

(6) Electrical System Design

1) Power Receiving/Transforming System

Electricity of 11 kV will be supplied from the Egyptian Ministry of Electric Power.

• Main Equipment for Receiving/Transforming System

- High Voltage Protection : LBS + PF
- Transformer : Oil type mould style
1,000 kVA × 2
- Low-voltage circuit breaker : air circuit breaker
circuit breaker for wiring

• Power Distribution System

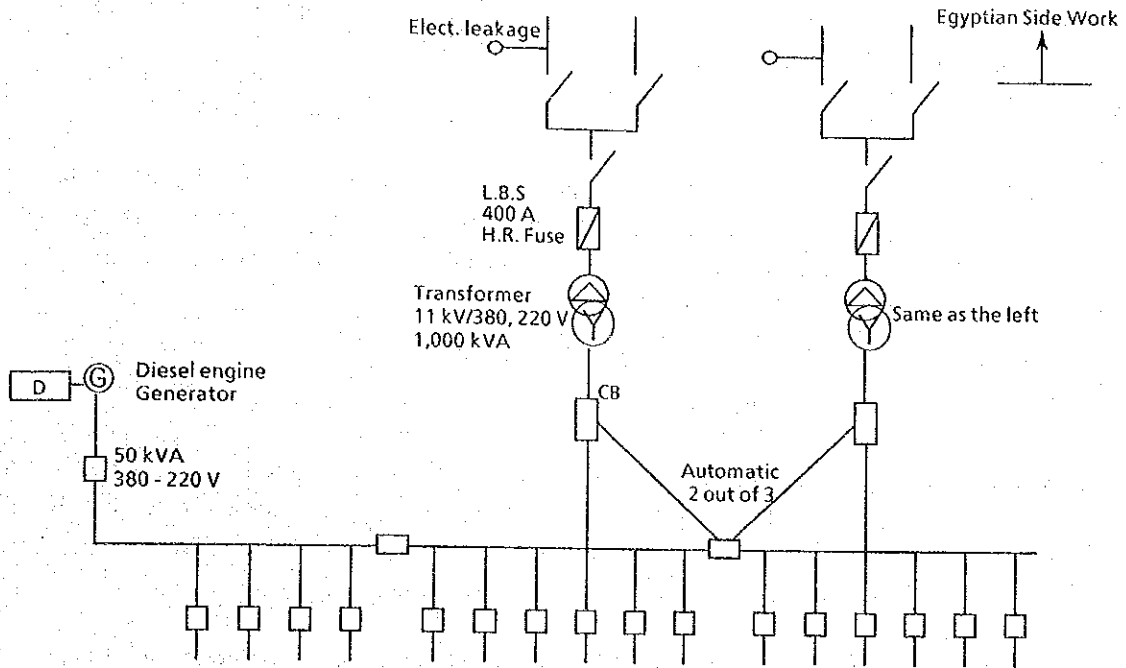
- | | | | |
|--------------------------|----------------|-------|-------|
| motive power load | 3-phase 3-line | 380 V | 50 Hz |
| lighting/receptacle load | 3-phase 4-line | 220 V | 50 Hz |

2) Independent Power Plant System

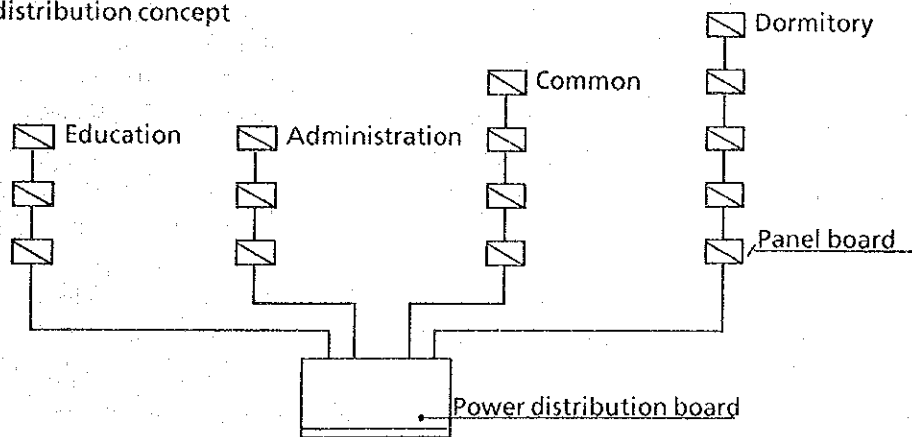
Diesel engine type independent power plant system shall be provided as back-up power source for emergency power load. The load will be for fire fighting pump and water pump. The generator will have a capacity of 50 kVA, and the oil tank shall have a capacity to hold enough fuel for 3 hours.

Electrical System

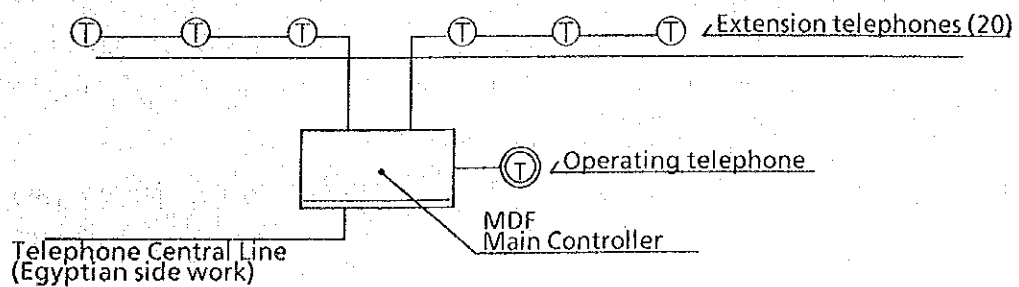
1. Electrical system



3. Power distribution concept



6. Telephone system concept



3) Main Power System

CV cable, PVC electric wires, etc., shall be used as main power lines from the power distribution panels in the Electricity Room to the power control panels and distribution panels for electric lamps. The main lines shall fit into cable racks and electric wire pipes.

4) Motive Power System

Motive power panels shall be provided for supplying electricity to airconditioning, ventilating, sanitary devices and elevators, etc. The electricity will subsequently be supplied to each device through distributed wiring.

5) Electrical Lamp/Receptacle System

- Illuminating Devices

Highly efficient fluorescent lamps shall be mainly used, to be partially supplemented with incandescent lamps where required by the architectural design. The types of lamps commonly available in Egypt shall be adopted.

The following shows the required illuminance for the main facilities:

Classroom	approx. 300 Lux
Library	approx. 300 Lux
Meeting Room	approx. 200 Lux
Administration Dept.	approx. 200 Lux
Student Dormitory	approx. 150 Lux

- Receptacles

Receptacles for general use and those for special devices shall be provided as required in each location.

6) Communication System

- Telephone System

MDF, telephone switchboard and telephone device for relaying shall be installed in the Administration Office. Extension phones are to be provided in the rooms of the Administration Dept. as well as the rooms allocated to the teaching staff. The telephone line as far as the MDF will be prepared by the Egyptian side.

Telephone Devices for Extensions	20 (push-button type)
No. of lines	5
MDF 50P	

- P.A. System

P.A. System shall be provided for paging service.

Two systems are to be installed; one for the Educational Dept., Administration Dept. and Common Area and the other for the Student Dormitory. The Auditorium will be furnished with its own P.A. system.

- Interphone System

Interphone systems shall be provided for maintenance and management of the facilities and also as a means of nighttime reception for students.

Paired interphone (1 main, 5 subs) × 2 systems

Nighttime reception interphone × 2 locations

- TV Antenna System

An antenna will be installed on the rooftop, with TV connecting terminals in the necessary rooms.

- Automatic Fire Alarm System

Automatic fire alarm system shall be provided through discussions with the relevant parties. The Student Dormitory is to be equipped with its own receiving subpanel.

(7) Equipment Plan

The following points have been taken into consideration for selecting and determining the quantity of the required equipment.

- 1) In determining the composition, specifications and standard of the equipment, it is important to have full understanding on the technical level of the teaching staff to ensure that the provided equipment will be adequately and effectively utilized and that the equipment are within the technical level of nursing practiced in Egypt. Efforts should be made to select mainly the models that are popularly used in existing nursing education facilities in Egypt, so that the technical burden of the Egyptian side for maintenance and management will be alleviated. The equipment required for the necessary and essential nursing education of Egypt shall be provided.
- 2) Priority should be placed on selecting durable and general-purpose equipment required for basic day-to-day nursing activities, rather than equipment that can be used only for specialized areas of nursing education or under special circumstances.

- 3) Equipment that can endure the meteorological conditions of Egypt shall be selected. The circumstances of local infrastructural systems should be taken into account in the selection, so as not to pose problems in maintenance.
- 4) High quality equipment with established international reputations shall be selected. They should be of a high safety level that will not cause problems such as environmental pollution after installation.
- 5) Equipment that are easy to operate and maintain, inexpensive in terms of maintenance costs and convenient to manage should be selected.
- 6) Provision of spare parts shall be included in the equipment plan, in order to facilitate management of the expendables and equipment which are in high demand, thereby alleviating the costs for maintenance and management.
- 7) Guidance on how to use, inspect, maintain and manage the equipment should be provided to the persons in charge on the Egyptian side at the time of installation of the equipment.
- 8) An operation manual and maintenance manual for the equipment shall be prepared for implementing this equipment plan, and the Egyptian side shall establish a system for managing them. For spare parts and expendables, the name of the person in charge at the sales agency and the name of the manufacturer shall be specified so that the Egyptian side will be able to supply them with ease.

(8) Construction Materials & Equipment Plan

In selecting the construction materials and equipment for the Project, emphasis shall be placed on adopting materials and construction methods that not only match the natural and cultural conditions of Egypt but are also commonly used locally.

The following construction material and equipment plan has been drawn up to suit the functions of each facility, with due consideration given to economy, durability, and ease of maintenance and management.

1) Exterior Finish Material

The external wall finish shall principally adopt an artificial stone finish which is a method traditionally used in Egypt and requires almost no maintenance work.

Aluminum fittings, which are already widely used in Egypt, shall be used for exterior fittings. The roofs produced with concrete slabs are to be waterproofed with asphalt and lined with heat insulating materials.

2) Interior Finish Material

Group A : Regular Classrooms, Meeting Rooms, etc.

Rooms that call for sound absorbency and illuminance levels suitable for taking lessons and studying.

Group B : Experiment Rooms and Laboratories

Laboratory rooms where experiments that simulate hospital work, etc., will be carried out. The rooms require finish materials that are chemical-resistant and hygienic.

Group C : Special Classroom (L.L. Classroom, Audio Visual Room, Nursing Research Lab.), etc.

Rooms where audio devices and computers will be installed. Adequate sound absorbency and temperature/humidity levels will be called for.

Group D : Large Classrooms, Auditorium

Facilities that will accommodate large audiences for lectures, etc., and, consequently, have strict standards for sound absorbency, ventilation, temperature and humidity.

Group E : Library

A quiet and well-lit space is required. Finish materials with sound absorbing features that can cope with natural lighting (indirect lighting) are desirable.

Group F : Office Rooms, Rooms for Teaching Staff

Commonly used finish materials that are both durable and economical shall be used.

Group G : Bedrooms

Rooms that provide a hygienic and comfortable living environment.

