast reinforced concrete piles, 300 or 350 square. The bearing soil will be a sand stratum lying 30 meters below the present ground level. The bearing capacity of piles is calculated to be 47t for 300 square piles and 70t for 350 square piles. These will be used in economical way according to the loads exerted on the fundations.

Design Load List

	Type	Floor	Frame	Earthquake
General	Dead load	440	440	440
	Live load	300	180	80
	Total load	740	620	520
Metal Roof	Dead load	80	80	80
	Live load	100	100	30
	Total load	180	180	110

b) Major structural materials

- Concrete : General structural concrete Fc=24, Leveling concrete Fc=15

- Steel Reinforcement Bars : Equivalent to JISSD295A (R9~22,D10~16)
  JIS SD345 (D19~25)
- Structural Steel : Equivalent to JIS SS 400

c) Seismic Load

The aseismatic design code has not been formalized in Vietnam. Their Building Code recommends that a recognized international design standard is applied. The Japanese Building Code Design Standards will be applied in this regard using a seismic factor of 0.15.

d) Wind Load

Wind load will be calculated at 45 m/s wind velocity.

(6) Building Service Systems Design

a) Electrical System

Concerning the existing power supply system at FTU, outline was given previously in 2-3-1. Electric power for the Project Facilities will be received at Power Room on the 1st floor of the building. As Hanoi has frequent power failures, the Project will have to have uninterrupted power supply units (UPS) for computerized equipment and a back-up diesel generator for general purpose.

The diesel generator will have the following specifications:

- Rated power output : 50 kVA (for partial lighting, CPU, fire protection system etc.)
- Fuel : Light oil (JIS K2204-2 or equivalent)
- Diesel engine : Linear 4-cycle, water cooled
- Generator : 3-phase synchronized alternate current generator, horizontal axis, air cooled

Receiving voltage of power will be 22 kV to comply with the Hanoi Power Company's future standard distribution voltage to which HPC is going to unify in their development plans (currently 6 kinds of voltage are in use ranging from 6 kV to 35 kV). The power receiving equipment will be a convertible type of 10 kV and 22 kV with a capacity of 150 kVA.

The electrical system and equipment will comply with the following standards;

- Electricity of Vietnam (EVN)
- Japanese Industrial Standards (JIS)
- Japan Electrotechnical Standards (JES)
- Japan Electrical Manufacturers Association Standards (JEM)
- International Electrotechnical Commission Standards (IEC)
- Japan Cable Standards (JCS)

Equivalent international standards will also be allowed.

b) Power Circuits

Power lines will be taken from the low tension panel in Power Room and distributed to each requirement at 380/220 V, 50 Hz. UPS devices will be individually provided for Training Equipment having CPU.

c) Lighting and Power Outlets

Lighting system for each room will be planned with due consideration to low running cost and easy maintenance while securing proper illuminance levels. Illuminance levels in major rooms will be determined according to JIS standard taking into consideration the local conditions as shown in table 2.2 below. In order not to interrupt ongoing training activities, power will be supplied to the major rooms at power failure from the diesel generator.

Table 2.2 Illuminance Levels in Various Rooms

Room	Intensity (lx)
Multi-Purpose Rm., Seminar Rm., Computer Rm., Cultural Exchange Rm., Japan Club	300 (300)
Director Rm., Administration Office, Instructor Rm., Library	300 (150)
Lobby	150 (150)
Meeting Rm., Reception Rm.,	200
Other rooms (Corridor, Staircase, Storage, Kitchenette, Toilet)	150
Mechanical equipment room	100

Note: Number in parenthesis indicate levels under back-up power.

d) Telephones and Facsimile

Existing telephone lines to FTU have 40 circuits among which 20 circuits are presently used. No additional line will be required owing to the Project as the required circuits can be taken from the reserve of the existing terminal box near the Project site. Telephone lines will be extended to subscriber circuits and Internet connection outlets in the building after PABX (Private Automatic Branch Exchange) unit and protective devices.

e) Paging System

Emergency paging system will be provided in the major rooms. In Multipurpose Room, ceiling mounted speakers for seminars will temporarily be activated for this particular purpose. Amplifier and microphone will be installed in Administration Office.

f) Fire Detection System

Automatic fire detecting system will be provided throughout the building based on Japanese Fire Prevention Standards.

g) Television Antennas

Television antennas and receiving equipment for both land-based and satellite transmissions will be provided. Parabolic antennas will be installed on the roof of the building for satellite transmissions.

h) Lightning Protection

As Hanoi area is a lightning-prone area suffering from severe damages, lightning protection system will have to be provided to the building, especially to protect computers and AV equipment. The system will be constructed of a main air terminal coupled with ridge mount air terminals and horizontal conductors.

i) Plumbing System

- Domestic Water Supply

  Water will be received by an underground water reserve tank, then lifted up to an elevated water tank on the roof of the building. The elevated tank and the underground tank will have capacity of 2 t and 10 t respectively. The underground tank will be specially designed to be free from flood problem. Plumbing fixtures will be western type, such as water closet with cistern tank.

- Hot Water Supply

  Hot water will be supplied by electric hot water heaters in Canteen on the 1st floor and Kitchenette on the second floor.

- Soil Water Drainage

  Soil water from toilets and kitchens will be conducted to a septic tank constructed in the site and the treated water discharged to the existing U-drain ditch running along the east side of the site.

- Fire Protection System

  Indoor fire hydrant system will be provided according the Japanese Fire Code. Power for the fire pump unit will be supplied from the diesel generator.

j) Air Conditioning & Ventilation Systems

- Air Conditioning Systems

  Airconditioning system will be provided to counter the high temperature high humidity summer in the region to such major rooms as Seminar Rooms, Multipurpose Room, Administration Office, Library, Lobby and Director Rooms. Airconditioning equipment will be split multi-type units which can individually be controlled locally. Indoor units will be either ceiling cassette type, wall mounted or floor mounted types according to the room conditions.

・ Ventilation System

Air-conditioned spaces will be accompanied with ventilation equipment to take in outdoor fresh air but they wil be of heat transfer type to reduce energy loss and thereby running costs. Other spaces such as Toilets where ventilation is necessary will be provided with wall mounted propeller fans.

