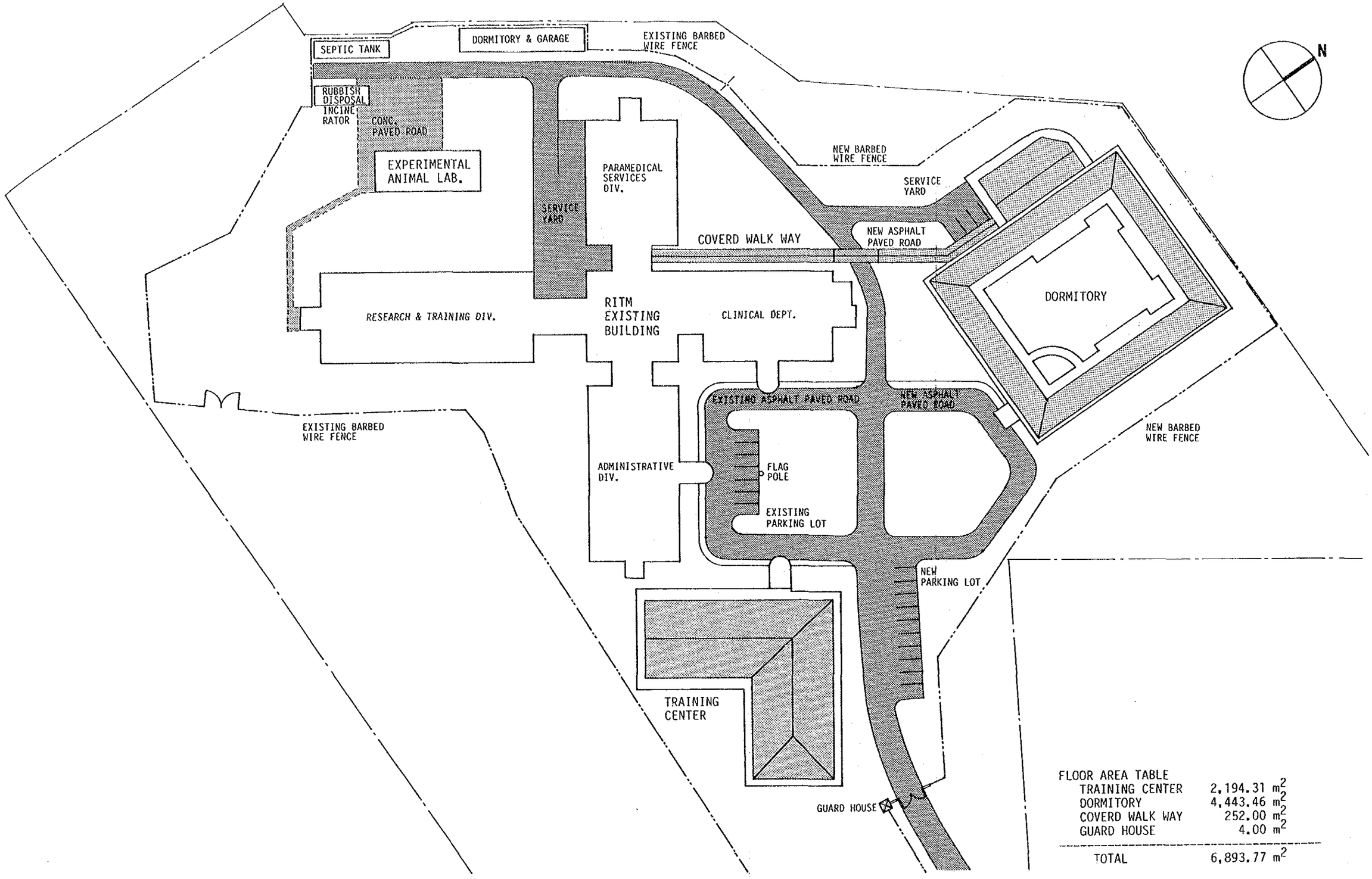
5-7 Basic Design Drawings

LIST OF BASIC DESIGN DRAWINGS

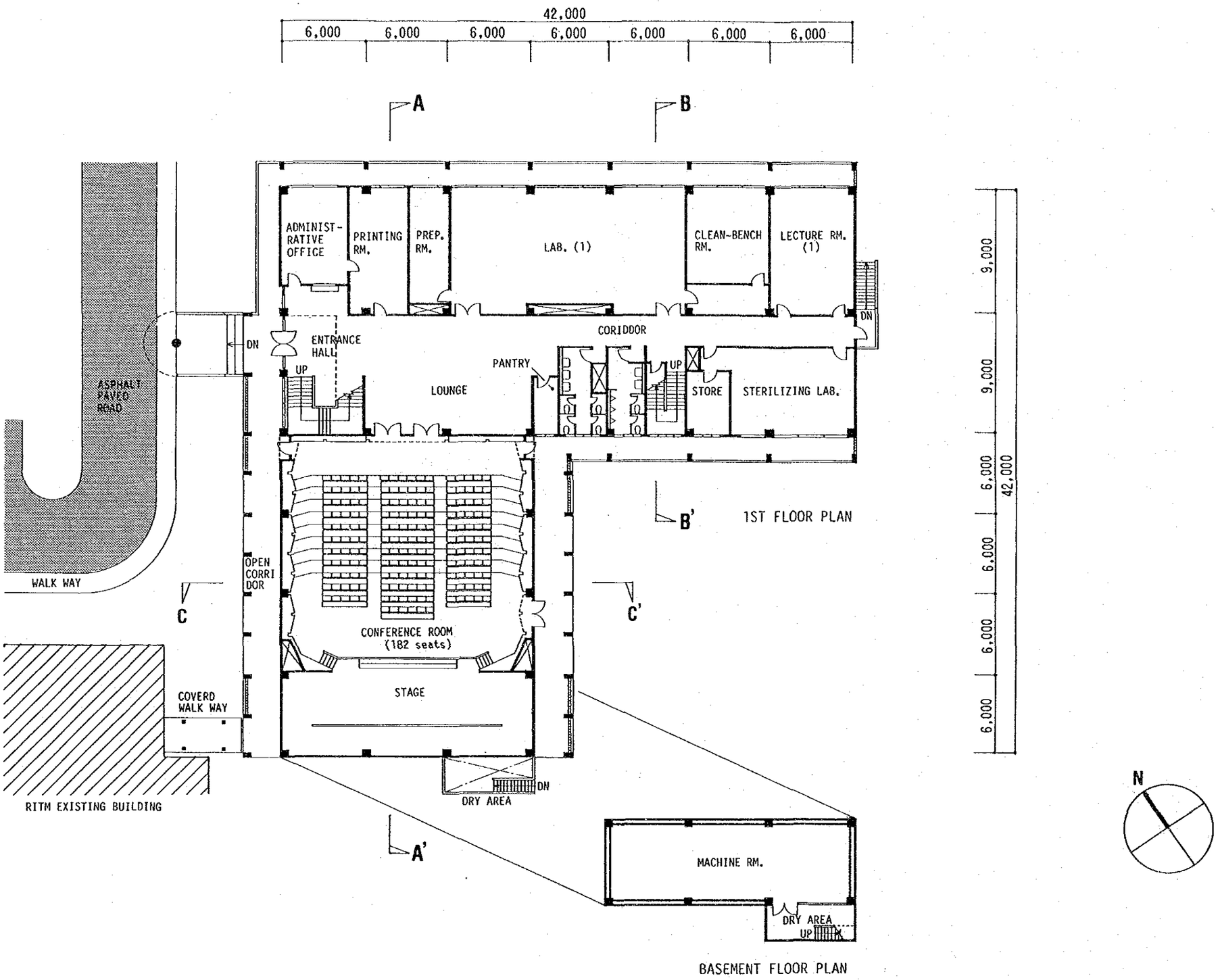
01 SITE PLAN
02 TRAINING CENTER BASEMENT FLOOR, FIRST FLOOR PLAN
03 TRAINING CENTER SECOND FLOOR PLAN
04 TRAINING CENTER ELEVATIONS
05 TRAINING CENTER ELEVATIONS
06 TRAINING CENTER SECTIONS
07 DORMITORY BASEMENT FLOOR, FIRST FLOOR PLAN
08 DORMITORY SECOND FLOOR PLAN
09 DORMITORY THIRD FLOOR PLAN
10 DORMITORY ELEVATIONS
11 DORMITORY ELEVATIONS
12 DORMITORY SECTIONS
13 RITM EXISTING BUILDING RENOVATION PLAN NO. 1
14 RITM EXISTING BUILDING RENOVATION PLAN NO. 2
15 RITM EXISTING BUILDING RENOVATION PLAN NO. 3
16 RITM EXISTING BUILDING RENOVATION PLAN NO. 4