Group H : Dining Room, Cafeteria, Lounge, Anteroom

Rooms where food will be brought in and which consequently require finish materials that resist stains and are easy to clean.

Group I : Entrance Hall, Corridor

Finish materials that are durable, easy to manage and require minimum maintenance work are desirable.

Group J : Toilets, Utilities, Kitchen

Facilities where water will be used. Require finish materials that resist stains and are easy to use.

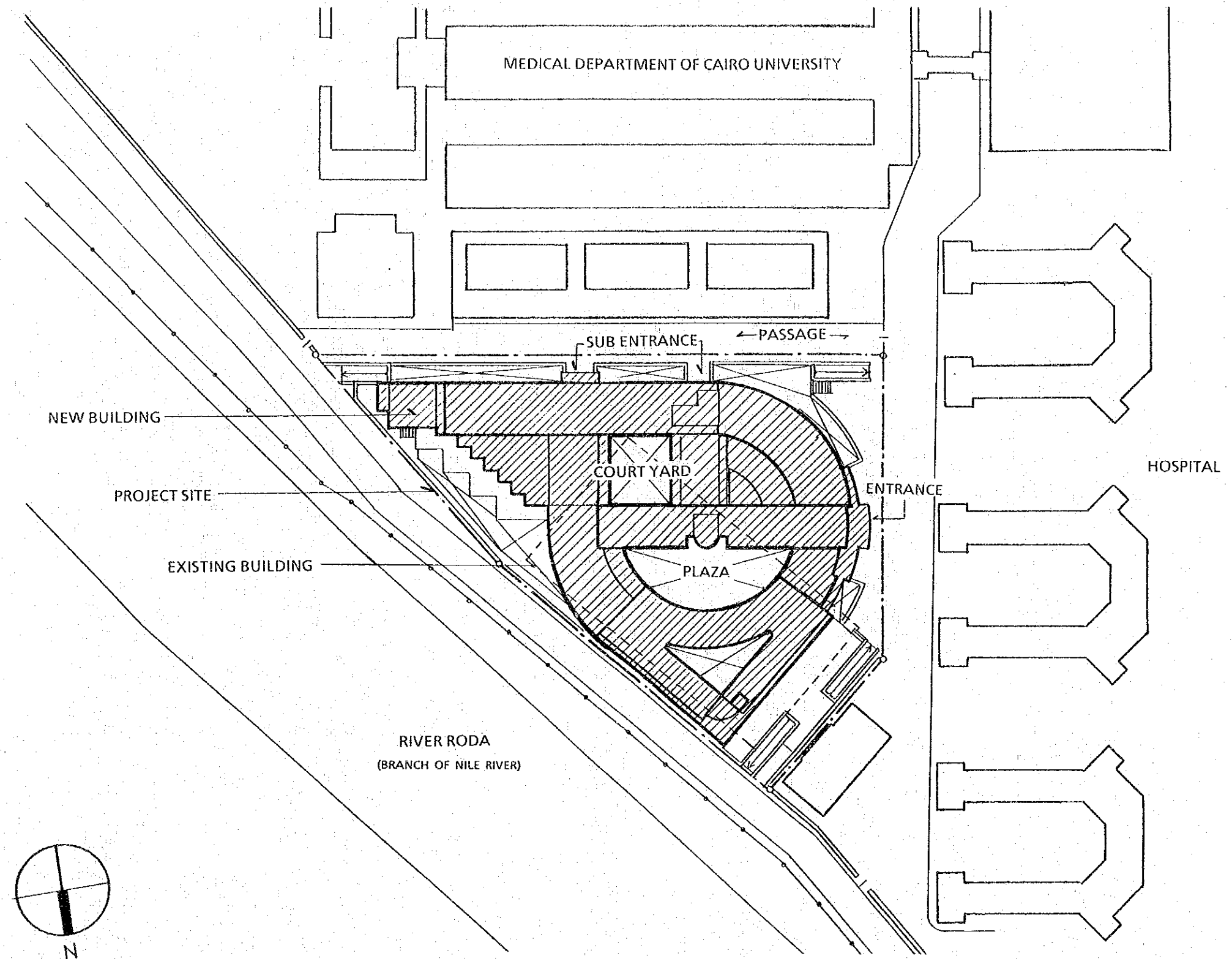
Group K : Machine Room, Storage

Facilities where durability and workability are the priorities.

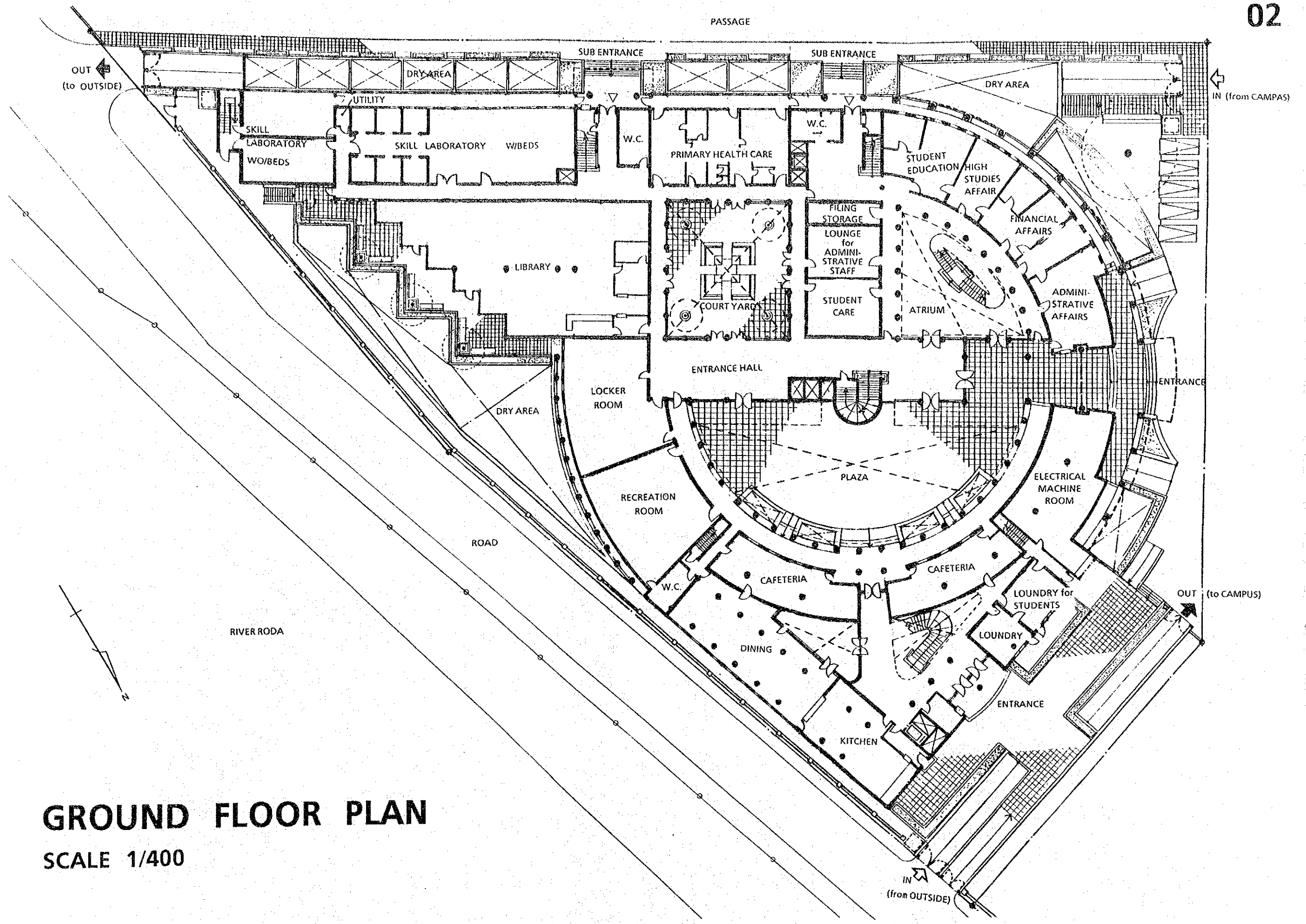
Group	Floor Finish	Wall Finish	Ceiling Finish
A	Terrazzo Block	Acoustic Wall, Mortar, Vinyl Paint	Rockwool Board
B	Terrazzo Block	Mortar, Vinyl Paint	Rockwool Board
C	Carpet	Acoustic Wall, Mortar, Vinyl Paint	Rockwool Board
D	Parquet Floor	Acoustic Wall, Mortar, Vinyl Paint	Rockwool Board
E	Carpet	Acoustic Wall, Mortar, Vinyl Paint	Grille Ceiling (Wood) Sound-Absorbing Base Material
F	Terrazzo Block, Carpet	Terrazzo Aggregate Exposed Finish by Washing	Rockwool Board
G	Terrazzo Block	Vinyl Paint	Plasterboard Paint Finish
H	Terrazzo Block	Mortar Vinyl Paint	Plasterboard Paint Finish
I	Terrazzo Block	Terrazzo Block	Plasterboard Paint Finish
J	Ceramic Tile Terrazzo Block	Ceramic Tile	Waterproof Board Paint Finish
K	Mortar	Vinyl Paint	—

(9) Basic Design Drawings

- 01 Block Plan
- 02 Ground Floor Plan
- 03 1st Floor Plan
- 04 2nd Floor Plan
- 05 3rd Floor Plan
- 06 4th Floor Plan
- 07 Basement Floor Plan
- 08 Sections 1 and 2.
- 09 Elevation (north and east sides)
- 10 Elevation (south and west sides)