The above building service systems are summarized in the following table 2.3.

Table 2.3 Summary of Building Service Systems

Room	A/C	V	Water	Lighting		Power Outlet	Paging	Tele-phone
				Normal	Emergency			
Lobby	○	○h		150	150	○	○	
Library	○	○h		300	150	○e		○i
Guidance		○h		300		○		○i
Canteen	○	○	○hw	150	-	○e		
Multi-Purpose	○	○h		300	300	○	○	○i
Seminar Room (1), (2)	○	○h		300	300	○e	○	○i
Computer Room	○	○h		300	300	○		○i
Culture Exchange Room	○	○h		300	10	○		○
Japan Club	○	○h	○	300	10	○		○
Director Room	○	○h		200	150	○		○
Reception Room	○	○h		200	10	○		
Administration Office	○	○h		300	150	○		○
Lecturer Booth	○	○h		300	150	○		○
Instructor Room	○	○h		300	150	○e		○
Meeting Room	○	○h		300	10	○		-
Storage		○		100	-			-
Kitchenette		○	○hw	100	-	○		-
Corridor, Stair				150	10			-
Toilets		○	○	150	10			-
Mechanical Room		○		100	10			-

A/C : Airconditioning
V : Ventilation
h : Heat transfer type
hw : Hot water
e : Grounded
i : Internet connection

2-3-3 Basic Design of Training Equipment

The Training Equipment component of the Project will be comprised mainly of audio-visual equipment and computers for training and facilities for information services and administrative office equipment and furniture.

(1) Outline of Training Equipment

The Training Equipment will be provided for all 3 zones of the Project Facility; Cultural Exchange/Lobby Zone, Seminar Zone and Administration Zone as outlined below:

1) Cultural Exchange / Lobby Zone

The Cultural Exchange / Lobby Zone will be a place to receive visitors and trainees and is vertically composed of Lobby on the first floor, Library on the mezzanine floor and Cultural Exchange Room on the third floor, where information services and cultural exchange will be rendered and conducted for these people.

- Lobby: Lobby will have a 42 inch plasma flat panel display unit showing continuously video programs introducing Japan's culture, technology and nature. Control unit for it is installed in the Control Desk in Library.
- Library: Library will have 10 booths for viewing the Internet, which can be connected to a printer and copy machines. In addition, 2 units of audio-visual booths for viewing video programs on Japan's culture, technology etc. will be provided for the trainees and visitors. There will be 5 units of self-study booth for the trainees which are acoustically insulated with each other, and 2 units of guidance booth where guidance services will be rendered to prospective overseas study students. Book racks with a capacity of 3000 will be initially provided in a stacking space for 1000 books.

2) Seminar Zone

The Seminar Zone will be located on the third floor and constituted of the Multipurpose Room, Seminar Rooms and Computer Room to conduct various seminars and lecturers.

- Multi-purpose Room: Multi-purpose Room will be formed by combining three small seminar rooms at the center of the Seminar Zone, where the movable partitions will temporarily be removed, affording a large space capable of accommodating over 100 people. To create further larger space, all five seminar rooms can be combined by removing all movable partitions in the same way, which will enable accommodation of over 190 people. Multi-purpose Room will have audio-visual equipment for various presentation purposes, including sound system, video projector, computer presentation unit, screens etc. to support various seminars and lectures.
- Seminar Rooms: The rooms laid down at both ends of the Seminar Zone are designated as Seminar Room with a general function of holding business seminars, which will accommodate about 40 people. They will each have one set of computer presentation equipment, and a whiteboard. As regards the language laboratory equipment (LL Equipment) which was requested by the Vietnamese side, they will not be included in the scope of supply of the Training Equipment as use of this kind of mechanical means is not considered suited to the man-to-man training method employed by the Japanese side. And, as regards the booth for simultaneous interpreter at the time of a large

special lecture by a foreign lecturer, the Training Equipment portion will make spatial provisions in the Storage.

- Computer Room: Computer Room will have 20 computer sets for the trainees and one server computer for the instructor together with a printer. The computers will be joined in a LAN system through a free-access floor raised by 150 mm above the surrounding floor. Uninterrupted power supply unit (UPS) will be individually provided to the computers.

3) Administration Zone

The Administration Zone is located on the second floor constituted of Director Rooms, Administration Office, Reception Room, Meeting Room, Instructor Room etc. where administrative services are rendered.

- Director Rooms: Two Director Rooms will be provided as there will be a representative both from Vietnam and Japan sides during the Project-type Technical Cooperation period. The Rooms will be furnished with book shelves.
- Reception Room: Reception furniture will not be included in the Training Equipment list.
- Administration Office: Lockable cabinets will be provided for 7 staff along with a copy machine and facsimile machine.
- Lecturer Booths: Lecturer Booths will used by Vietnamese external lecturers. They will be formed by erecting low-partitions in a corner of Administration Office.
- Instructor Room: The Room will be used by expatriate experts dispatched under the Project-type Technical Cooperation Scheme.

The equipment and furniture provided in the above rooms are summarized in the Table 2.4 below.

Table 2.4 Equipment & Furniture List

Room	Computer	Display	Speaker	AV terminal		Booth	Desk	Chair	Notes
				Video	Sound				
1. Lobby Zone									
Lobby		○42"PD	○	○	-	-	-	○12	
Library	○10	-	-	○	△	○	○	○12	UPS
Guidance	-	-	-	○	△	○	○	○	
Canteen	-	-	-	-	-	-	-	-	
2. Seminar Zone			-						
Multi-purpose	△	-	○	○	○	-	○40	○120	
Seminar 1,2	△	-	○	○	○	-	○16	○50	
Computer	○20+1	-	-	-	-	-	○21c	○21	UPS
Exchange	△	-	-	-	-	"Tatami"	-	-	
Japan Club	△	-	-	-	-	locker	-	-	
3. Administration Zone									
Director 1,2	△	-	-	-	-	-	○	○	toilet
Reception		-	-	-	-	-	-	-	
Administra-tion Office	△	-	-	-	-	-	○	○	
Lecturer Booth	△	-	-	-	-	○	○	○	
Instructor Room	△	-	-	-	○	○	○	○	
Meeting	△	-	-	-	-	-	○	○	
Storage	-	-	-	-	-	-			
Kitchenette	-	-	-	-	-	-			
4. Others						-			
Corridor, Stair	-	-	-	-	-	-	-	-	
Toilets	-	-	-	-	-	-	-	-	
Machine	-	-	-	-	-	-	-	-	

○ : indicates equipment provided (Training equipment such as computer)

△ : indicates computers can be connected. Affixed number means number of equipment.