FLOOR AREA TABLE

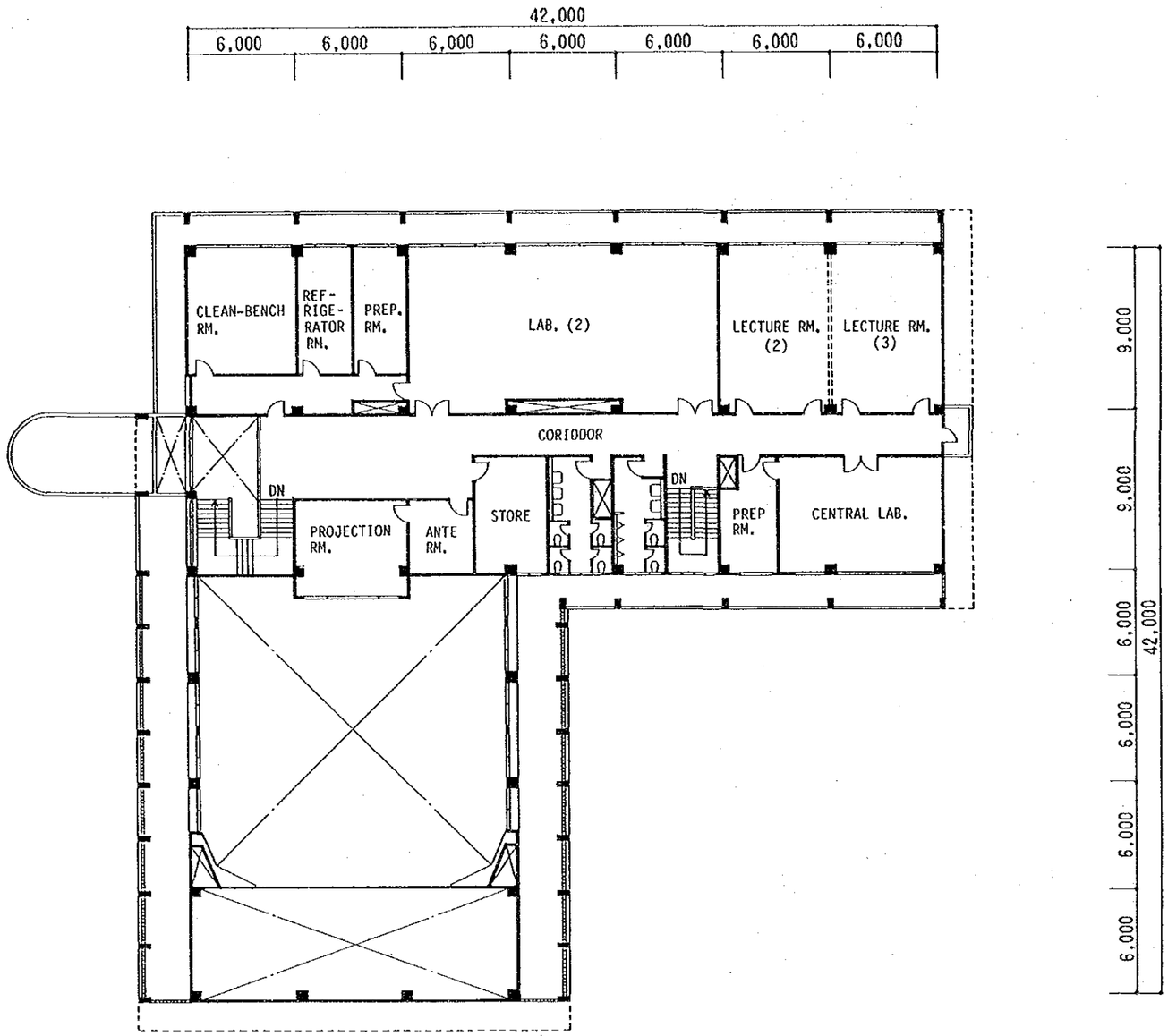
TRAINING CENTER	2,194.31 m^2
DORMITORY	4,443.46 m^2
COVERD WALK WAY	252.00 m^2
GUARD HOUSE	4.00 m^2
TOTAL	6,893.77 m^2