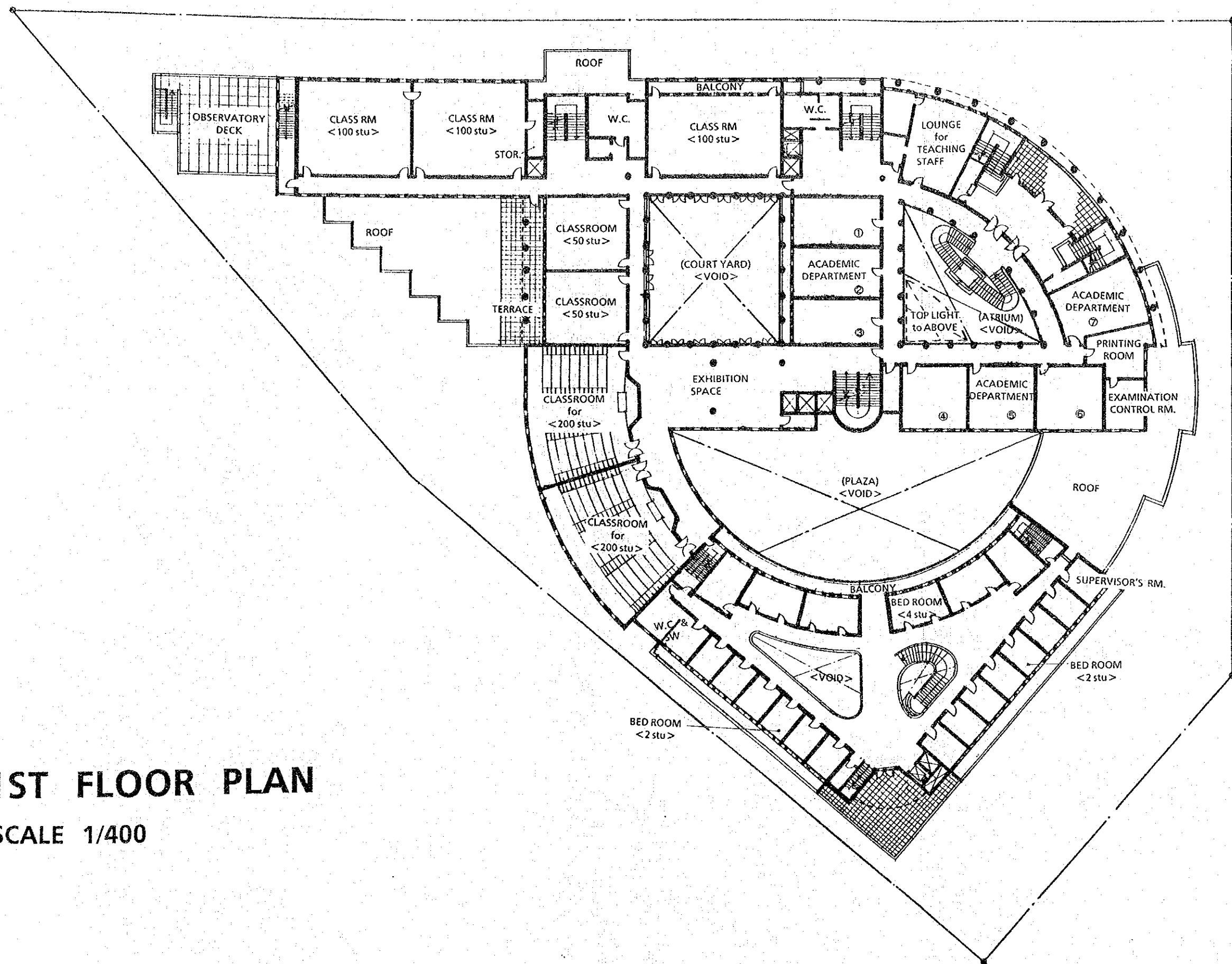


BLOCK PLAN SCALE 1/1000



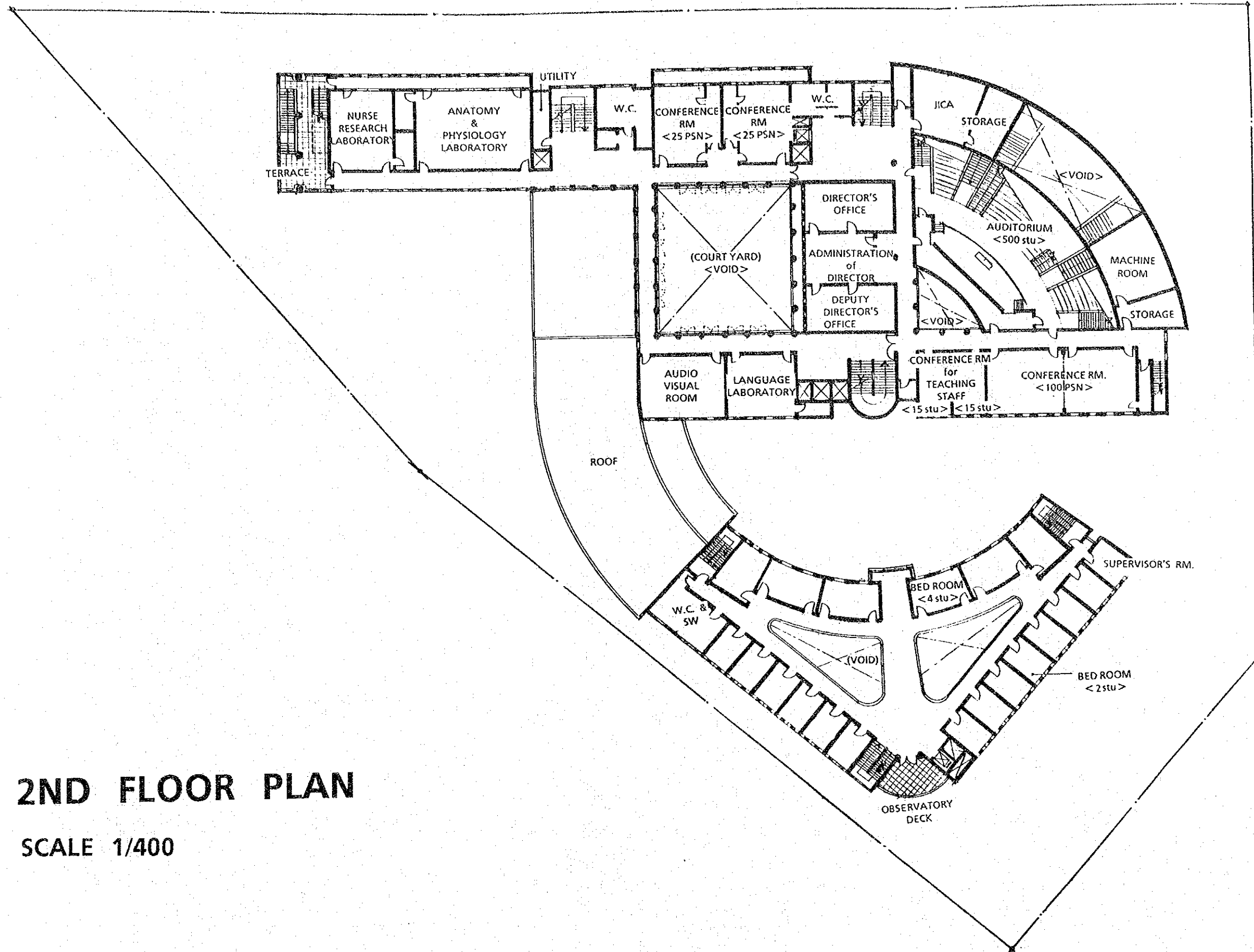
GROUND FLOOR PLAN

SCALE 1/400



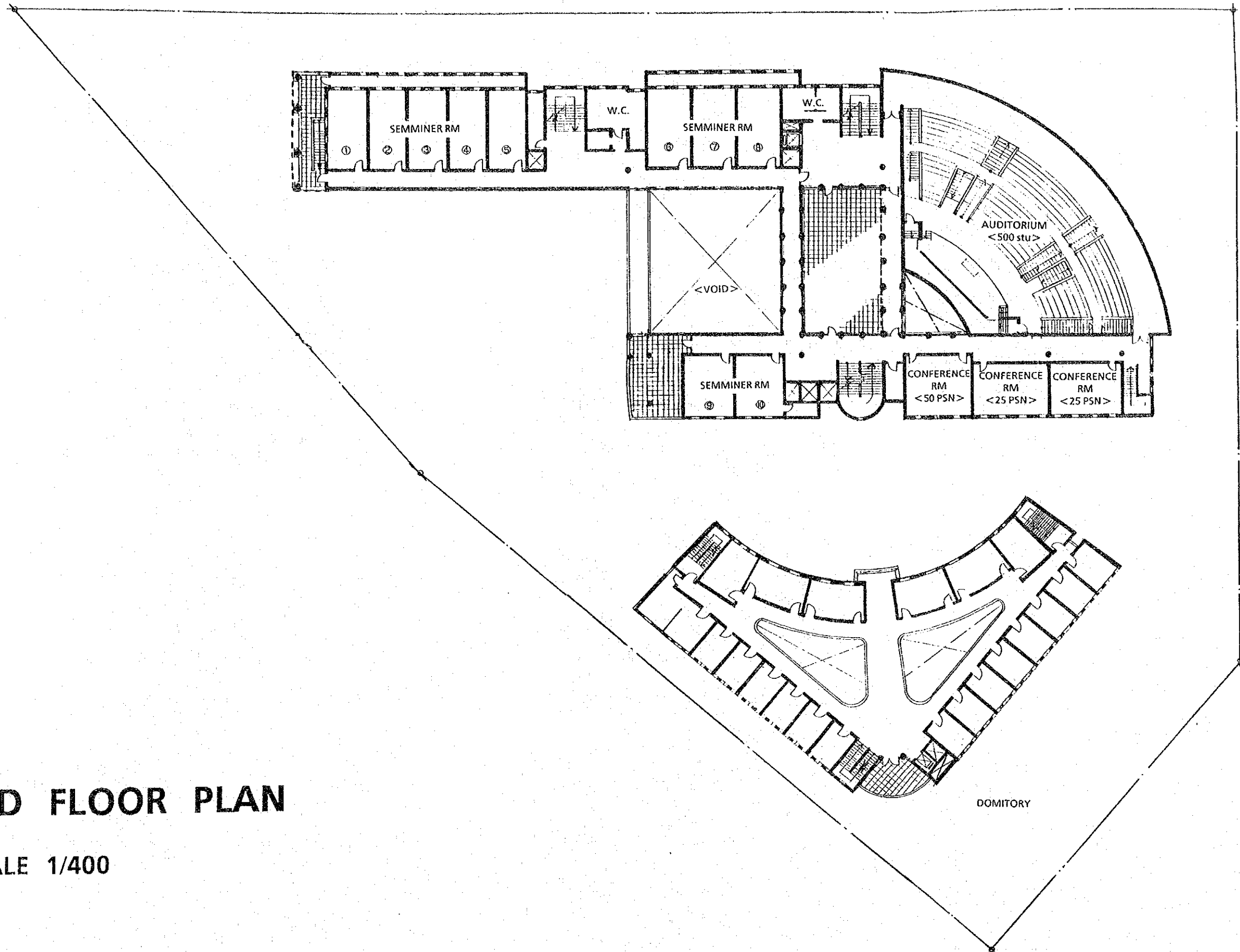
1ST FLOOR PLAN

SCALE 1/400



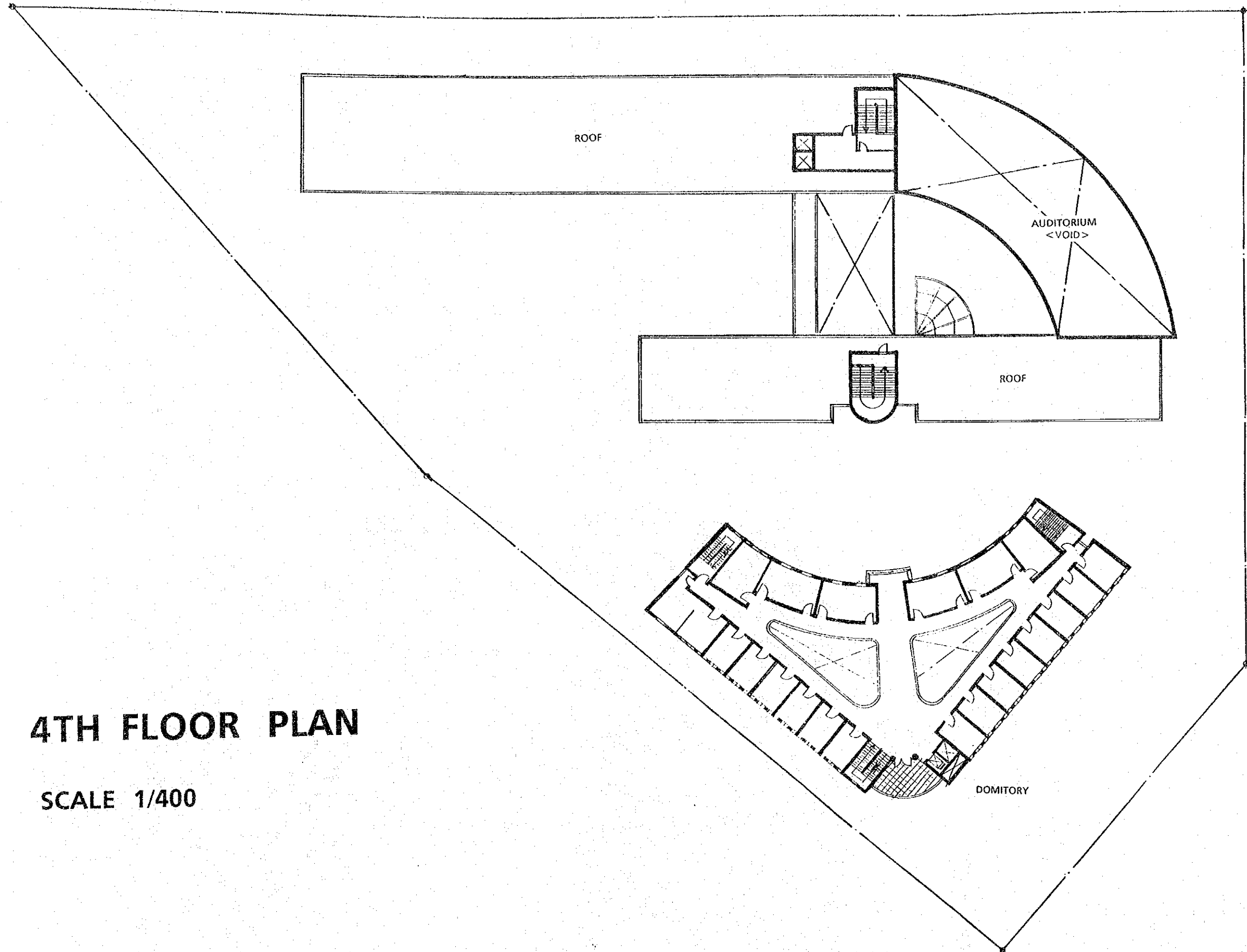
2ND FLOOR PLAN

SCALE 1/400



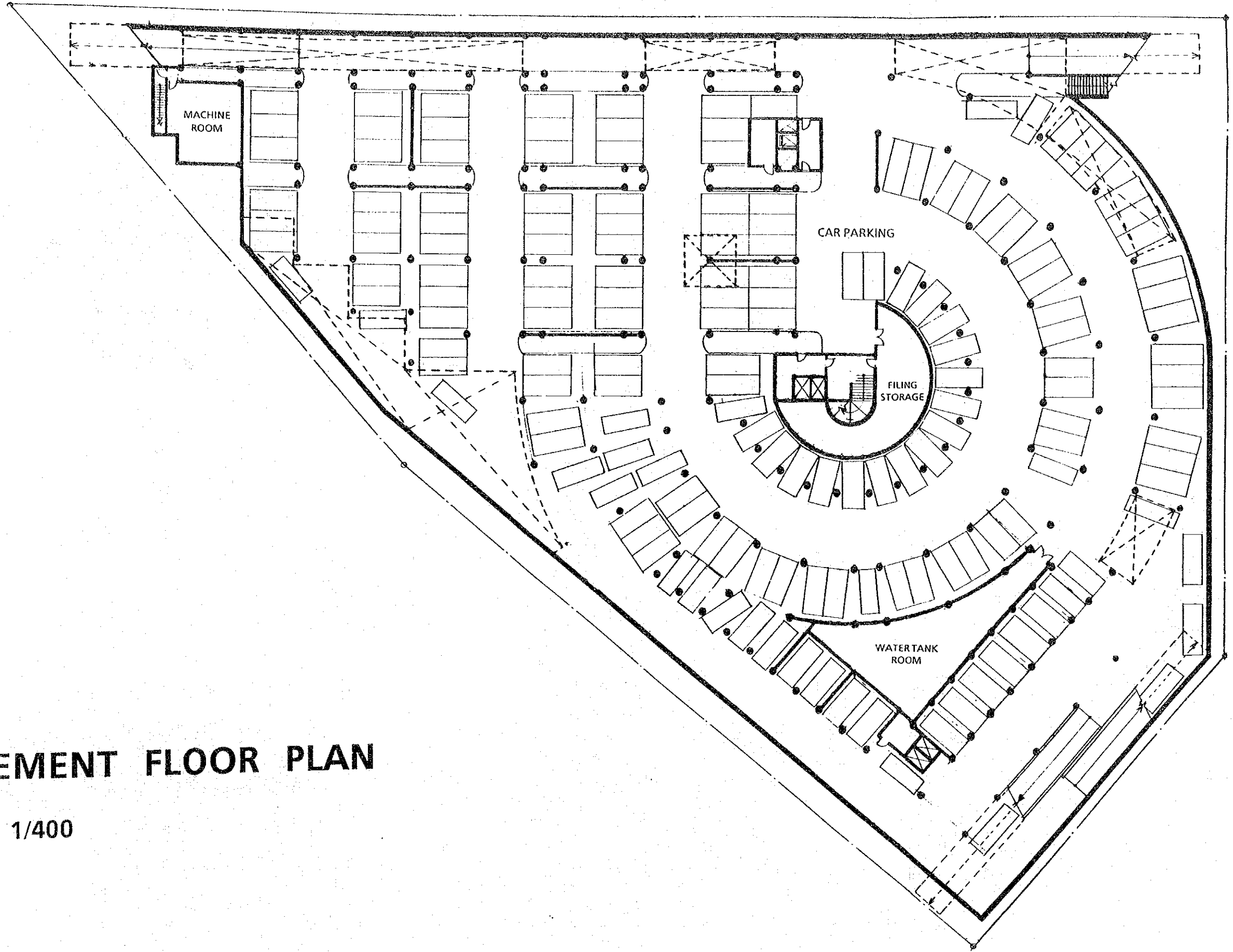
3RD FLOOR PLAN

SCALE 1/400



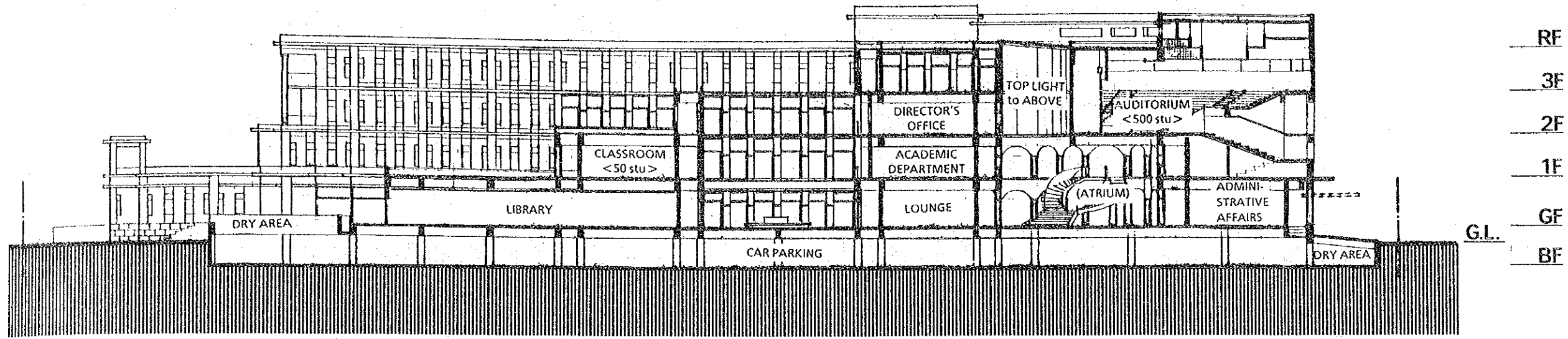
4TH FLOOR PLAN

SCALE 1/400

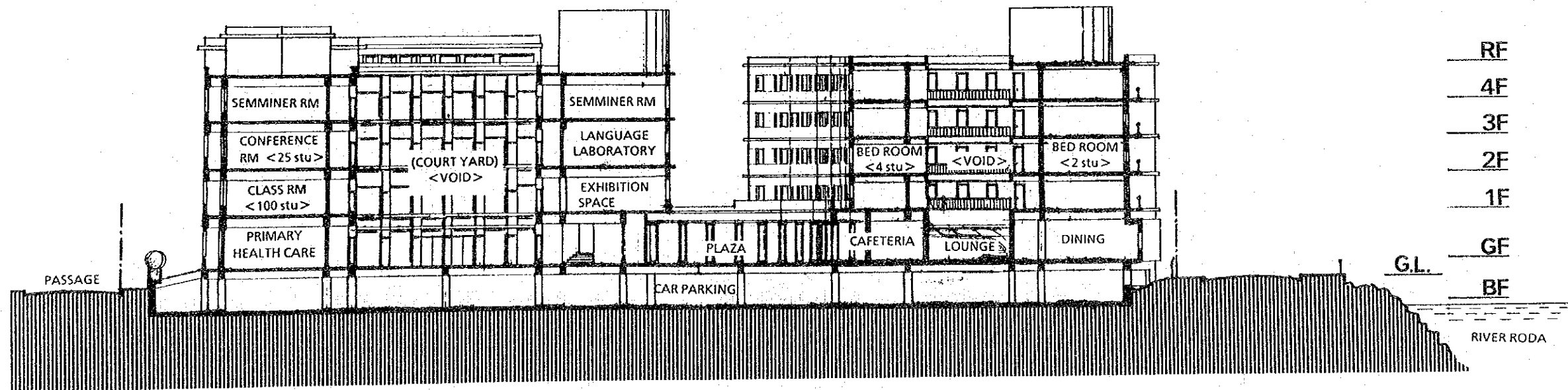


BASEMENT FLOOR PLAN

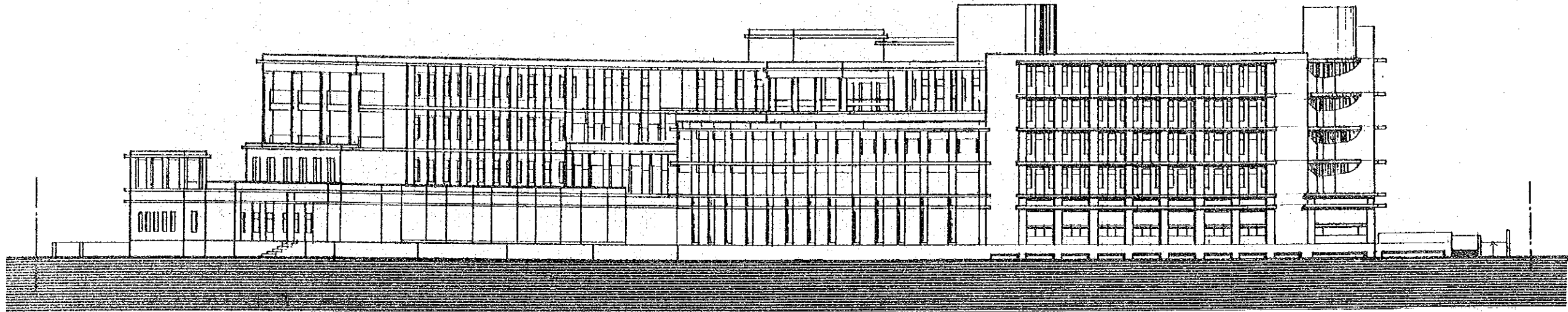
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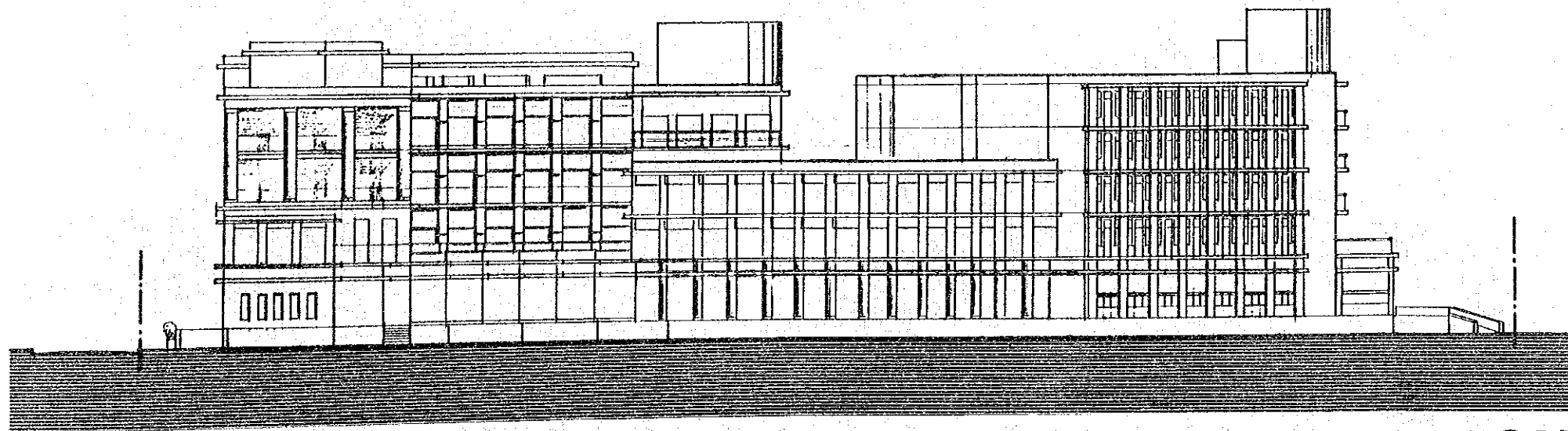
SECTION 1
SCALE 1/400



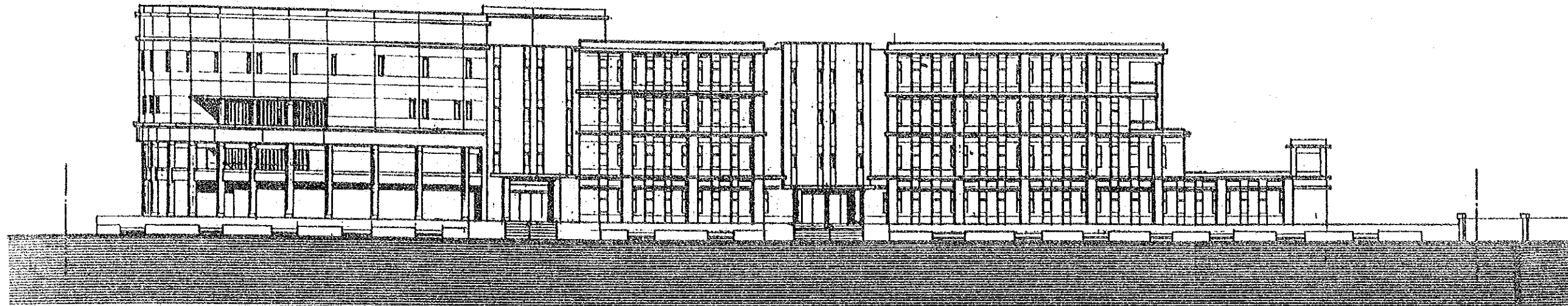
SECTION 2
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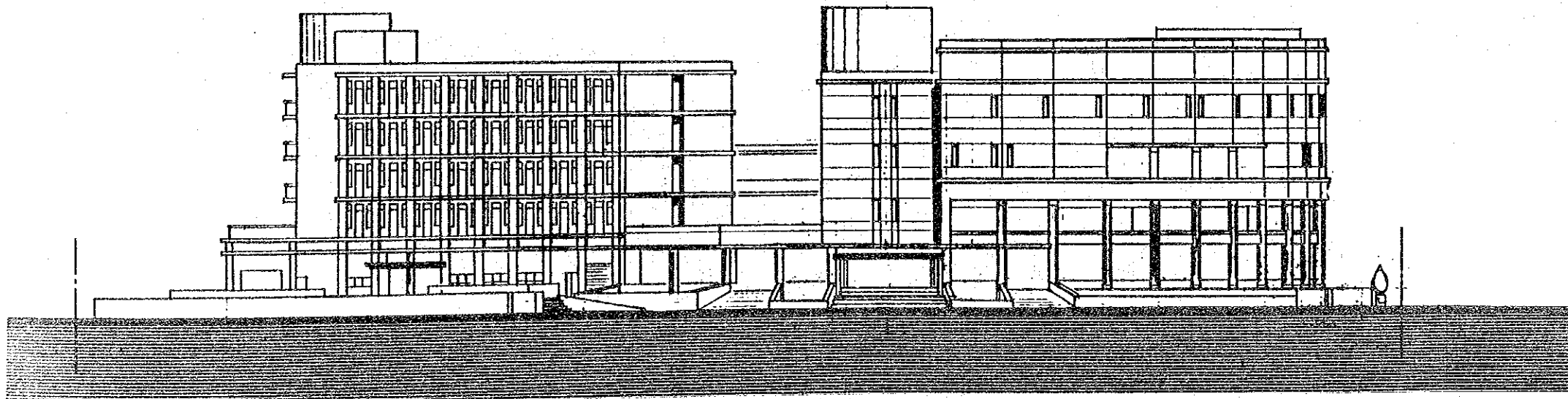
NORTH ELEVATION
SCALE 1/400



EAST ELEVATION
SCALE 1/400



SOUTH ELEVATION
SCALE 1/400



WEST ELEVATION
SCALE 1/400

4-4 Implementation Plan

4-4-1 Construction Situation in Egypt

(1) The construction situation in Egypt is summarized as follows:

- Carpenters, plasterers and workers involved with steel bars and finish work are regarded as professionals and have organizations with leaders, but the tasks of general laborers are not specialized. The average for each type of work shows that approximately 2.5 times the amount of time is required as that in Japan.
- Building materials and equipment are becoming more and more industrialized in recent years. The kinds of materials that can be used both for electrical installation work and lighting equipment are increasing.
- The prices of building materials and equipment increase at an annual rate of 15%. (While the consumer price index increases at an annual rate of 20%, that in Cairo is 15% according to the statistics compiled by a major construction firm.)
- Projects carried out under Japanese grant aid do not require building permits from architectural administration agencies as long as the design documents are approved by the bureau in charge of the project. However, the design documents must conform to local regulations on urban design.

(2) Points to take into consideration for construction work:

The facilities to be provided for the Project are RC Structures of 4 or 5 stories, and local construction companies have sufficient expertise to undertake such work. A majority of the building materials can be locally procured. However, even skilled local workers are not capable of coping with some of the materials to be imported from Japan (Refer to 4-4-4: Materials & Equipment Procurement Plan). Hence, it will be necessary to dispatch specialists from Japan. As to equipment work, because of the specialized nature of the installation work, the precision of the equipment and the necessity of receiving detailed explanations on their usage, guidance by engineers dispatched by the respective manufacturers is required.