○12: Numbers after symbols indicate number of equipment and furniture provided.

UPS: uninterrupted power supply unit

c21 means 21 sets of computer desk is provided in Computer Room.

PD: Panel display unit

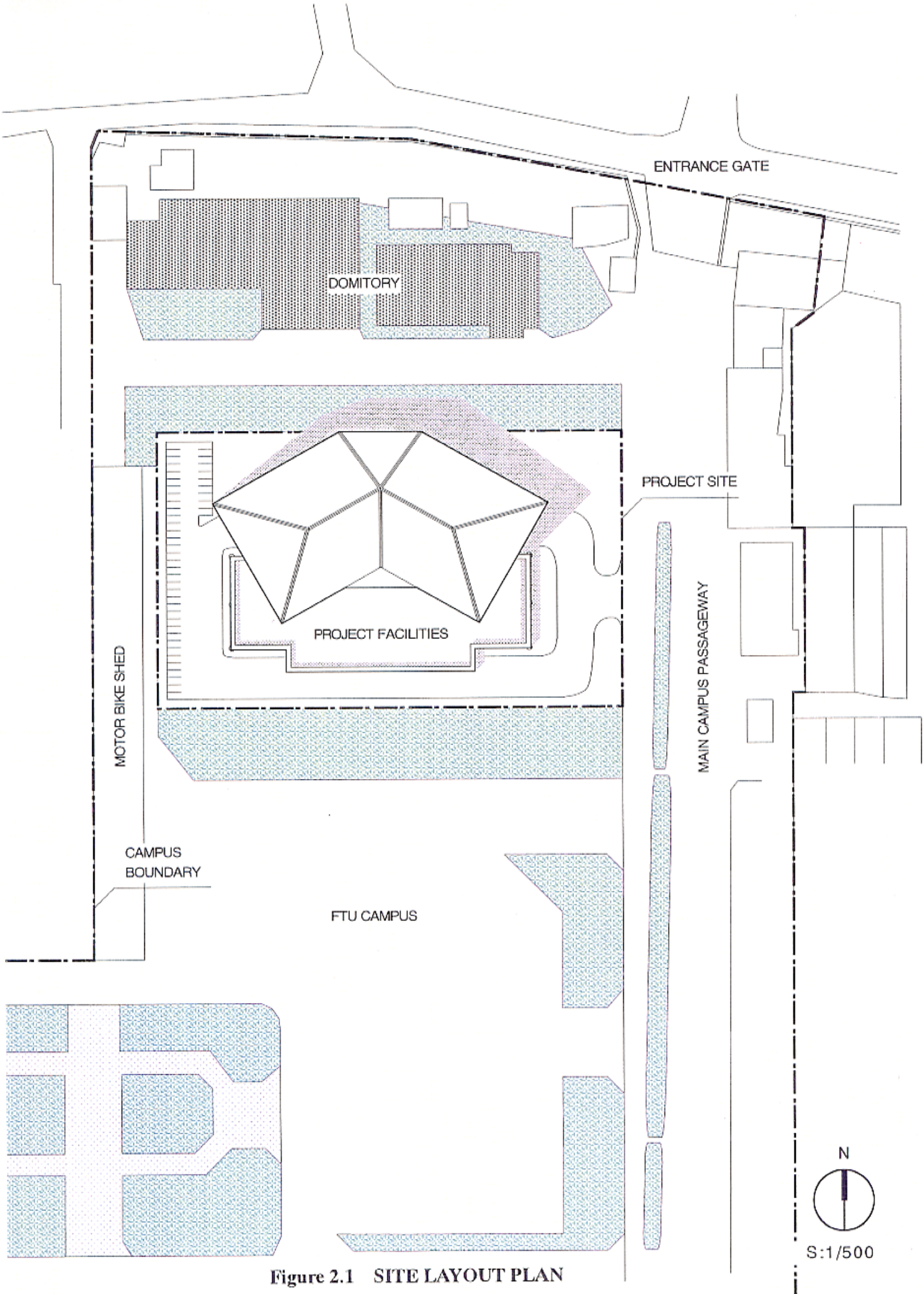


Figure 2.1 SITE LAYOUT PLAN

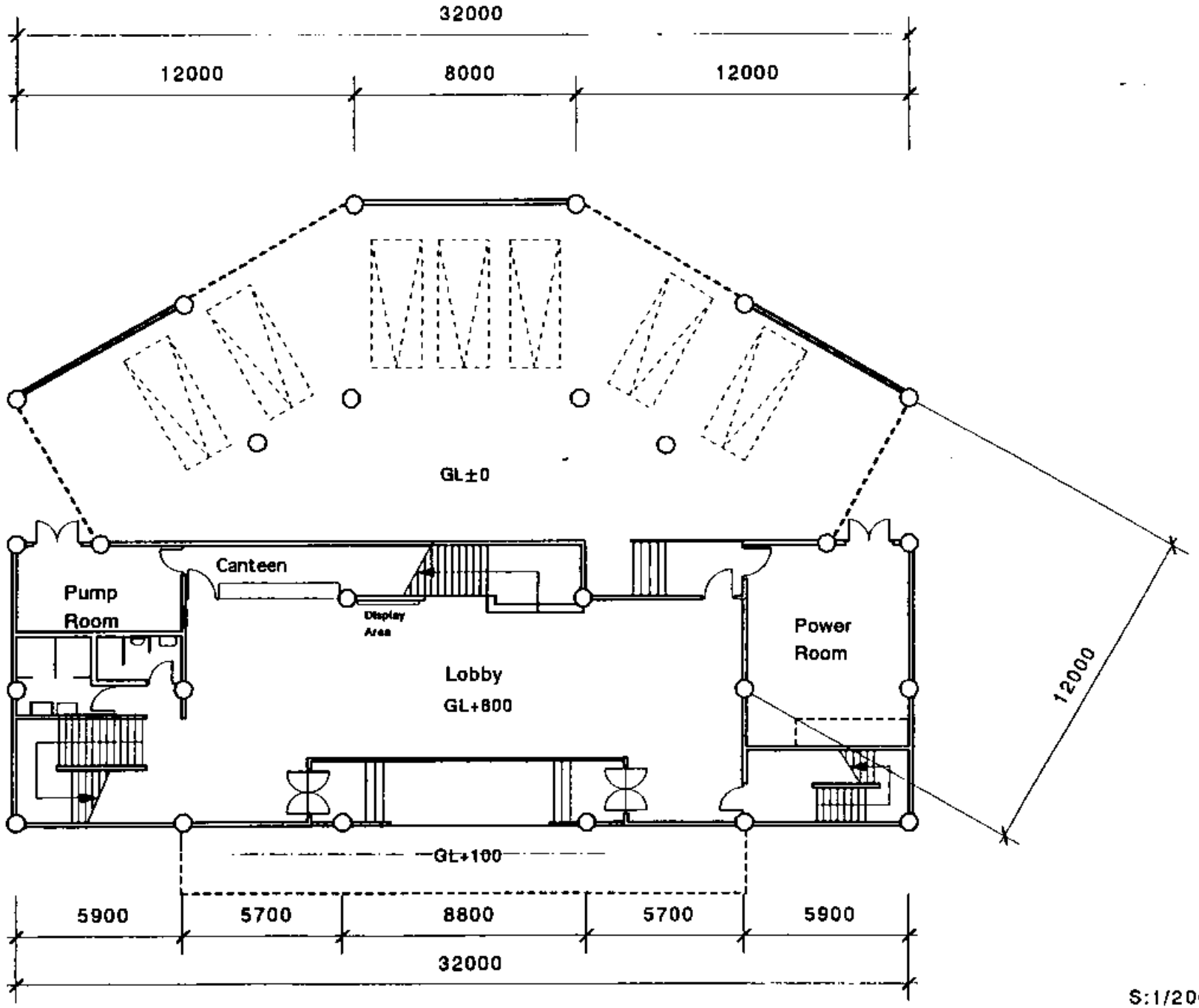