SITE PLAN S 1:800 **01**



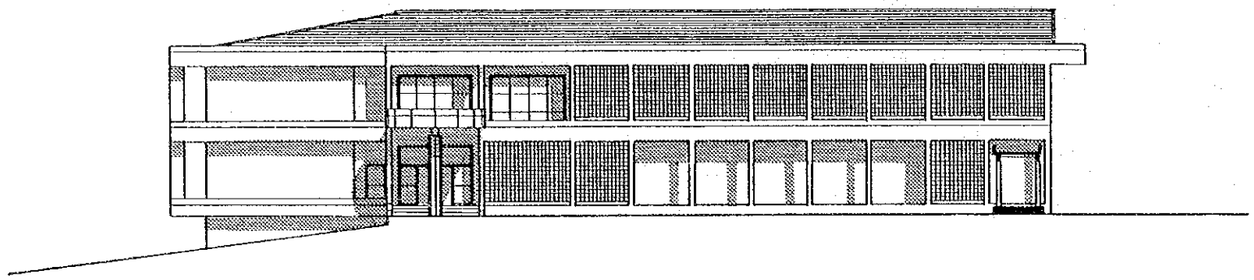
TRAINING CENTER BASEMENT FLOOR · 1ST FLOOR PLAN S 1:300

02

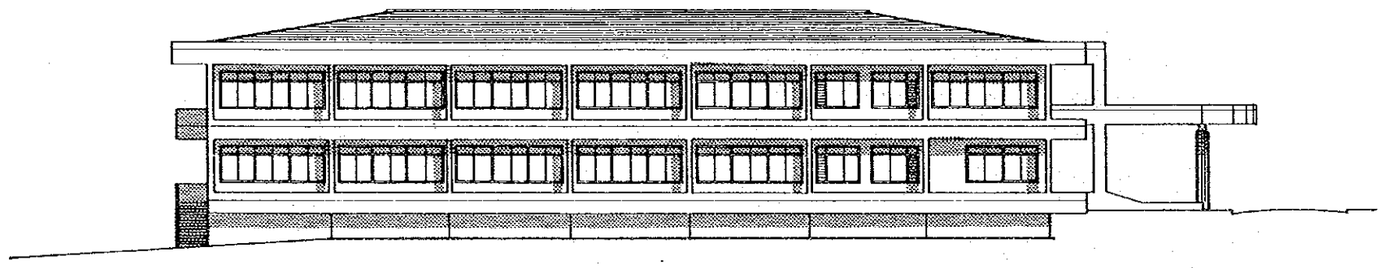


TRAINING CENTER 2ND FLOOR PLAN S 1:300

03



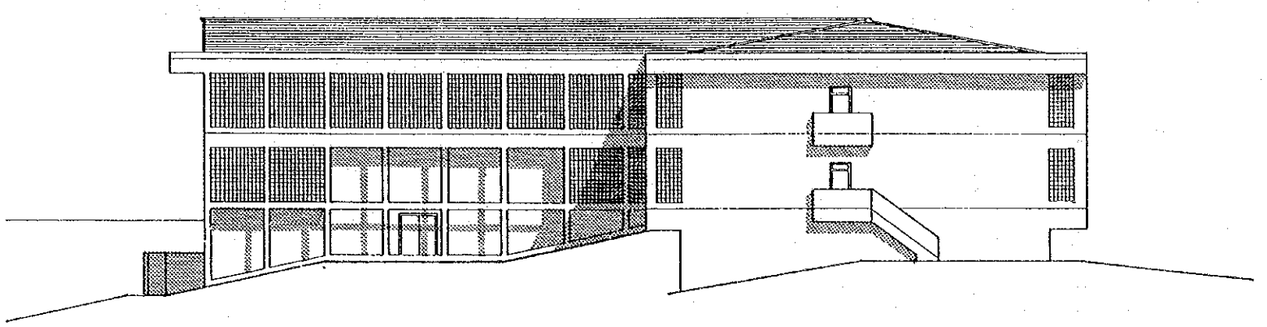
NORTH ELEVATION



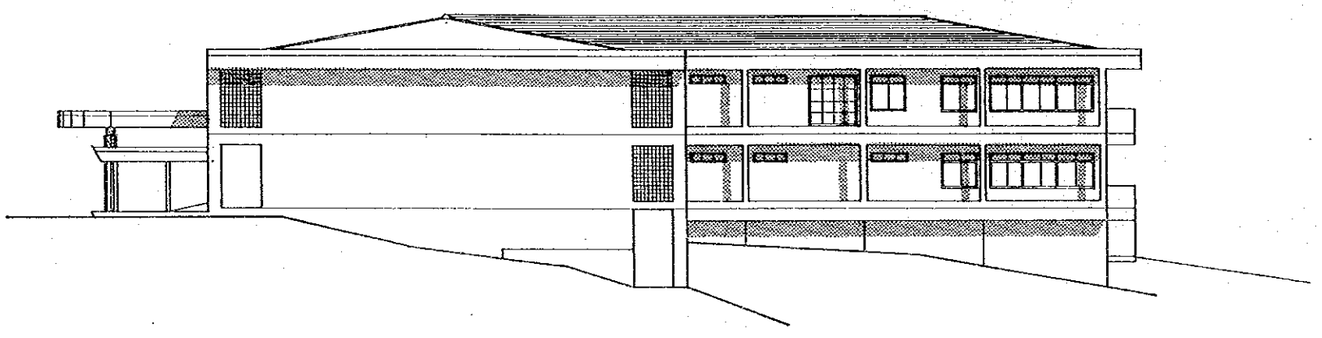
EAST ELEVATION

TRAINING CENTER ELEVATIONS S 1:300

04

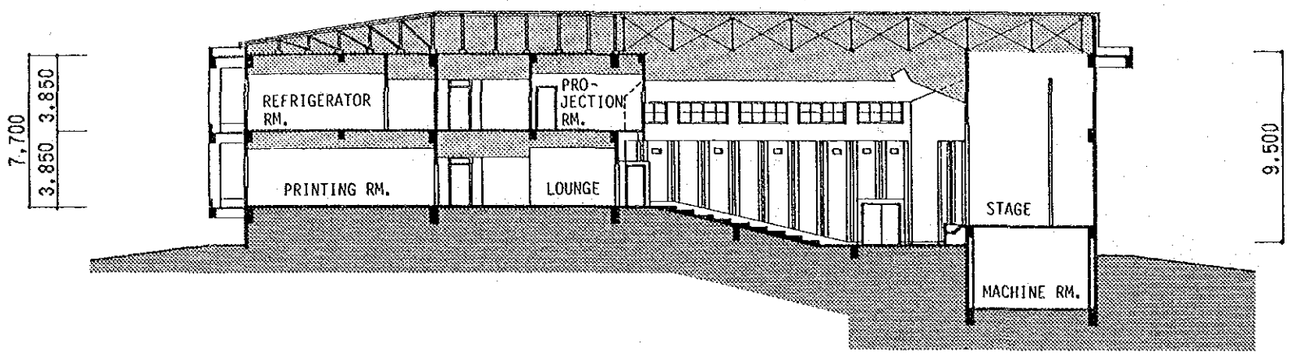


SOUTH ELEVATION

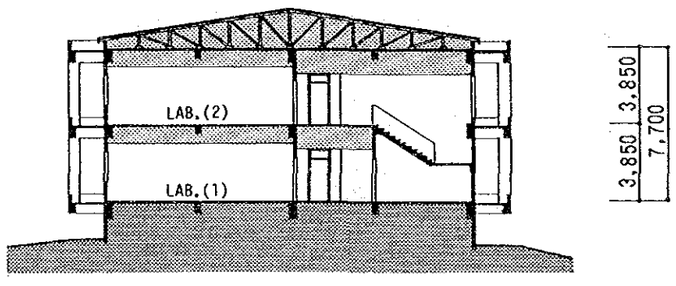


WEST ELEVATION

TRAINING CENTER ELEVATIONS S 1:300 **05**



A - A' SECTION



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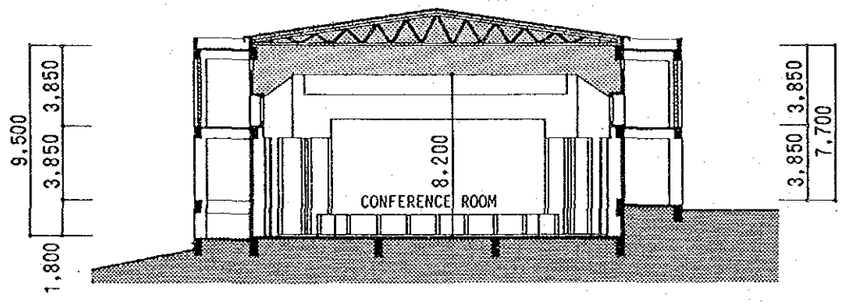
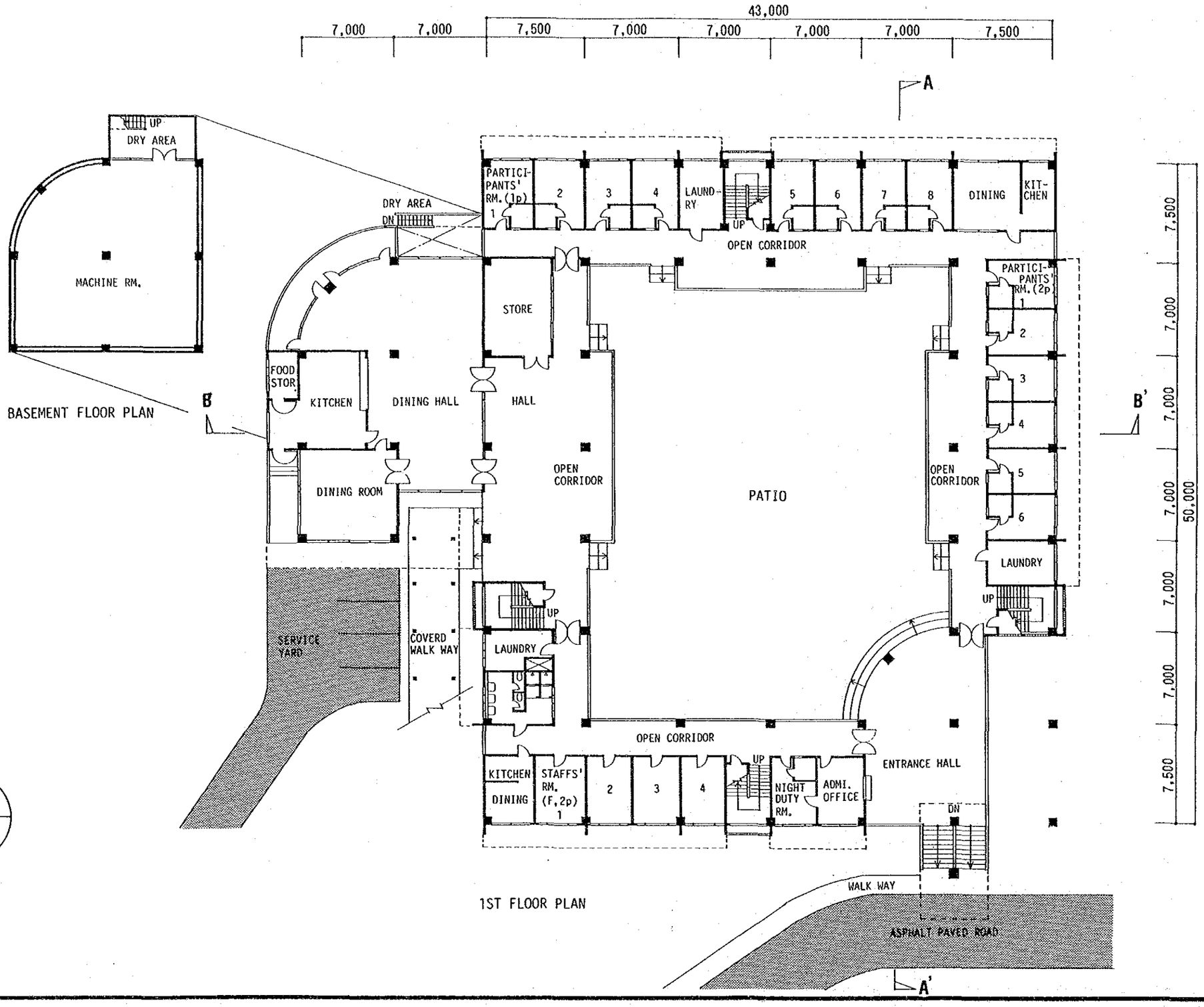