4-4-2 Construction Policy

The facilities of the Project will be constructed within the framework of the grant aid system of the government of Japan. The Project is to be officially implemented after it has been approved by the governments of Japan and the Egypt and Exchange of Notes (E/N) has been concluded between these two governments. A Japanese consultant firm will be nominated by the government of Egypt and work will subsequently be commenced for the detail design of the facilities and equipment. Following completion of the detail design documents, a Japanese contractor selected by tendering will carry out construction of the facilities and procurement/installation of equipment. The

following is the outline of the execution of the Project and areas that require special consideration.

(1) Executing Agency for the Project

The executing agency on the Egyptian side is Cairo University and the overall responsibility lies with Chairman Khairy Samra. The executing organization of the university for this Project consists of a committee to be chaired by the Dean of the Faculty of Medicine. This committee was formally established in 1989 and will take substantial charge of all activities, in lieu of the Chairman, until the Project is completed. In a practical sense, the director of the High Institute of Nursing will lead the committee. The committee members are listed below.

Chairman	Prof.Dr. Khairy Samra	Dean of the Faculty of Medicine
Moderator	Prof.Dr. Hashem Abdel Wahab Morro	Associate Dean of the Faculty of Medicine
Member	Prof.Dr. Hussein Kamel El Din	Director of Pediatrics
Member	Prof.Dr. Hossam El Din Ahmed Mowafi	Director General of Cairo University
Member	Prof.Dr. Ibrahim Mohamed Foyad	Professor of Pediatrics
Member	Prof.Dr. Mohamad El Adawy	Professor of Engineering
Member	Prof. Dr. Cheherezade Ghazi	Director of HIN
Member	Prof. Dr. Adel Hafez	Director General of Administration
Member	Eng. Mohamed Ibrahim Hanafi	General Director of Engineering Department
Member	Prof. Dr. Ahmed Ramzy	Consultant Architect

(2) Consultant