Figure 2.2 1ST FLOOR PLAN

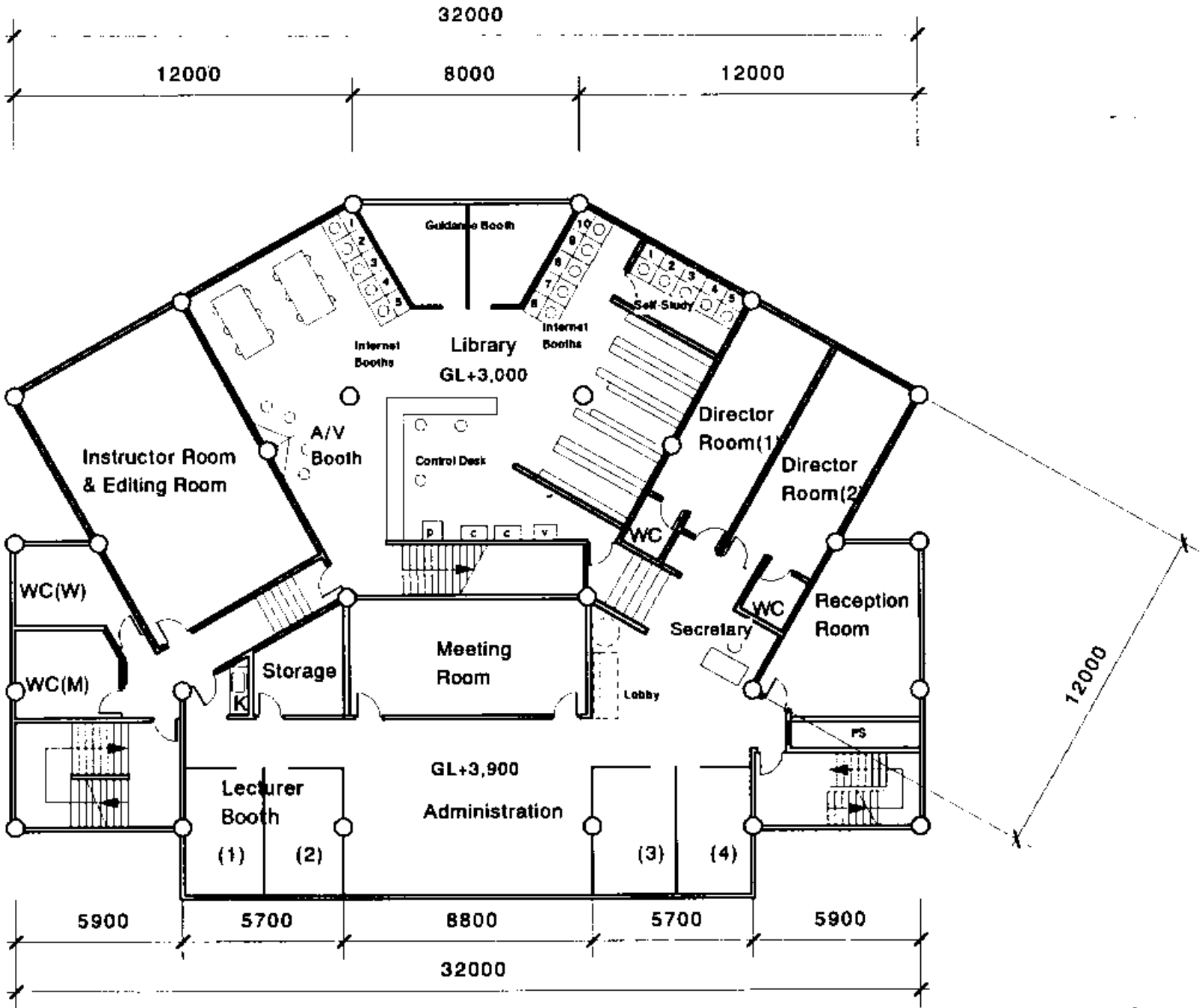


Figure 2.3 2ND FLOOR PLAN

S:1/200

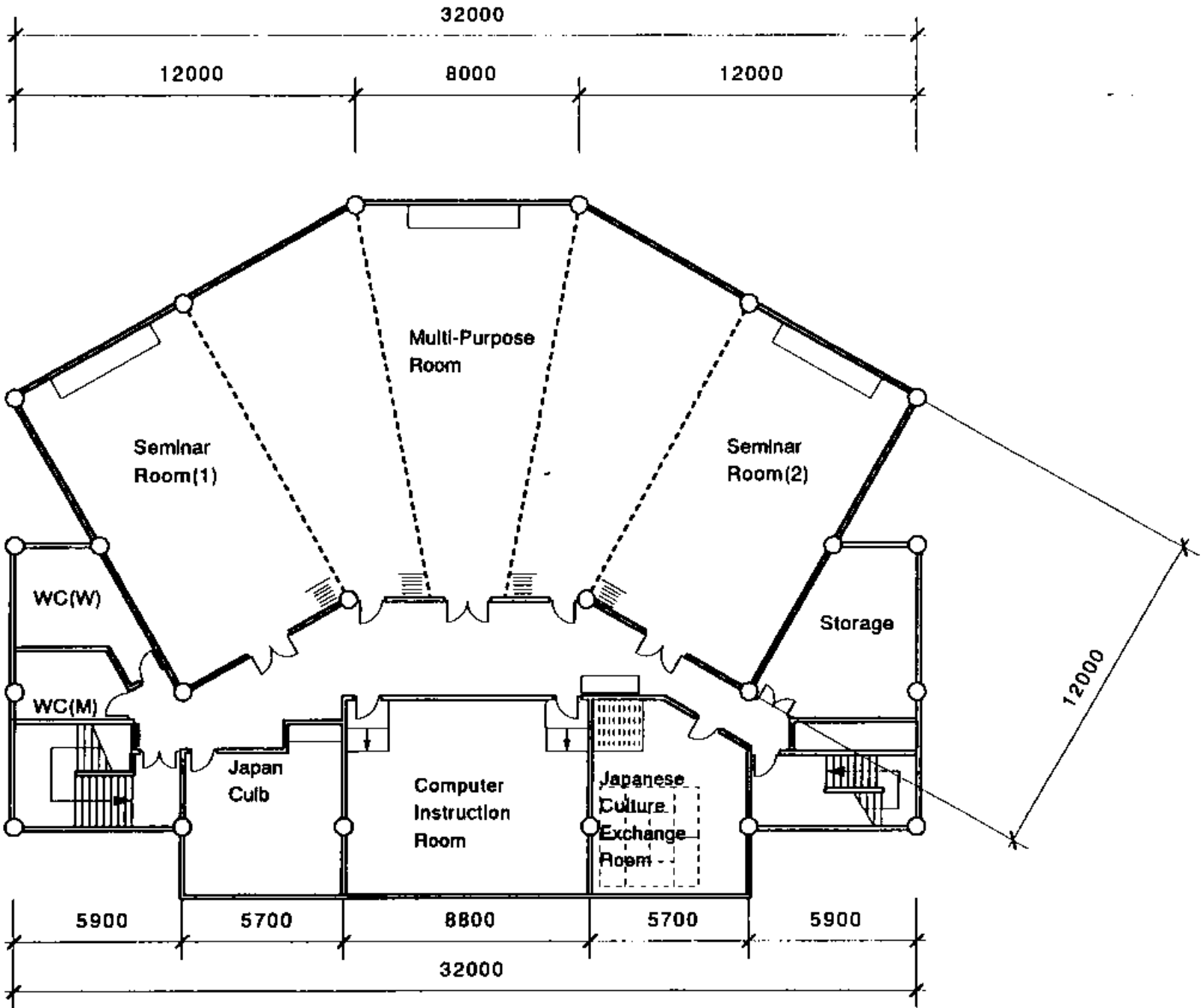


Figure 2.4 3RD FLOOR PLAN