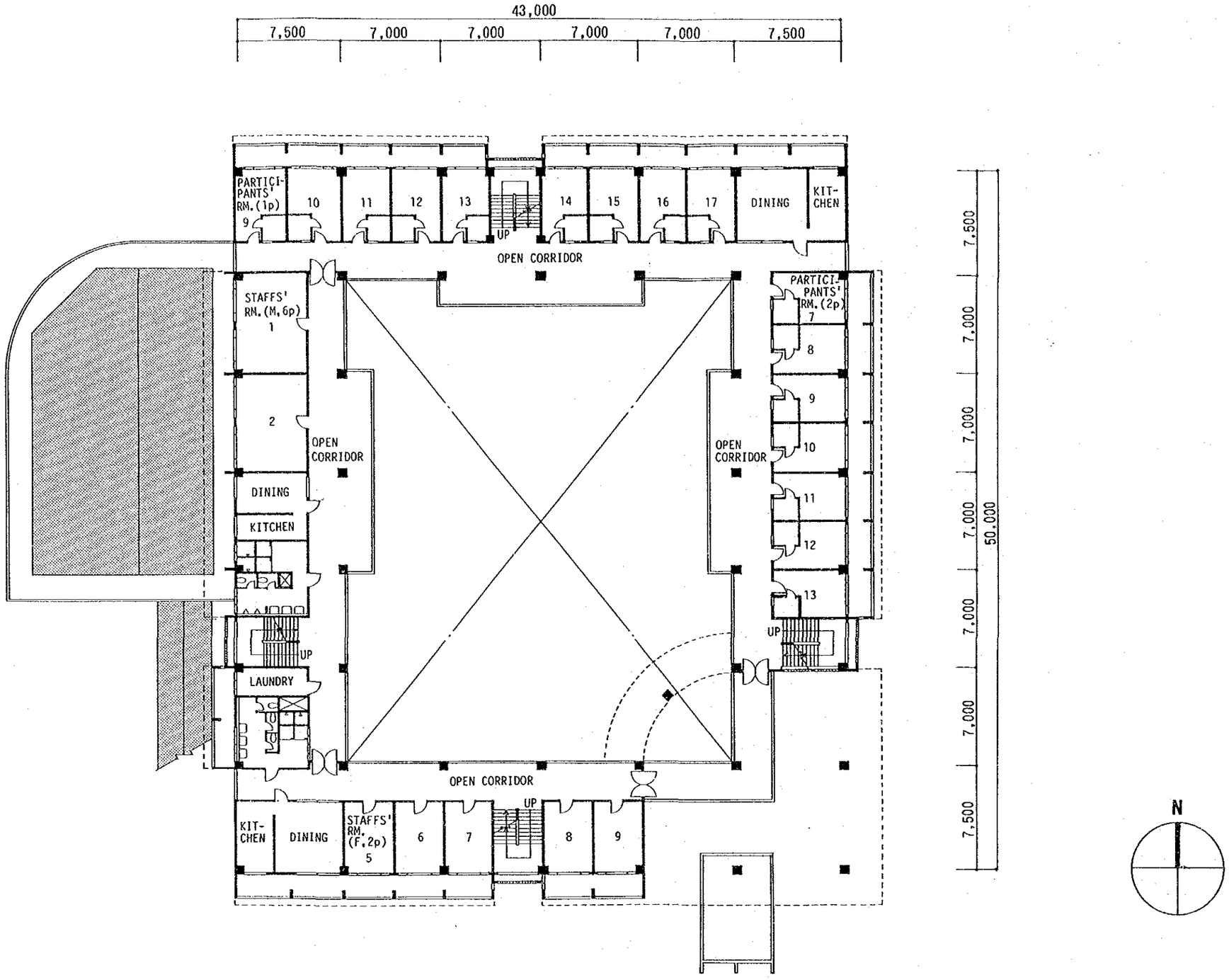
C - C' SECTION

TRAINING CENTER SECTIONS S 1:300 **06**

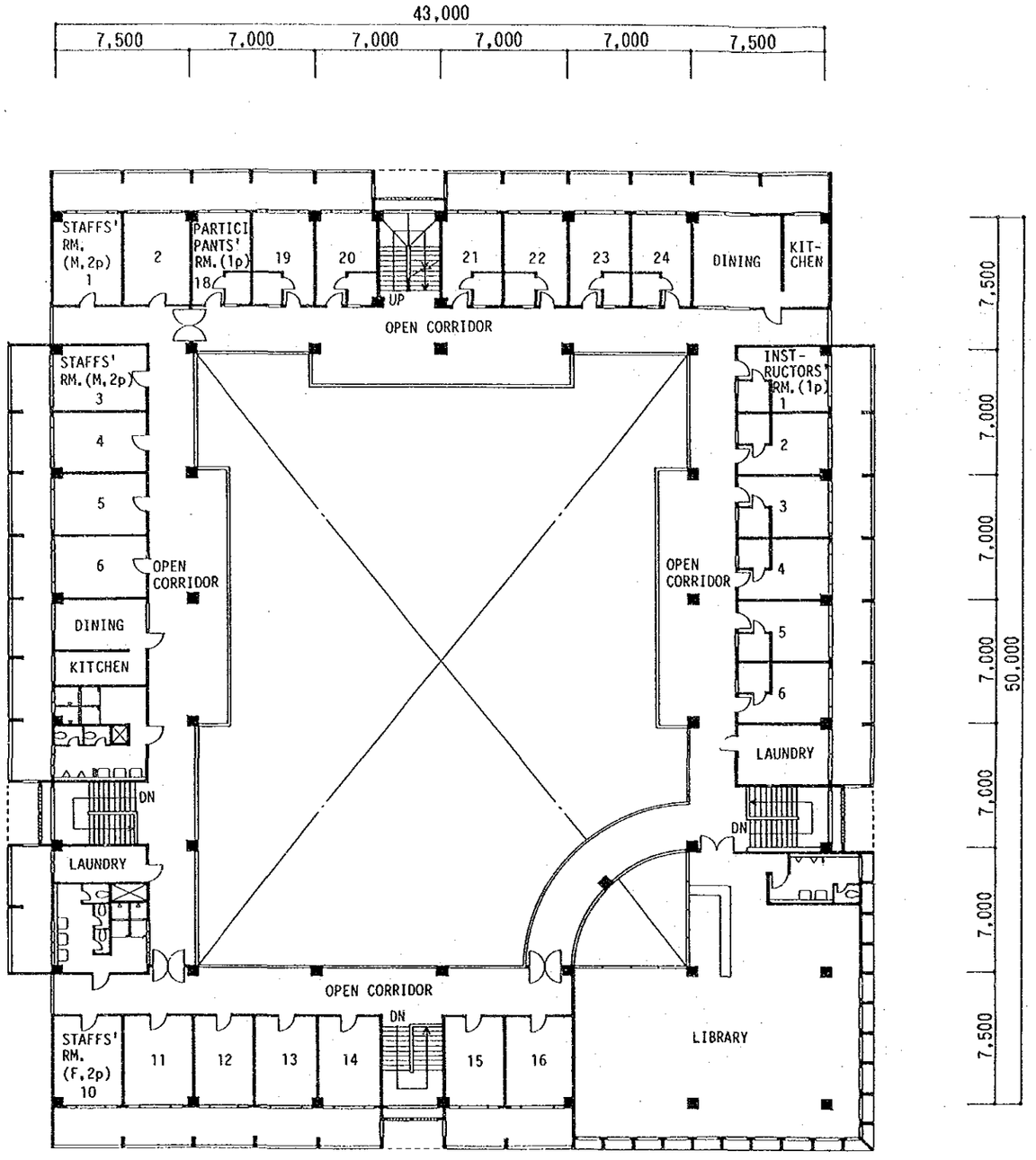


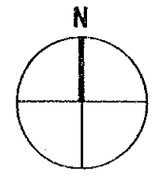
DORMITORY BASEMENT FLOOR · 1ST FLOOR PLAN S 1:300