For construction of facilities and provision of equipment covered by the grant aid for this Project, the Japanese consultant will conclude a design and supervision contract with the government of Egypt and carry out the work for the detail design of the buildings and equipment for the Project as well as activities related to the supervision of construction work. The consultant prepares the tendering documents and also acts on behalf of the executing organization of the Project for carrying out the tendering.

(3) Contractor

A Japanese general contractor (construction company) and equipment supplier selected by open tendering will construct the facilities and procure/install the equipment under the grant aid of the government of Japan.

(4) Construction Plan

Regarding the construction plan, it is necessary for the consultant and the working group to have sufficient preliminary discussions on an item-by-item basis for confirming the timing of launch and method of implementing the work to be covered by each of the two governments during the period of the detail design, in order to ensure that each area of construction work will be carried out smoothly.

Among the scope of the work to be covered by the Egyptian side, the preparatory work including removal of existing buildings within the site must be carried out on schedule by the Egyptian side prior to the start of construction work for the facilities. It is also necessary to make sufficient studies on the period required from placement of order to on-site installation of materials and equipment procured from Japan, and how the timing fits in with the construction period for locally procured ones, so that an efficient schedule unspoiled by delays or waiting time can be established.

(5) Necessity of dispatching Engineers

In relation to the equipment work outlined above, it is necessary for the manufacturers of the procured equipment to dispatch their engineers to Egypt for installing the equipment and explanation of the manuals.

4-4-3 Construction/Supervision Plan

Based on the policies of the government of Japan for carrying out the provision of grant aid, and with due consideration to the aim of the basic design, the consultant will organize a comprehensive work team for conducting the detail design and construction supervision stage of the Project. This will ensure a smooth implementation of related work. In the construction supervision stage, the consultant will dispatch an on-site supervisor with adequate technical expertise for instruction and communication on the construction work. Staffers in charge of design shall also be dispatched for short periods as the occasion demands for inspections and supervision of construction.