S:1/200

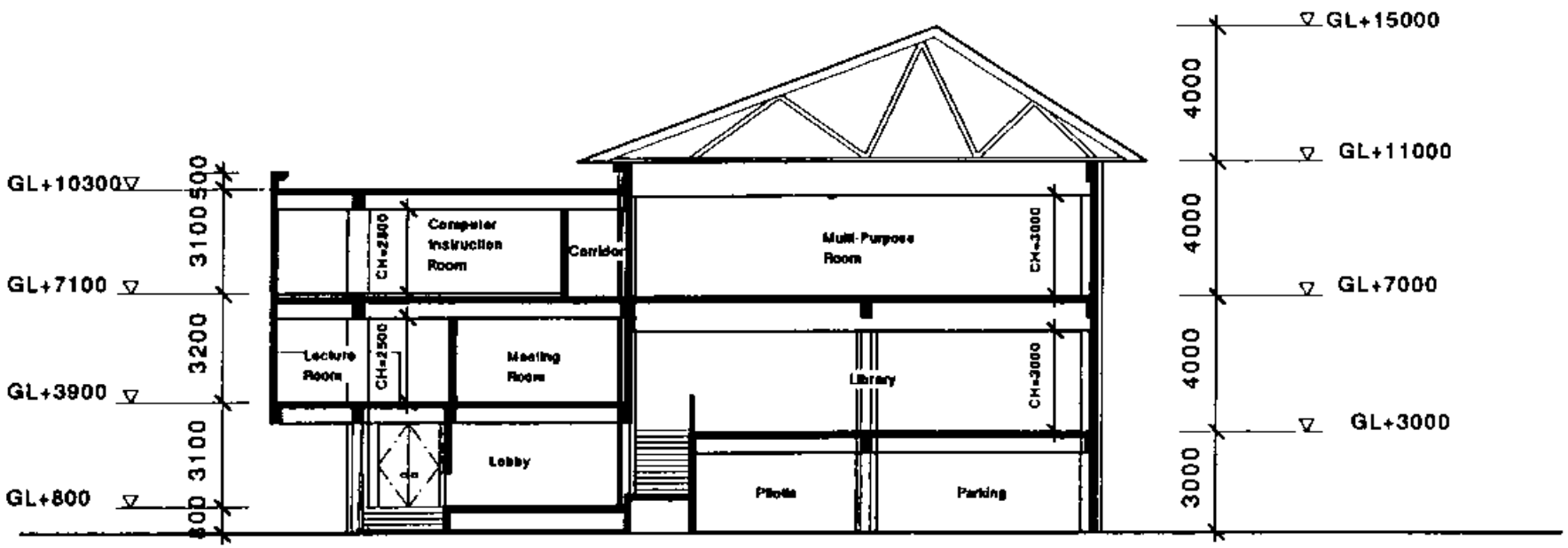


Figure 2.5 SECTION

S:1/200

S:1/200

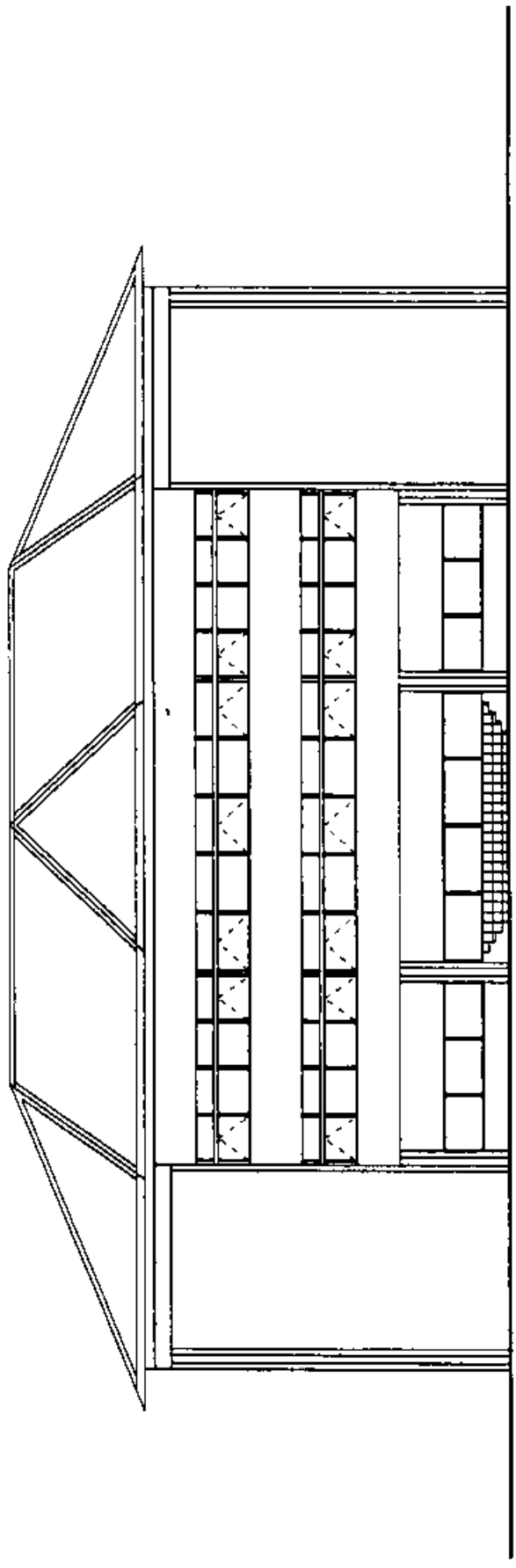


Figure 2.6 SOUTH ELEVATION