07

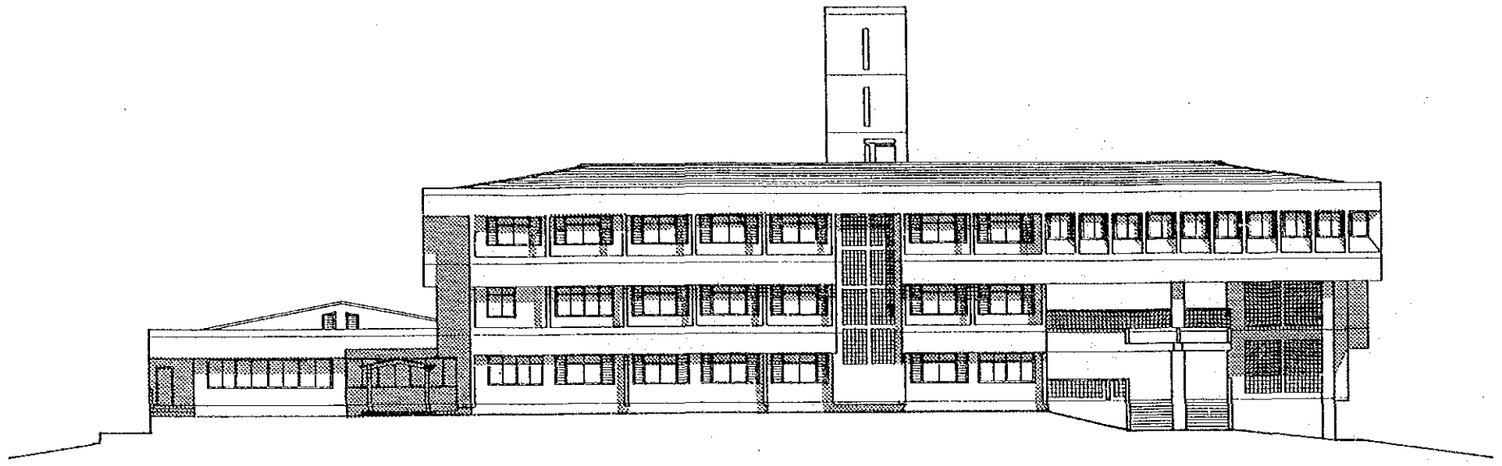


DORMITORY 2ND FLOOR PLAN S 1:300 **08**

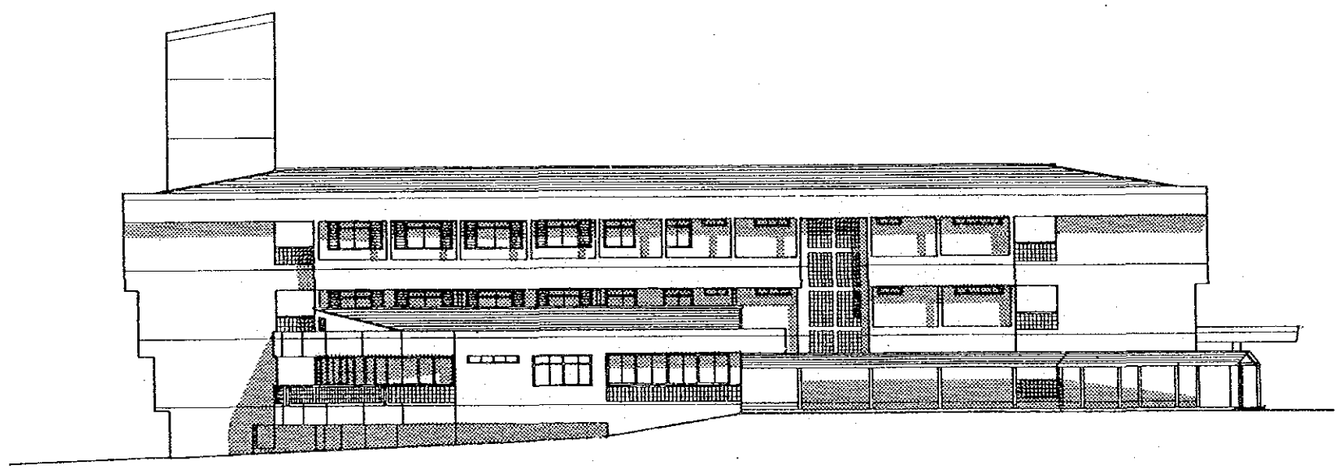




DORMITORY 3RD FLOOR PLAN S 1:300 **09**

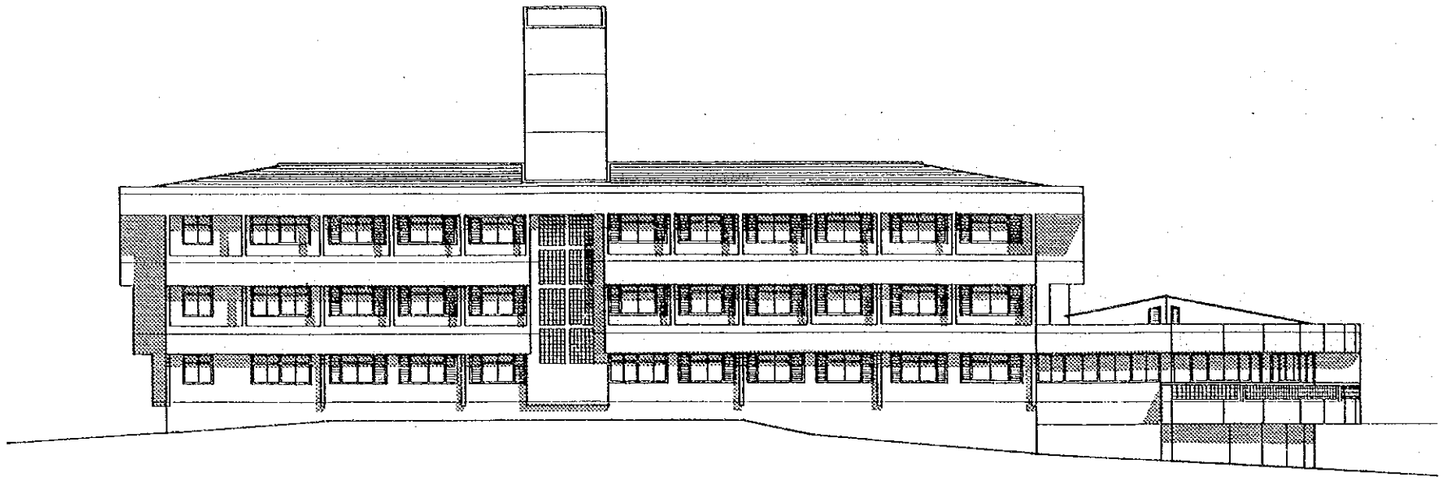


SOUTH ELEVATION

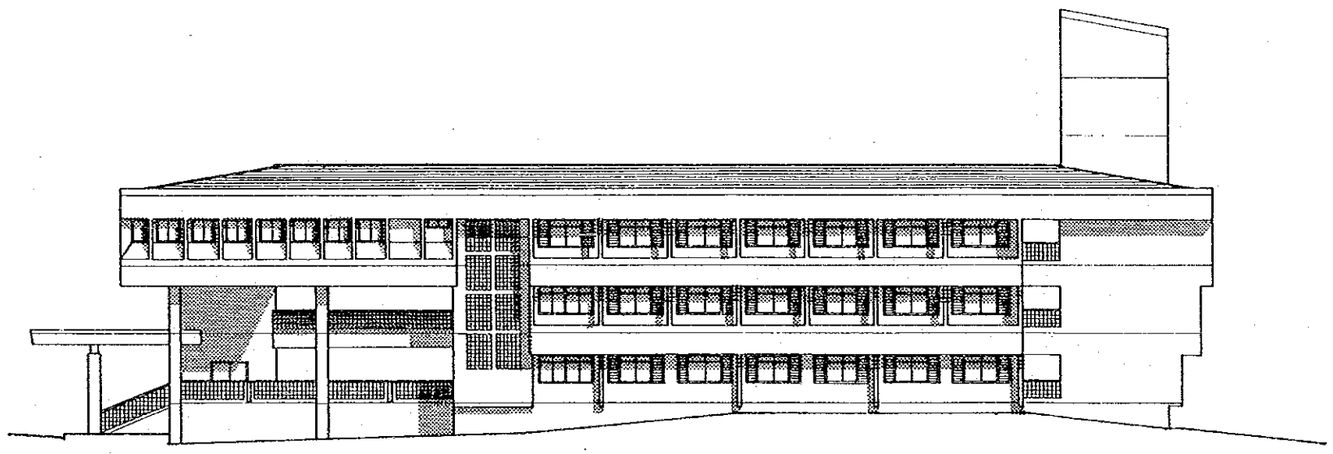


WEST ELEVATION

DORMITORY ELEVATIONS S 1:300

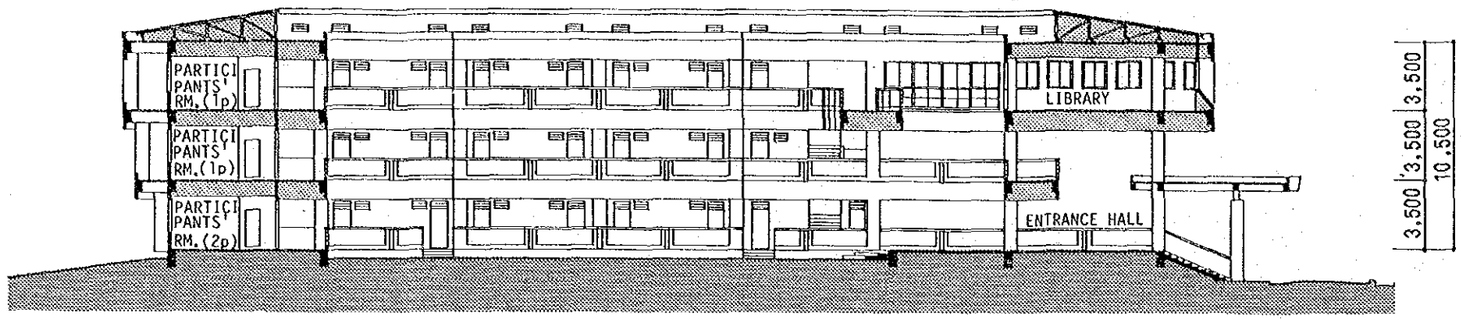


NORTH ELEVATION

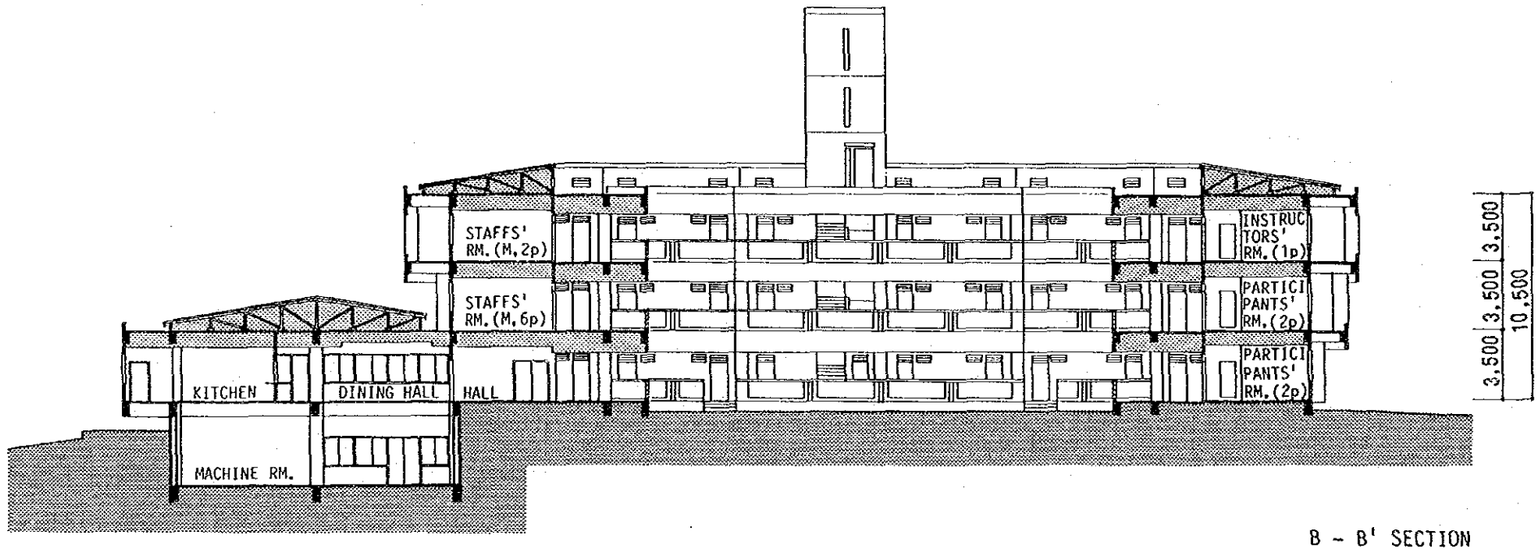


EAST ELEVATION

DORMITORY ELEVATIONS S 1:300



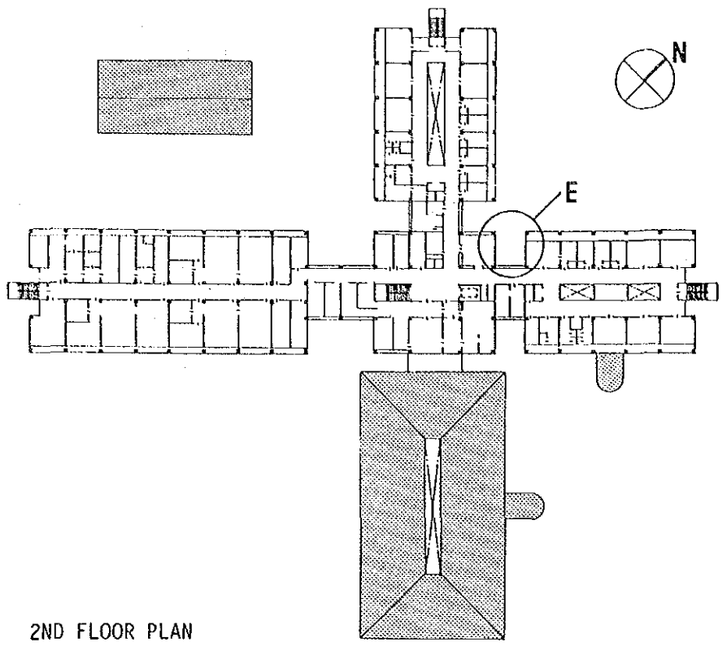