(1) Main Policies for Supervision

- Close communication shall be maintained, with and frequent reports shall be made to, the related organizations of Egypt and Japan as well as with to the

persons in charge, so that the facilities can be completed on schedule without delay.

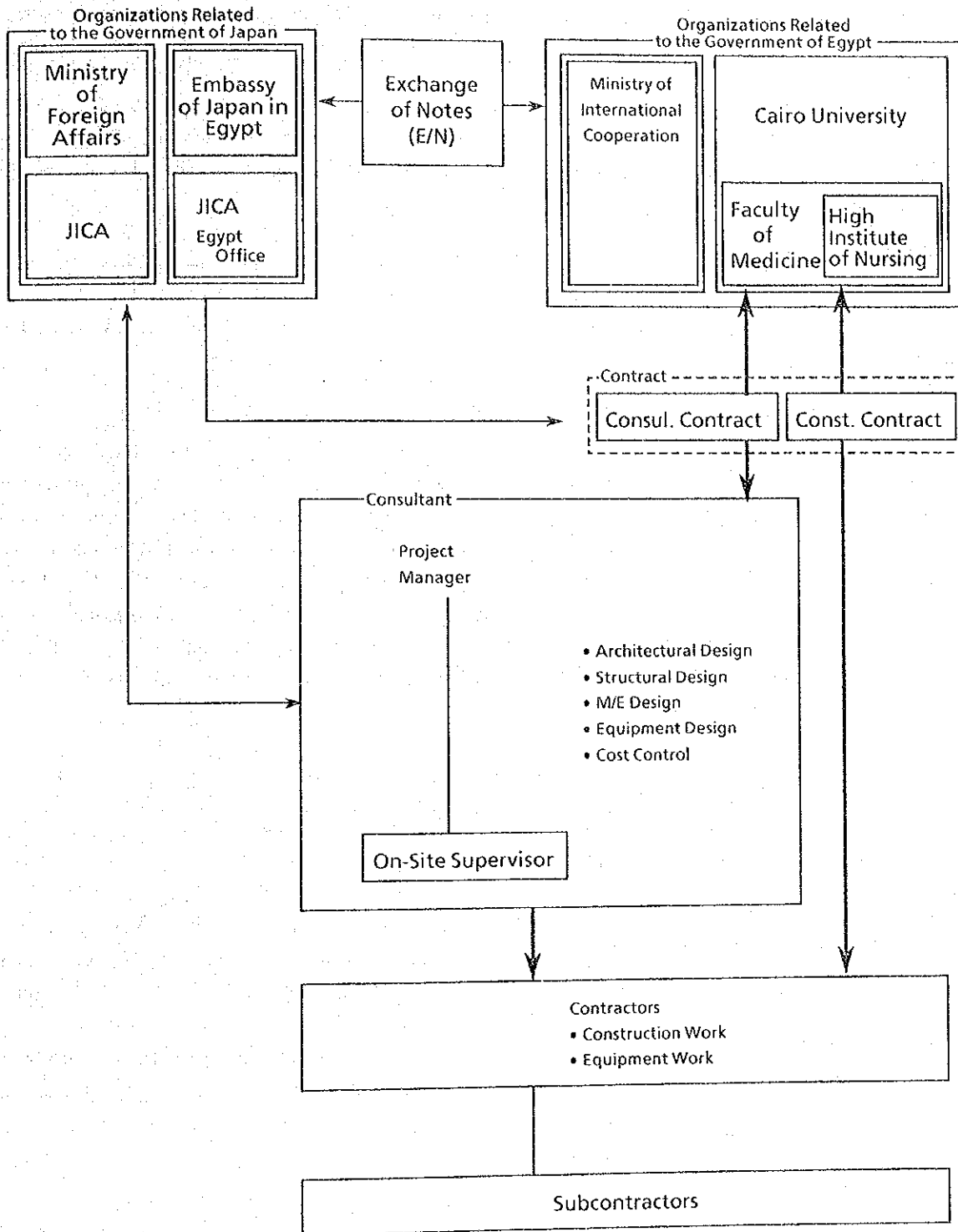
- Speedy and appropriate advice shall be provided to the construction company to make sure that facilities conforming to the design documents will be constructed.
- Locally procured materials and equipment and locally practiced construction methods shall be adopted wherever possible.
- A technical transfer approach shall be adopted for the methods and technologies for the Project, in order to maximize the effects of the grant aid.
- Adequate advice and guidance shall be provided for maintenance of the facilities to promote their smooth operations after they have been completed and handed over to the Egyptian side.

(2) Contents of Consultant's Supervisory Service

- Assistance on construction contract work

To undertake selection of the contractor, determination of the style of the construction contract, preparation of the agreement for the construction contract, verification of the contents of the item-by-item of the construction work, and witnessing of the conclusion of the construction contract.

Fig. 4-4-3 System of Supervision of the Construction



- Inspection and confirmation of construction drawings, etc.
To conduct inspections, etc., of the construction drawings, materials, finish samples and utility equipment submitted by the undertaker of the construction work.
- Guidance on the construction work
To inspect the plans and processes for the construction work, provide guidance to the undertaker of the construction work and report on the progress of the work to the Client.
- Assistance on the certificate for interim payment
To verify the contents of invoices, etc., related to the construction fee to be paid during, and after the completion of, construction work, and to assist in the procedural work.
- Presence at inspections
To carry out inspections in specific stages and areas of the construction work as required and provide instructions to the contractors through the period of the work. Upon confirming that the construction work has been completed and the terms of the contract have been duly carried out, the Consultant witnesses the handing over of the facilities of the Contract, receives the approval of the Client, and completes its mission. The Consultant is also required to report on the progress of construction work, and provide the related parties in Japan with relevant information on the payment procedures and handing over of the facilities.

These points have been taken in to account in the system of construction supervision and related organizations demonstrated in Fig. 4-4-3.

(3) Construction Supervisor

The ability to smoothly implement joint work with local construction companies in Egypt and the ability to provide adequate technological consultations with local companies in Egypt are required for the construction of facilities in conformity with the design documents and within the time schedule.

Judging from the scale and contents of the facilities of this Project, the number and functions of on-site construction supervisors that need to be stationed there are as follows.

- Facilities

Head supervisor	:	1	Overall management
Architectural supervisor	:	1	Architectural supervision process management
Architectural/construction drawings supervisor	:	2	Construction management and supervision of production of drawings

- M/E supervisor : 3 Supervision on M/E work
- Administration supervisor : 2 Management of imported materials and equipment, labor and administrative management
- Equipment supervisor : 1 Construction equipment

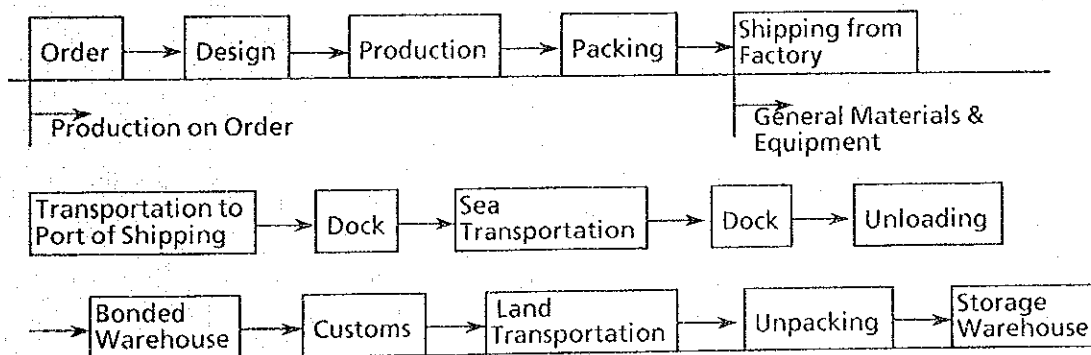
4-4-4 Materials & Equipment Procurement Plan

(1) Construction Work

The following points shall be taken into account in procuring the materials and equipment to be used for the facilities of the Project.

1) Materials & Equipment Procured from Japan

Among the required construction equipment, those to be procured from Japan and produced on order will undergo the procedures shown below. These materials take more time for production compared with regular materials that go through the simple process of order → design (approval) → production → packing → shipping. As a result, the timing of the orders for such equipment should be coordinated with the progress of the work.



There is also the risk of taking an unexpectedly long time in unloading and customs clearance at the local port. Consequently, close communications with the executing organization of the Project should be maintained to ensure that these procedures will be carried out smoothly.

2) Locally Procured Materials & Equipment

The ratio of locally procured materials and equipment shall be increased to facilitate acquisition of materials and equipment and maintenance of the facilities, and also to ensure speedy repairs in case the equipment are damaged. However, equipment which Egypt is judged unable to supply will be procured from Japan.

3) Costs

As a rule, the costs of locally procured materials and equipment and those procured from Japan shall be compared and the more inexpensive ones selected. When the difference is minimal, locally procured materials and equipment that are easy to manage and maintain shall be selected, after their performance is evaluated. Materials and equipment procured from Japan will be tax free but will require additional charges for packing, transportation and insurance coverage.

With consideration on the items given above, the procurement plan for materials and equipment to be used in the facilities has been drawn up as follows:

Table 4-4-4 Where Major Materials and Equipment will be Procured

Type of Work	Country to be Procured From	
	Egypt	Japan
Architectural	Aggregate, Cement, Reinforcing Bar, Asphalt Waterproofing Material, Cement Tile, Terrazo Block, Carpet, Wood for Temporary Work, Brick, Exterior Spray Material, Wooden Furniture, Steel Material for Temporary Work, Ceiling Materials, Paint, Glass	Steel Furniture, Metal Fittings, Signboards, Interior Finish Materials, Access, Aluminum Sash
Electrical	Transformer, Lighting Apparatus	Devices for Auditorium Illuminating Apparatus
Air Conditioning	Split-Type Air Conditioner, Pipe Material, Duct Material, Ventilating Fan	Large Air Conditioning Package Air Conditioning Unit, Humidifier Piping Duct, Ventilating Fan
Sanitary	Sanitary Fixtures, Piping Material, Water Tank, Water Boiler	Special Faucets Piping Material, Water Tank, Boiler
Vertical Transportation	Elevator	
Nursing Education Equipment		Educational Equipment

4-4-5 Schedule for Implementation

The expected work schedule in the event that the Project is to be implemented is given on the following page. No official document exchanged between its government and those of other nations can be issued in Egypt unless it is ratified by the People's Assembly. The fact that the People's Assembly is held only in November through June each year can greatly affect the schedule.

Approval by the State Council is also required when a consultant agreement and a construction agreement are concluded. A period of about 2 months longer than with other nations is required for this procedure. This factor also makes the schedule a very tight one.

In the event that the Project for the High Institute of Nursing is to be implemented under the grant aid of the government of Japan, the construction of facilities and provision of equipment will be conducted in the following three stages after the Exchange of Notes (E/N) between the two nations: preparation of detail design documents, tendering and contract for construction, and the actual construction work.

(1) Detail Design Stage

Tendering documents based on the basic design will be drawn up. The documents will consist of detail design drawings, specifications, estimated costs and budget plans. Thorough consultation with the related organizations in Egypt will be carried out in the initial, intermediate and final stages of the detail design, and tendering activities will be launched only after approval have been received on the final product.

The expected period required for this stage is 4 months.