S:1/200

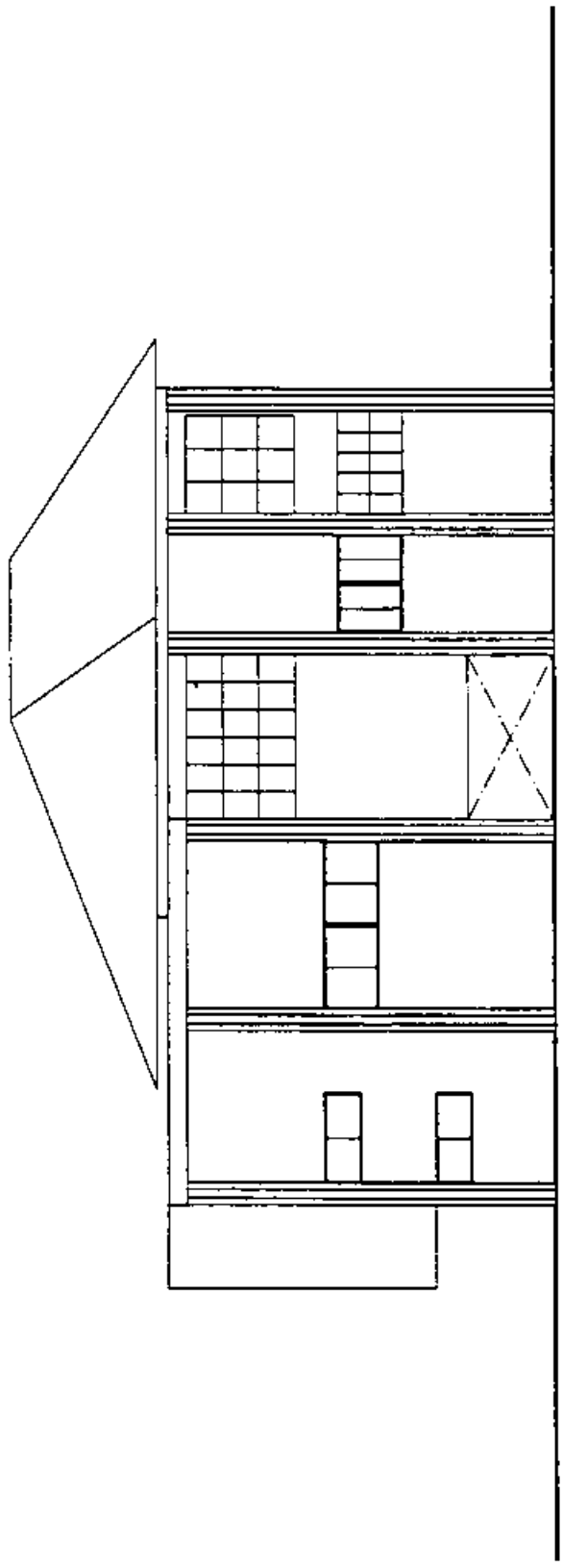


Figure 2.7 EAST ELEVATION

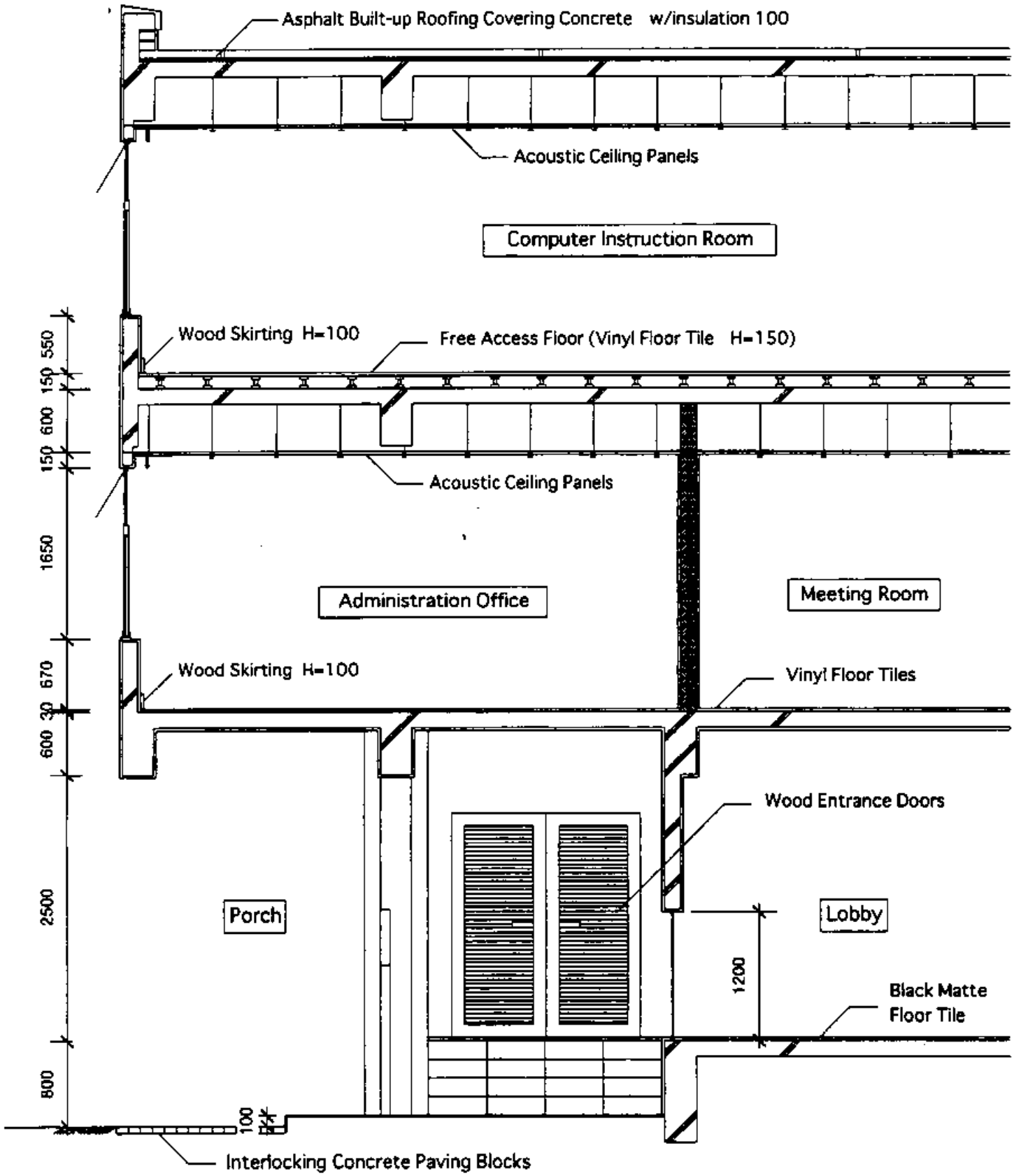


Figure 2.8 SECTIONAL DETAIL (1)