A – A' SECTION



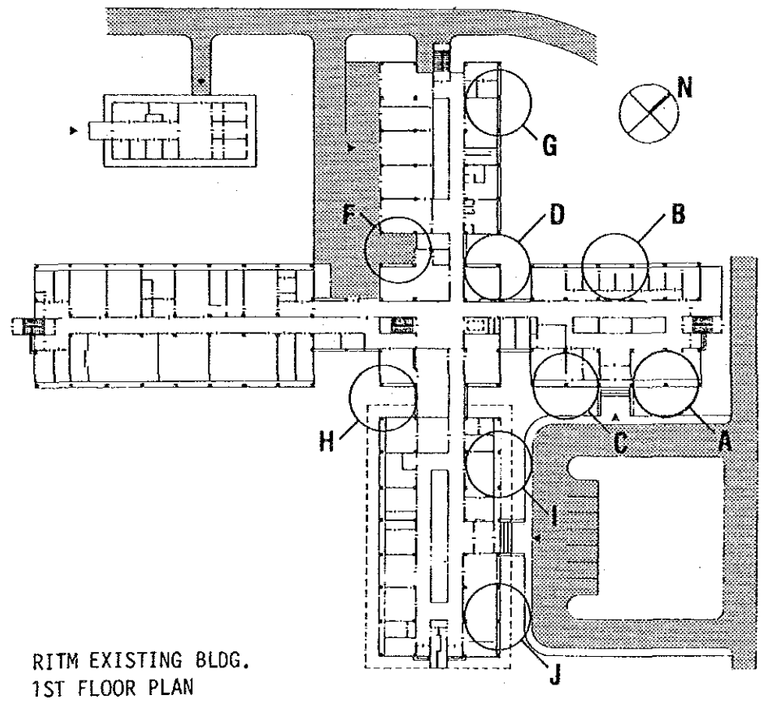
B – B' SECTION

DORMITORY SECTIONS S 1:300

12

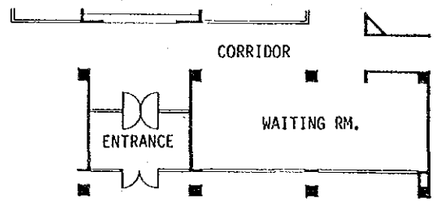


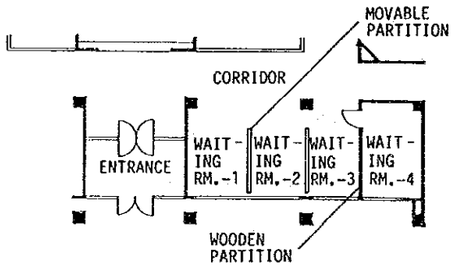
2ND FLOOR PLAN



RITM EXISTING BLDG.
1ST FLOOR PLAN

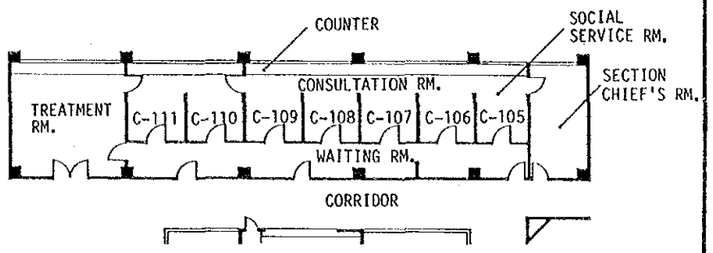
A

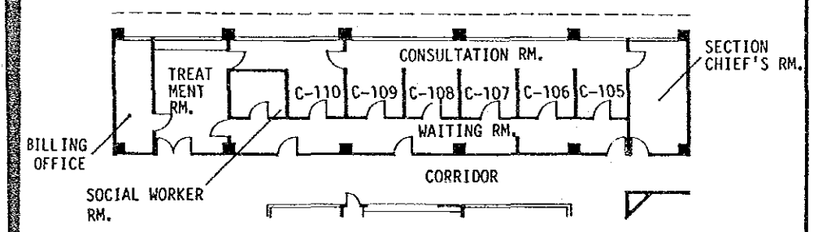




RITM EXISTING BUILDING RENOVATION PLAN S 1:300 **13**

B





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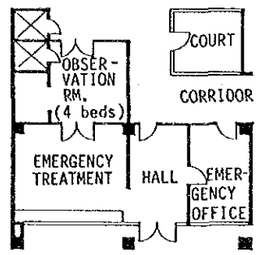