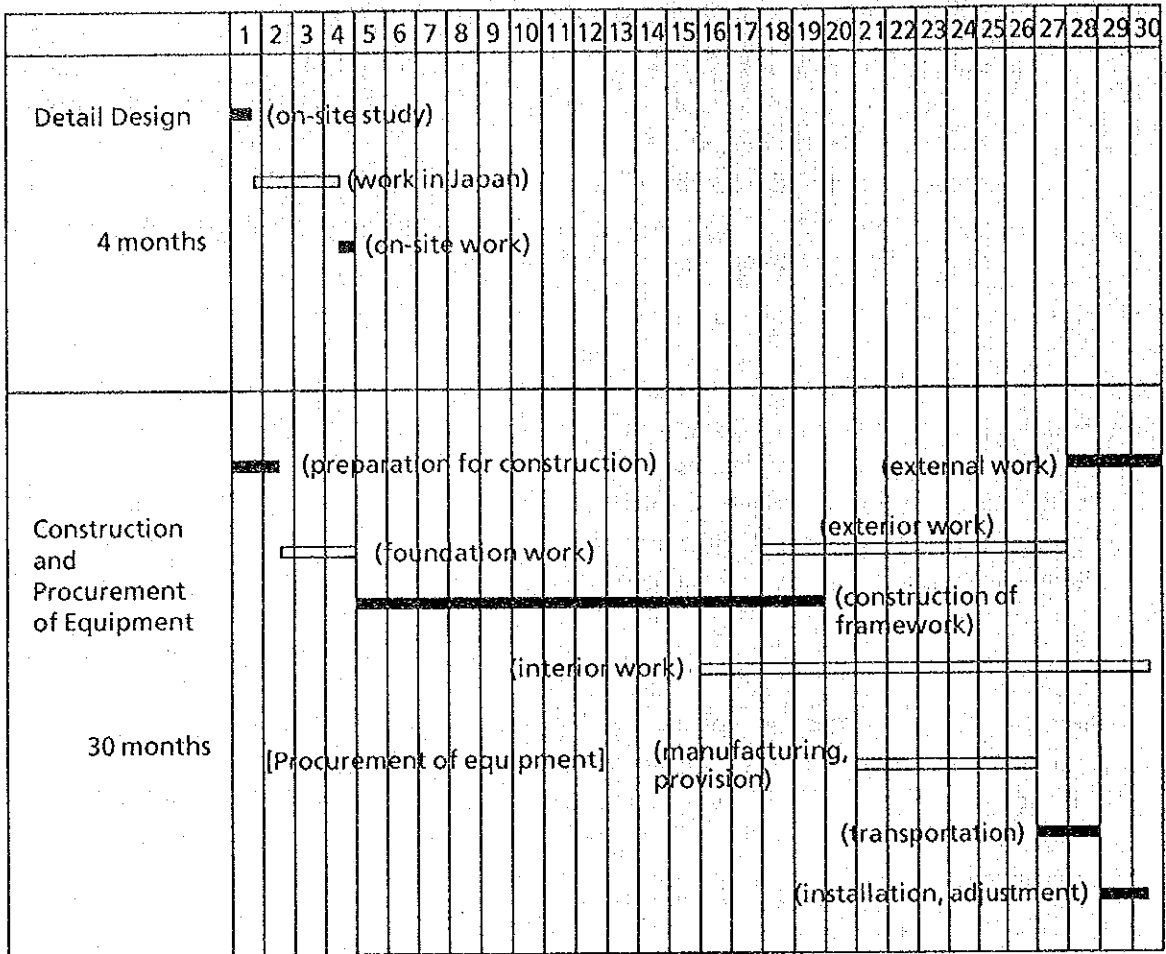
(2) Tendering Stage

The tendering stage will start with the public announcement in Japan for pre-qualification (P/Q) for participation in the tendering for the construction work, after the completion of the detail design. Based on the results of the pre-qualification, the executive organization will invite the companies participating in the tendering, and the tendering will be conducted in the presence of related parties. When the tenderer who has submitted the lowest bid is judged to have submitted an adequate and qualified bid, he will be named the successful tenderer. The contract for construction work will be made between the government of Egypt and the successful tenderer, and the contract will be approved by the State Council. The expected period required from tendering to the contract for the construction work is 3 months.

(3) Construction work for Facilities and Provision of Equipment

After the contract for the construction work and provision of equipment has been signed by the parties concerned, the construction work will start with the approval of the government of Japan. Judging from the scale and contents of the facilities for the Project, the period required for construction work for the Project is expected to be 30 months, on the understanding that the procurement of the construction materials, as well as the preparatory work assigned to the Egyptian side, will be carried out smoothly and on schedule.

(4) Overall Schedule for the Project



4-4-6 Scope of Work

(1) Scope of Work

Regarding the scope of the respective work to be covered by the governments of Japan and Egypt for the Project, the undertakings deemed adequate for each government are listed below.

1) Scope of Work by the Government of Japan

Facility-related Work

- Facilities for the Educational Dept.
- Facilities for the Administration Dept.
- Facilities for the Common Dept.
- Student Dormitory
- Others

Equipment-related Work

- Equipment for nursing education

Infrastructure-related Work

- Water supply system (within the site)
- Power receiving/transforming system
- Telephone exchange system

External Work

- Roads within the site, Parking Lot
- Drainage system (within the site)
- Outdoor lamps

Related Procedural Work

- Import of materials and equipment from Japan to Egypt
- Domestic transportation of materials and equipment from the port of unloading to the construction site

2) Scope of Work by the Government of Egypt

- To carry out site preparation such as clearing, leveling and reclaiming the site prior to the commencement of the construction.
- To undertake incidental outdoor work such as providing parks, gardening, fencing gates and exterior lighting in and around the site.
- To provide facilities for the distribution of electricity, water supply, telephone line, drainage and other incidental facilities to the proposed site before the commencement of the Project.
- To provide general furniture such as carpets, curtains, tables, chairs and others.
- To bear the banking charge of the Japanese foreign exchange bank for its banking services based upon the Banking Arrangements in accordance with the Japanese Grant Aid system.
- To ensure prompt unloading, tax exemption, customs clearance at the port of disembarkation in Egypt and prompt internal transportation of equipment procured under Japanese grant aid.
- To accord Japanese nationals whose services may be required in connection with the supply of the products and their service under the verified contract such facilities as may be necessary for their entry into Egypt and stay therein for the performance of their work in accordance with the relevant laws and regulations of the Arab Republic of Egypt.
- To accord the Japanese nationals mentioned in item 7 under the Verified Contract entry into Egypt and a suitable stay therein for the performance of their work.
- To maintain and use properly and effectively the facilities constructed and equipment procured under Japanese grant aid.
- To bear all the expenses, other than those to be borne by Japanese grant aid, necessary for execution of the Project.
- To secure the budget and staffers necessary for operating and maintaining adequately and effectively the facilities constructed and equipment procured under the grant aid.

(2) Estimated Cost

The construction work for the facilities will consist both of work to be covered by the government of Japan and that to be covered by the government of Egypt. The

following is the estimated cost for the work to be covered by the Government of Egypt, calculated on the basis of the basic design given in Chapter 4:

1) Work to be Covered by the Government of Egypt

The estimated cost will amount to £E 4,205,000,
the breakdown of which is as follows:

a)	Preparation work	£E 925,000
	• Dismantling existing structures	
	• Dismantling foundations	
	• Cost for the project-related staff	
	• Bank commission	
	• Infrastructure improvement work	
b)	Furniture, External work	£E 3,280,000
	• Excavation of the site	
	• Parking area finishing work	
	• Furniture for the Administration Department	
	• Furniture for the Dormitory	
	• External work	
	• <u>Overhead work</u>	
	Total	£E 4,205,000

CHAPTER 5 PROJECT EVALUATION AND CONCLUSIONS

Chapter 5: Project Evaluation and Conclusion

- (1) It is expected that the improvement of the High Institute of Nursing which will be conducted under this Project will enhance the present situation of nurses in Egypt both qualitatively and quantitatively.

To be more specific, the following effects are anticipated:

1) Qualitative and Quantitative improvement of nurses

- ① The Project will directly help the quantitative improvement of the first-class nurses as expected by the Ministry of Health. Specifically, the Project will make it possible to supply 10% of the total number of the nurses proposed by the Ministry of Health for the years between 1990 and 2000.
- ② The increase in the number of university graduates will make possible to establish new junior colleges. In addition, specialization courses for the nurses graduated from senior high school (2nd class nurses) will enable them to receive continuing nursing training and will eventually improve the quality of nursing services.
- ③ A high level of nursing techniques will be provided to meet the demand for advanced medical services. Supply of University graduate nurses were limited and provided only to the large hospital as nursing director (top class management). This plan will enable the supply of nurses to middle-class management and in service education in hospitals, and will help strengthen the leadership in nursing services.
- ④ Preventive health care activities will be strengthened through the health centers and health units which are systematically located throughout the country to provide health care and guidance in a positive manner.
- ⑤ A nursing model which is closely related to the cultures of Arab and African nations will be developed through nursing research (assessment, planning, implementation, and evaluation) to meet the needs of these nations.
- ⑥ Reinforcement of nursing education in Egypt as well as in neighboring nations.

The High Institute of Nursing of Cairo University will represent the highest standard of nursing education facility not only in Egypt but also among its neighboring nations. Hence, the education provided here will serve as a model for similar institutions and will help upgrade the level of

other facilities. Exchange of information at academic meetings and acceptance of students from abroad will further advance these benefits.

As listed above, a wide range of favorable effects can be expected from this Project for improvement of the High Institute of Nursing. In order to implement this Project, however, the Egyptian side requires the transfer of technologies and experience from advanced countries and is therefore requesting project-based technical cooperation to accompany the grant aid. Execution of this project-type technical cooperation will enable the facilities and equipment constructed and procured by the grant aid to be utilized adequately and effectively. This is expected to trigger further favorable effects.

(2) Adequacy of the Project

The Japanese side discussed the details of the Egyptian request with the relevant committees of Cairo University, conducted on-site surveys and analyzed the results after returning to Japan, in order to draw up the outline of the Project. The feasibility of the Project was evaluated. The results showed that the Project can be implemented smoothly without posing any problems in terms of finance, maintenance or management, as confirmed below.

1) Finance

A budget of EE 5,000,000 has already been appropriated in the 2nd 5-Year National Program for covering the improvement work on the High Institute of Nursing of Cairo University. The total cost of the work to be covered by the Egyptian side is EE 4,205,000, which means that the budget is sufficient. Preparation of the site is already in progress, and no problems have arisen so far regarding the work of the Egyptian side. The Egyptian side has also promised a reassessment of their plan for an operational budget. As long as this commitment is duly carried out, no problems are envisaged.

2) Maintenance and Management

The engineers and technicians currently responsible for the maintenance and management of the Faculty of Medicine will take charge of the maintenance and management of the facilities of the Project. The facilities and equipment for the Project are designed to facilitate maintenance and management: the facilities and equipment call for minimum maintenance, and spare parts difficult to obtain in Egypt are provided in sufficient amounts in the basic design for equipment. Many of the teaching staff at the High Institute of Nursing of Cairo University have expertise and experience in the equipment to be procured for the Project. Consequently, no major difficulty is expected in the maintenance and management.