S:1/50

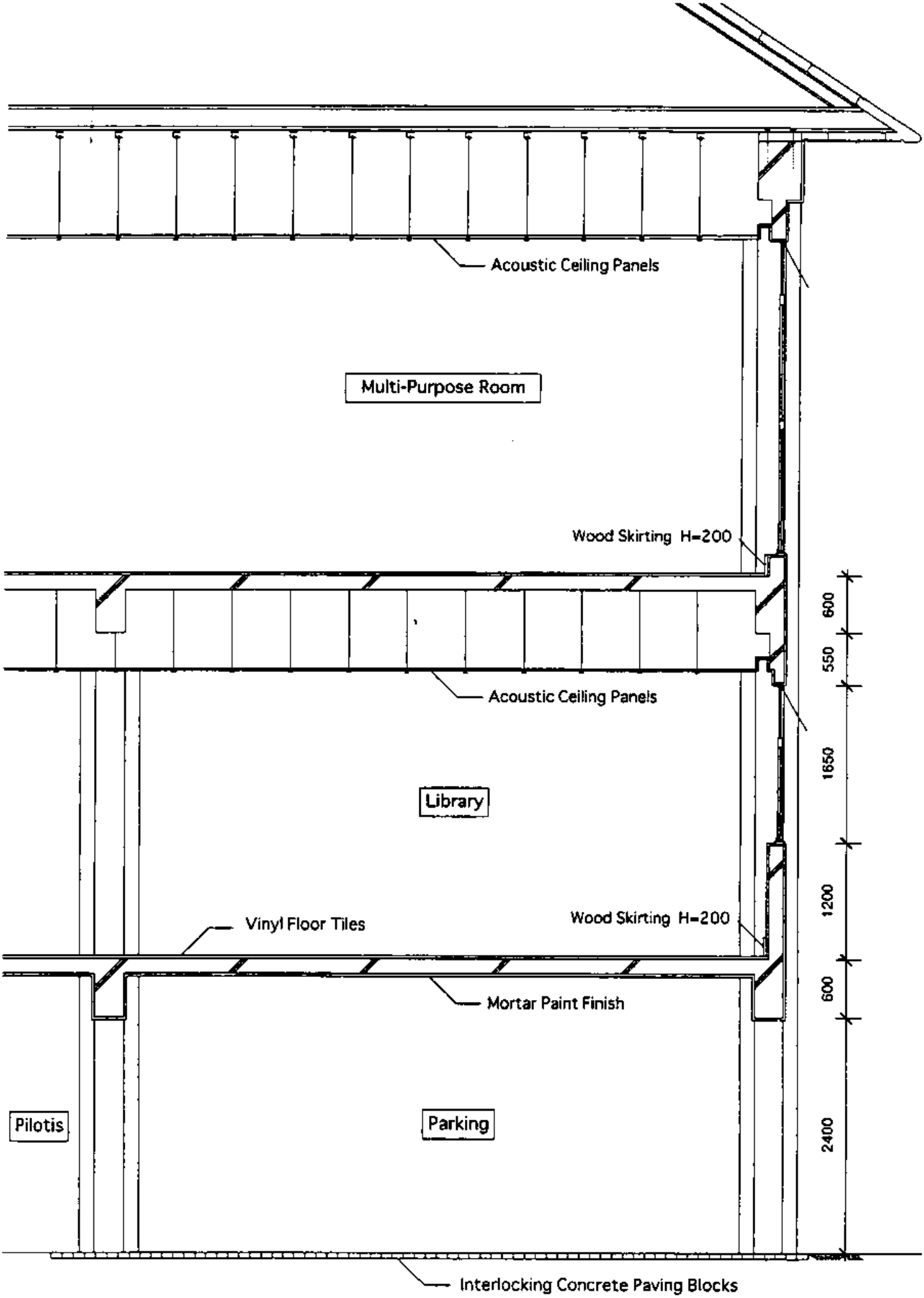
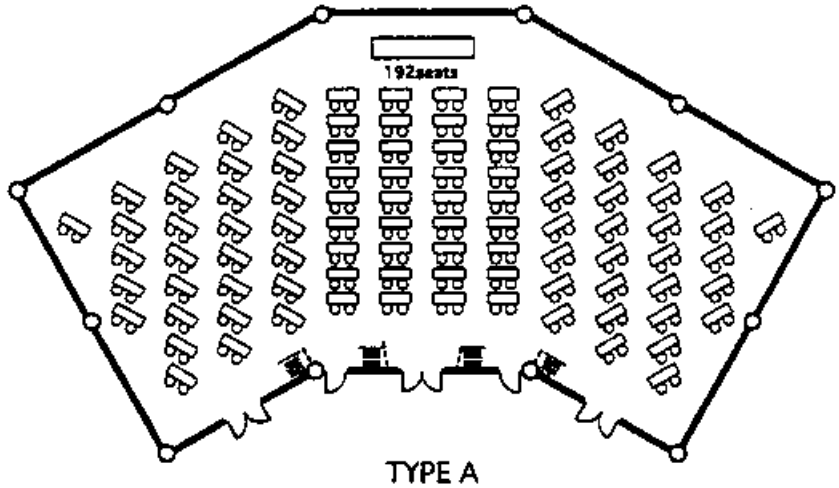
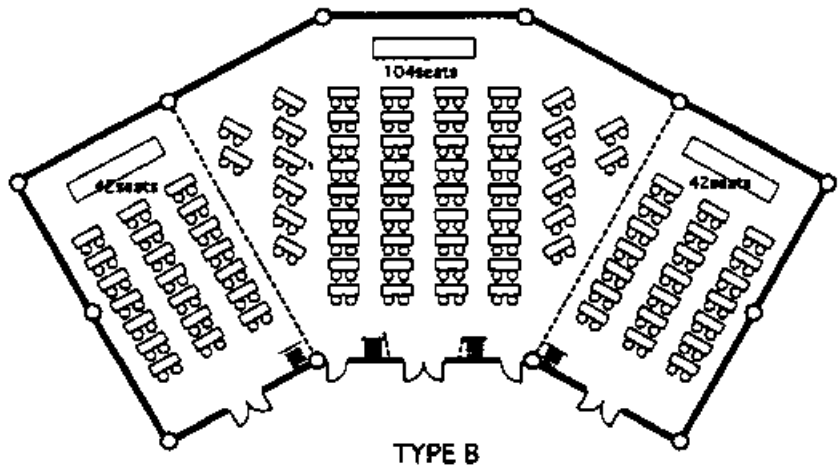


Figure 2.9 SECTIONAL DETAIL (2)

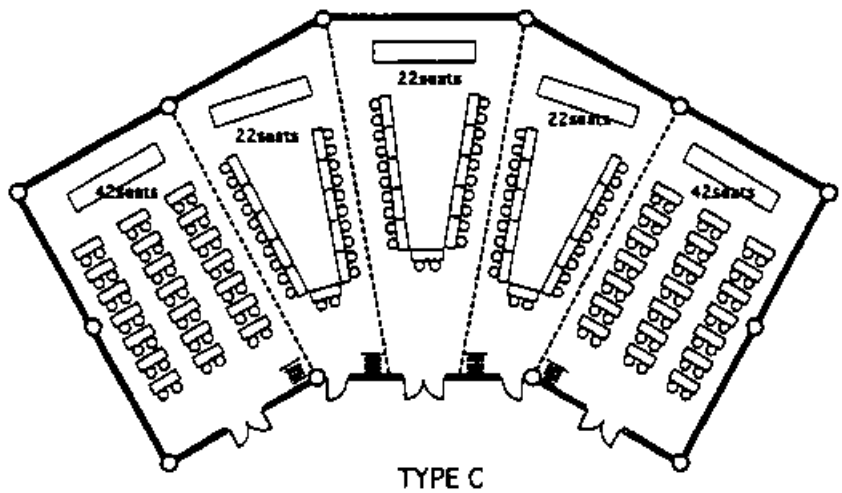
S:1/50



TYPE A



TYPE B



TYPE C

Figure 2.10 SEATING LAYOUT IN VARIOUS ROOM CONFIGURATION