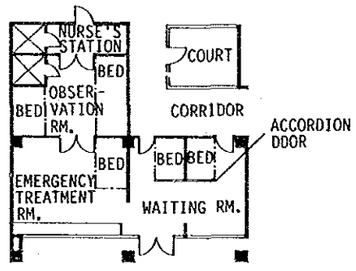

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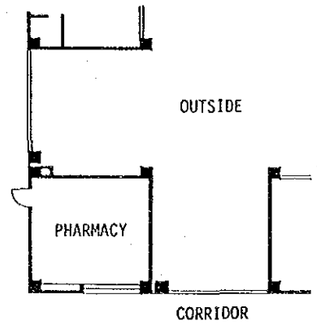
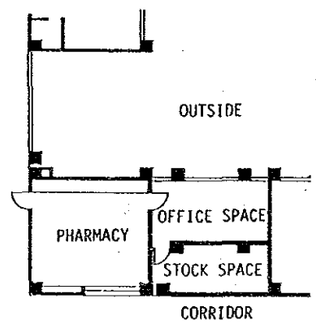
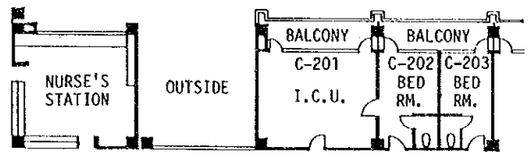
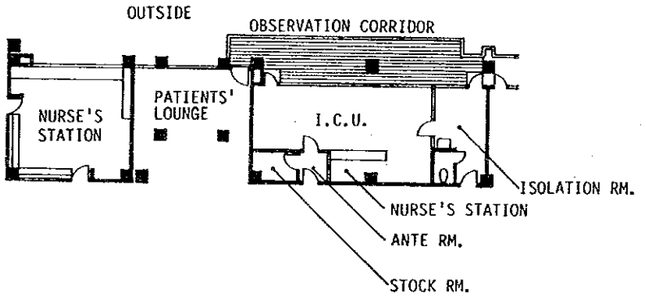




RITM EXISTING BUILDING RENOVATION PLAN S 1:300 **14**

E





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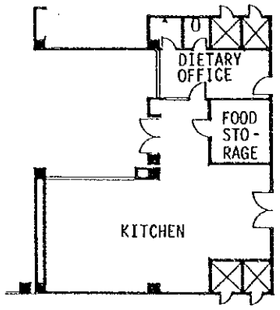

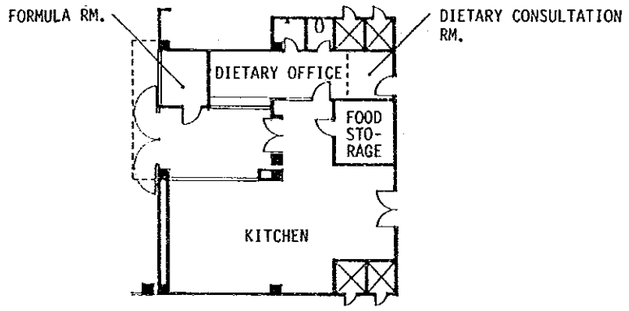

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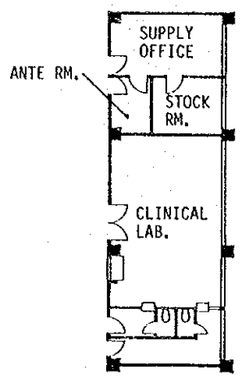
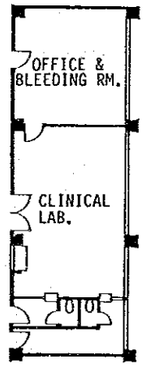
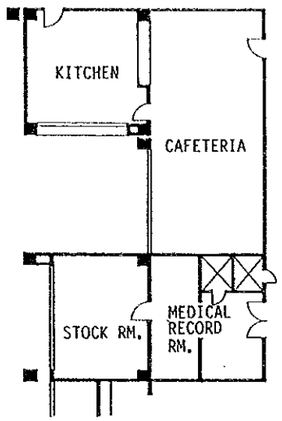
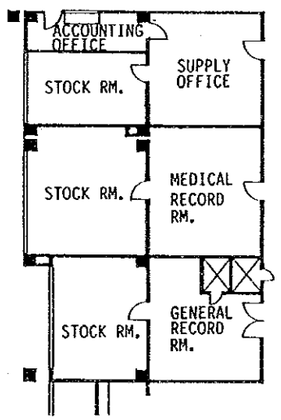




RITM EXISTING BUILDING RENOVATION PLAN S 1:300

H





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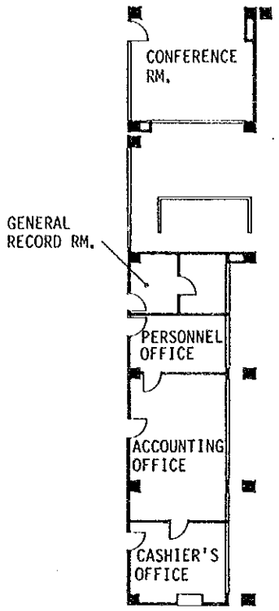

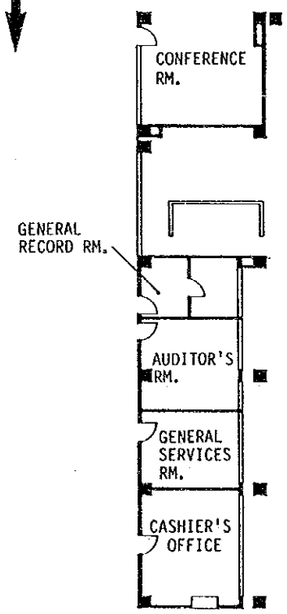

J

RITM EXISTING BUILDING RENOVATION PLAN S 1:300 **16**

CHAPTER 6

PROJECT IMPLEMENTATION PLAN

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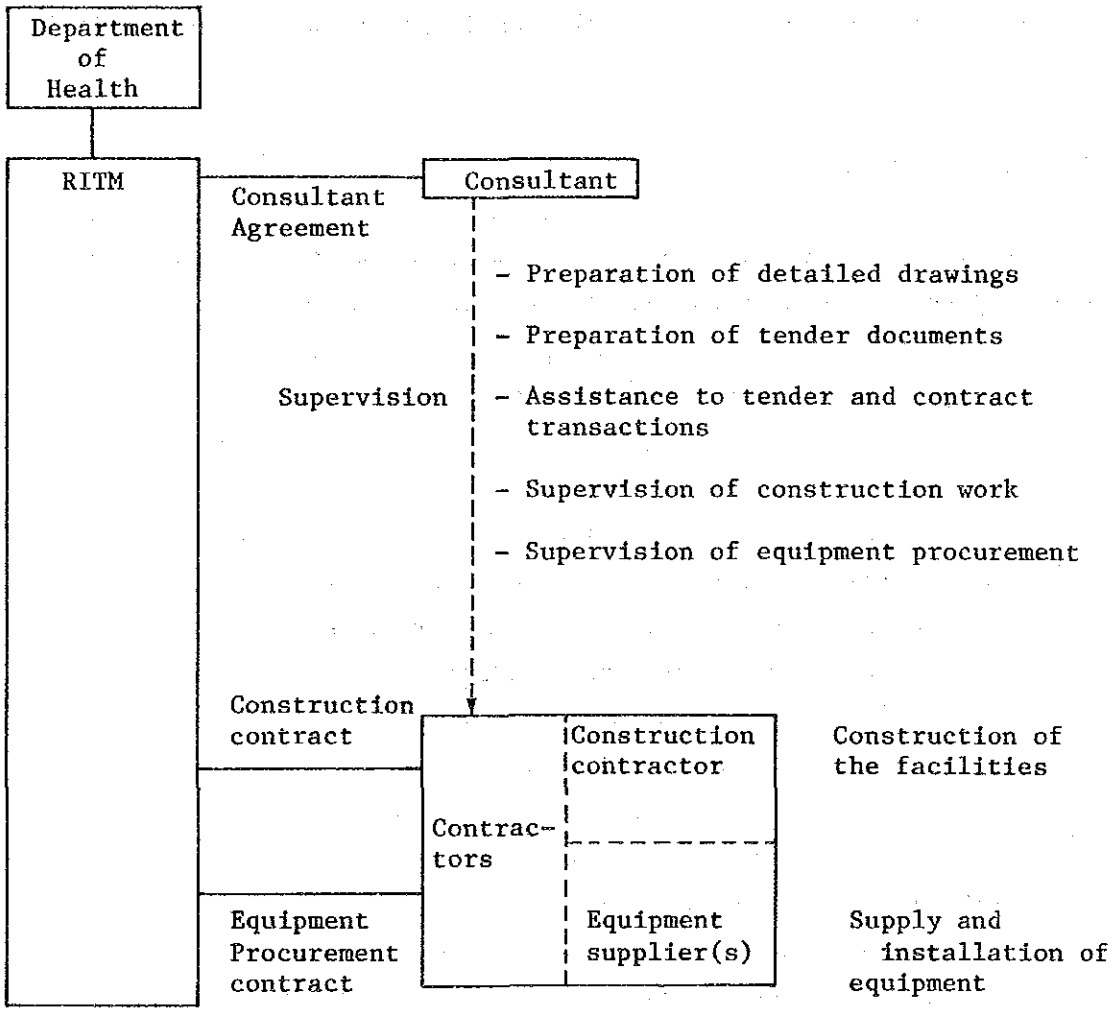
6-1 Implementation System

This project will be implemented by the Research Institute for Tropical Medicine (RITM), Department of Health. The RITM will carry out this project by concluding contracts with a Japanese consultant and contractors.