3) Operation System

To cope with the increased student quota in the future, the High Institute of Nursing of Cairo University will employ more staffers and lecturers. The teaching staff will be of high quality, with many lecturers having doctorates. Hence, no major problem is envisaged in the operation system of the facilities after they have been completed and handed over to the Egyptian side.

(3) Conclusion

Provision of higher standards of health and medical care to the people is the target drawn up by the government of Egypt in its 2nd 5 year Socioeconomic Development Program. The government, which has also drawn up medium-range goals for preventive medicine, medical care, basic medical areas and pharmaceuticals, regards efficient health care, provision of pharmaceutical products, control of endemic diseases, construction of health care facilities and training of health care and medical personnel as priority items.

Reinforcement of the nursing work force, both in quality and quantity, is indispensable for achieving these goals. In particular, higher education for nursing is considered an urgent and vital issue as a means of attaining this target. The execution of this improvement project is anticipated to have a substantial and far-reaching influence on upgrading of the the educational environment in the High Institute of Nursing of Cairo University and fostering of excellent human resources. Also, because of the large number of students from neighboring countries accepted at Egyptian universities, the High Institute of Nursing of Cairo University is certain to play a pivotal role in upgrading of the nursing education of other Middle East nations and African nations as well.

As outlined above, the Project is expected to contribute to the improvement of the nursing situation in Egypt both qualitatively and quantitatively, and it is quite appropriate that the Project be implemented through grant aid. No problems are envisaged on the system of the Egyptian side, which has sufficient personnel and funds to operate and manage the Project. However, the following improvements are suggested for an even smoother and more effective implementation of the Project.

(4) Suggestions

1) Suggestions on the Management Program

To prepare for the sharp increase in the number of the students admitted to the university, it is necessary to take thorough measures to maintain and to improve quality of education.

① Assurance of teaching staff

It is recommended that professors and professor-class senior teachers for each main subjects in the fields of nursing be assured. It is also recommended that opportunities for improving teaching skill and

conducting their own research be given to junior teachers to prepare for promotion.

② Review of curriculum, teaching-learning methods

It is desired that health care needs be analyzed and the curriculum be reviewed from the point of view of cultivating humanism as well as professional competency to carry out the tasks required for the nurse today.

- To develop learning units which enhance effectiveness of nursing and other laboratory studies.
- To Develop simulation study materials.
- To Develop teaching materials for self learning (software)
- To Promote a learning method to utilize information.

③ Assurance and improvement of clinical practice fields and facilities

It is recommended to have enough numbers of facilities for providing various nursing experiences at curative, health and preventive settings and primary health care center.

In order to provide for the students desirable clinical experience, it is necessary to facilitate nursing equipment and materials including nursing standards, procedure manuals and nursing record be provided in these settings.

In addition, it is also recommended to improve nursing competency of clinical instructors.

④ Development of evaluation methods of the students

It is recommended that evaluation tool for the learning students according to the progress of their studies from theoretical and practical achievement, and integrated competency.

⑤ Evaluation of curricula

It is recommended that characteristics of the students at the end of their program be valued against their initial objectives and the results be fed back to a new curriculum.

It is recommended that the direction of the education at the university should be reviewed by the authorities in various sectors including people outside the university such as authorities from ministry of health, medical and allied health personnel and recipient of health care. The contents of the curriculum as well as the level of the competency of the graduates should be reviewed and future direction of the program to be identified.

2) Suggestions on Maintenance and Management

- For efficient operation of the facilities, engineers in charge of maintenance and management of the facilities and equipment to be provided by

the Egyptian side should be assigned at the time of installation of the equipment so that they will become familiar with the features and functions of the equipment prior to the handing over.

3) Tasks and work to be covered by the Egyptian side

- Such tasks as tendering, contracts, arrangements with banks and customs procedures should be conducted quickly for the smooth implementation of the Project.
- The disassembling and excavation work within the site which are currently under way by the Egyptian side should be completed as scheduled prior to the start of the construction work of the Japanese side.
The purchase of the plants, furniture and fixtures should also be completed before the construction of the facilities has been completed.
- Regarding the extension of the Student Dormitory to be conducted by the Egyptian side over the Dormitory to be constructed by the Japanese side under this Project, thorough discussions will be needed to clarify the budgetary measures for the proposed extension of the dormitory and to establish a more concrete plan.

4) Operating Budget

Appropriate budgetary considerations are vital to the Project, because the educational and research activities of the target institute are to be carried out under the national budget of Egypt.

{ APPENDICES }

- 1. Basic Design Study Team Members**
- 2. Itinerary**
- 3. Authorities Concerend**
- 4. Minutes**
- 5. Construction Site**
- 6. Equipment List**
- 7. Others**

1. Basic Design Study Team Members

1-1 Basic Design Study Team (1989. Dec. 8 ~ Dec. 29)

Team Leader	Prof. Junko Kondo	St. Luke's College of Nursing
Nursing Education	Ms. Kyoko Tateyama	Ex-JICA Expert
Nursing Administration	Ms. Miyako Mishima	Hospital Management Research Center, Ministry of Health and Welfare
Coordinator	Mr. Yoshikatsu Nakamura	Grant Aid Planning & Survey Dept., JICA
Arch. Planner	Mr. Shozo Baba	Nikken Sekkei
Architect	Mr. Tsutomu Iwamoto	Nikken Sekkei
Electrical Engineer	Mr. Tetsuro Yukutake	Nikken Sekkei
Equipment Specialist	Mr. Akira Sato	ITEC

1-2 Draft Final Report Explanation Team (1990 Apr. 5 ~ Apr. 15)

Team Leader	Mr. Yutaka Hosono	Grant Aid Study and Design Dept., JICA
Nursing Education	Prof. Junko Kondo	St. Luke's College of Nursing
Arch. Planner	Mr. Shozo Baba	Nikken Sekkei
Architect	Mr. Tsutomu Iwamoto	Nikken Sekkei
Equipment Specialist	Mr. Akira Sato	ITEC

2. Itinerary

2-1 Basic Design Study (1989. Dec. 8 ~ Dec. 29)

Day	Date	Itinerary
1	8 Dec. (Fri)	Nakamura, Mishima, Baba, Iwamoto, Yukutake, Sato leave from Tokyo
2	9 Dec. (Sat)	Above persons arrive at Cairo
3	10 Dec. (Sun)	Japanese Embassy, JICA, MOIC Meeting, HIN Meeting
4	11 Dec. (Mon)	Site Survey, Visit to Faculty of Medicine, Tateyama arrives at Cairo.
5	12 Dec. (Tue)	Meeting with HIN, Move to Alexandria.
6	13 Dec. (Wed)	Visit to HIN Alexandria Univ. Kondo arrives at Cairo.
7	14 Dec. (Thu)	Visit to President of Cairo Univ. Visit to Pediatric Hospital.
8	15 Dec. (Fri)	Internal Meeting
9	16 Dec. (Sat)	Committee Meeting, Visit to Cancer Institute
10	17 Dec. (Sun)	Committee Meeting, Explanation of Inception Report, Visit to Prime Minister
11	18 Dec. (Mon)	Committee Meeting, Confirmation of the request
12	19 Dec. (Tue)	Committee Meeting, Discussion of the Minutes
13	20 Dec. (Wed)	Sign on the Minutes, Report to the Embassy, MOIC
14	21 Dec. (Thu)	Meeting with HIN on the facility, Tateyama, Mishima, Nakamura leave from Cairo
15	22 Dec. (Fri)	Internal Meeting
16	23 Dec. (Sat)	Meeting on facility and equipment plan
17	24 Dec. (Sun)	Kondo leaves from Cairo Visit to Computer Center, Gym, LL classrooms, Cairo Univ. Auditorium. Discussion of the facility.
18	25 Dec. (Mon)	Discussion on the facility and equipment plan
19	26 Dec. (Tue)	Discussion on the facility and equipment plan
20	27 Dec. (Wed)	Committee Meeting, Discussion on the Basic Design
21	28 Dec. (Thu)	Report to Japanese Embassy, JICA, Baba, Iwamoto, Yukutake, Sato leave from Cairo
22	29 Dec. (Fri)	Arrive at Tokyo.

MOIC: Ministry of International Cooperation, Egypt

2-2 Draft Final Report Explanation (1990. April 5 ~ April 15)

Day	Date	Itinerary
1	5 Apr. (Thu)	Leave from Tokyo
2	6 Apr. (Fri)	Arrive at Cairo
3	7 Apr. (Sat)	Meeting at JICA
4	8 Apr (Sun)	Meeting at Japanese Embassy, MOIC, HIN
5	9 Apr. (Mon)	Visit to President of the Cairo University
6	10 Apr. (Tue)	Technical Meeting, Meeting with Committee on the Minutes
7	11 Apr. (Wed)	Kondo Leaves from Cairo Sign on the Minutes. Meeting with MOIC
8	12 Apr. (Thu)	Report to Japanese Embassy, JICA
9	13 Apr. (Fri)	Leave from Cairo
10	14 Apr. (Sat)	Moving day
11	15 Apr (Sun)	Arrive at Tokyo

3. Authorities Concerned.

Egyptian Authorities Concerned

(1) Cairo University

Prof. Dr. Maamoun Salama	President of Cairo University
Prof. Dr. Abu El Wafaa El Taftazani	Vice President for Graduate Study
Prof. Dr. A. H. Harhash	Vice President of Benisuev Univ.
Prof. Dr. Khairy Samra	Dean of Faculty of Medicine
Prof. Dr. Hashem Abdel Wahab Morro	Associate Dean Faculty of Medicine
Prof. Dr. Hossam El-Din Ahmed Mowafi	Director General of Cairo University
Prof. Dr. Ibrahim Mohamed Foyad	Professor of Pediatric
Prof. Dr. Cheherezade Ghazi	Director of High Institute of Nursing
Mr. Adel Hafez	Director General of Administration
Eng. Mohamed Ibrahim Hanafi	General Director of Eng. Dept.
Dr. Nawal Ebeid Hannei	Lecturer, High Institute of Nursing
Dr. Neemat M. Ali	Lecturer, High Institute of Nursing
Prof. Dr. Ahmed Baasiony	Professor of Medicine
Eng. Farouk Killini	Engineer
Arch. Ahmed Ramzy	Architect
Prof. Dr. A.Ebeid	Professor of Anesthesin
Prof. Dr. Hussein Kamel Baha El Din	General Director of CUPH
Prof. Mohamed El Adawy	Professor Dr. of Engineer
Eng. Hassan Sharawy	Assistant General Secretary of CU

(2) Dr. Atef Sidki

Prime Minister, Arab Republic of Egypt

(3) Alexandria University

Prof. Dr. Ferial	Director of High Institute of Nursing
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(4) Ministry of International Cooperation

Mr. Saad Mohamed Bayoumy	Undersecretary
Mr. Mohsem Mohamed Sadek	Economy Researcher

(5) Ministry of Public Health

Mrs. Zffat Kamel	Director, Nursing
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Japanese Authorities Concerned

(1) Japanese Embassy

Mr. Junzo Yamada, Minister

Mr. Yoshikazu Kaneko, Minister

Mr. Susumu Inoue, First Secretary

Mr. Toshiyuki Furui, First Secretary

(2) JICA Cairo Office

Mr. Keiji Imura, Resident Representative

Mr. Hiromasa Kawazoe, Deputy Resident Representative

Mr. Shigeru Okamoto, Assistant Resident Representative