1) The consultant will conclude a consultant contract with RITM, prepare detailed design and tender documents, assist RITM in tender and contract transactions, and supervise the construction work and equipment work.

2) The construction contractor selected through this tender will be contracted to RITM and carry out the construction of the facilities under the supervision of the consultant.

3) The equipment suppliers selected through this tender will be contracted to RITM and carry out the supply and installation of the facilities equipment.

6-2 Project responsibilities

The scope of construction work to be undertaken by the Japanese under this project and that by the Philippines is shown below:

1) Responsibilities of the Japanese government

A) Buildings
   a. Training center building
   b. Dormitory building
   c. Others (guard house, covered walkway, etc.)
   d. Renovation of existing buildings

B) Water and Main Power Facilities

   Elevated watertank
   Water supply system
   Drainage system
   Sewage treating system
   Telephone exchange equipement

C) External Work

   Passage on the premises
   Drainage on the premises

D) Equipment

Equipment for:

laboratory 1
laboratory 2
central lab.
epidemiological department
conference room and lecture rooms
printing room
library
administrative division

2) Responsibilities of the Philippine government

A) Works to be done by Philippine side

a. To secure the site for the Project.

b. To clear, level and reclaim the site priror to the commencement of construction (including the removal of the existing dormitory from the construction site)

c. To undertake incidental out-door work such as gardening, fencing including gates and exterior lighting in and avound the site.

d. To provide electricity distributing line to the site.

e. To provide telephone trunk line to the main distribution panel of the building.

f. To provide general furniture such as carpets, curtains, tables, chairs and others.

B) Service and Expenditure Loads

a. General Expenditures

. To bear commissions to the Japanese foreign exchange bank for the banking services upon the banking arrangement

. To bear expenses for providing electricity distributing line and telephone trunk line to the required places.

. To bear all the expenses for tax exemption and costoms clearance of the materials and equipment brought in for the Project at the port of disembarkation.

b. To maintain and use properly and effectively those facilities constructed and equipment purchased under the Grant.

c. To take necessary measures for prompt unloading, tax exemption and customs clearance of the materials and equipment brought in for the project at the port of disebarkation.

d. To exempt Japanese nationals from custom duties, internal taxes and other fiscal levies which may be imposed in the Republic of the Philippines with respect to the supply

e. To accord Japanese nationals whose services may be required in connection with the supply of products and the services under the verified contracts such facilities as may be necessary for their entry into the Philippines and stay there in for the performance of their work.

f. To bear all the expenses other than those to be borne by the Grant, necessary for the construction of the facilities as well as for the transportation and the installation of the equipment.

g. Placement of staff members necessary for the administration, operation and maintenance of the project.

6-3 Project Implementation Plan

Following the Exchange of Notes (E/N) for this project, a consultant agreement will be concluded between the Government of the Republic of the Philippines and a Japanese consultant firm to begin detailed design drawings and documents.

The consultant will arrange, discuss and explain to RITM all construction engineering programs, the method of selecting contractors and suppliers, tenders, contracts, construction processes, etc., in accordance with the basic design.

All necessary preliminary work specified in the project responsibilities, includig the leveling of the site ground, must be completed before the commencement of the construction of the facilities so that they may not hinder construction work.

The construction work programs and all relevant details, including the schedule for leveling the site ground, which is the responsibility of the Philippines, a timetable drawn up for the construction of the neighboring infrastructure within the premises, and test operation of electrical and mechanical systems, and equipment in the presence of Philippine representatives, should be clearly established, discussed and confirmed between the Japanese consultant and the RITM.

The construction execution plan, among the implementation plans, should consider the following:

1) The rainy season (June through October) can greatly affect all work schedules. The progress of the whole construction work will greatly depend on the management of work schedules during the rainy season.

2) In the dry season (December through May), sufficient care should be taken to the curing of cast concrete, mortar and plaster works to prevent cracking.

3) Consideration should be taken to create a safe working environment and prevent pilferage on the work site.

4) Cooperation with local subcontractors is an important factor for the successful completion of the work. The contractor and local subcontractors should develop a solid working unit to ensure a smooth operation with assigned work force members given defined positions.

5) Large-scale construction works have been performed by local contractors in large cities of the Philippines such as Manila and Quezon City. Local contractors also have vast experience in construction works under grant aid from Japan, and possess sufficient capabilities to carry out the work under this project. However, the number of top local contractors with experience is limited. The competency of local contractors to be used in this project should, therefore, be fully examined.

6) The technical level of Philippine workers is fairly high. They can perform a fairly high level of work if properly instructed. The construction schedule should be planned taking into account the skills of local workers and their work efficiency.

7) A temporary dormiotory exists in the area where the project's dormitory building will be constructed. This existing dormitory must be removed before the construction of the dormitory building is commenced.
For the removal of the temporary dormitory facilities to house those who are residing in the dormitory must be prepared in advance. Arrangements should be made with RITM prior to the transfer of the residing personnel and the building of the new dormitory.

8) Building materials will be locally procured as much as possible, but some may have to be supplied from Japan in view of their quality, quantity and the delivery date, or out of necessity for special applications such as laboratory floor materials. The handling and usage of materials or apparatus supplied from Japan may not be well known to local construction engineers and may require the dispatch of experienced engineers from Japan. After an examination of local engineers for technical competency, the dispatch of Japanese technical experts, if necessary, should be scheduled.

6-4 Building Materials Procurement Plan

In principle, locally available building materials should be used as far as possilbe, in consideration of the technical and engineering capabilities (construction machinery and equipment, work abilities, and working efficiency) available in the Philippines.

A comparatively good construction work force will be available in and near Manila. However, due to the severe economic depression in recent years, a great number of workers have gone to the Middle East and other countries to find jobs. Therefore, sufficient care should be taken to employ only skilled workers and in particular engineers.

For positions and special equipment that require high levels of expertise, technical experts may be sent from Japan if necessary.

1) Materials and machinery to be Supplied from Japan

Reinforcing bar and structural steel members
Sash (aluminum, steel)
Piping component and fittings
Air conditioners
Ventilators
Pumps, fans and valves
Experimental apparatus, materials and spare parts
Generator and transformers
Special interior materials (chemical-resistant floor materials)
Sanitation fixtures
Cables and wires
Lighting fixture, panels, receptacles, and switches

2) Locally Available Machines and Materials

Construction machines (bulldozers, cramshells, tractors, excavators, dump trucks, concrete mixers, cranes, etc.)
Surveying instruments (transits, levels, etc.)
Scaffolding materials (framing members, platforms, etc.)
Cement and aggregates (sand and gravel)

Concrete secondary products (culvert blocks, precast plates)
Wooden materials and plywood
Fittings (wooden)
Glass
Paint
Interior finishing materials (ceiling, wall and floor materials)
Markers and signs

Owing to the economic recession in recent years, the quantity and quality of locally available materials is unreliable. It is important, therefore, to select after a through investigation reliable local suppliers who can guarantee the stock level, consumption schedule and all applications of materials to be used.

Most of the manufacturers, factories and distributors of the materials and products listed above are located in metropolitan Manila, and transportation will not be a problem. Supplies from Japan will, as a rule, be by boat. The shipment of supplies from a Japanese port will take about 20 days, comprising 12 days for shipping, seven days for customs clearance, and one day for transportation. Reinforcing bar and structural steel members will be bundled, piping materials will be crated, and all others will be packed in cases or cartons for shipment.

3) Equipment Procurement Plan

Instruments and equipment will be supplied mostly from Japan and need not be supplied from other countries. What is most important in their procurement is to select types or models for which after-sale and maintenance services are most readily available. Equipment produced and sold in the Philippines is desirable. Equipment that needs to be imported should be from manufacturers who have a service network, agents or similar systems in the Philippines.

The transportation and installation of equipment components, including precision instruments, should be well scheduled so that they can be transferred to the proprietor soon after their final adjustment.

Precision instruments will be packed securely, which will include vacuum packing and shipped. General instruments will be shipped only.

6-5 Implementation schedule

6-5-1 Implementation schedule

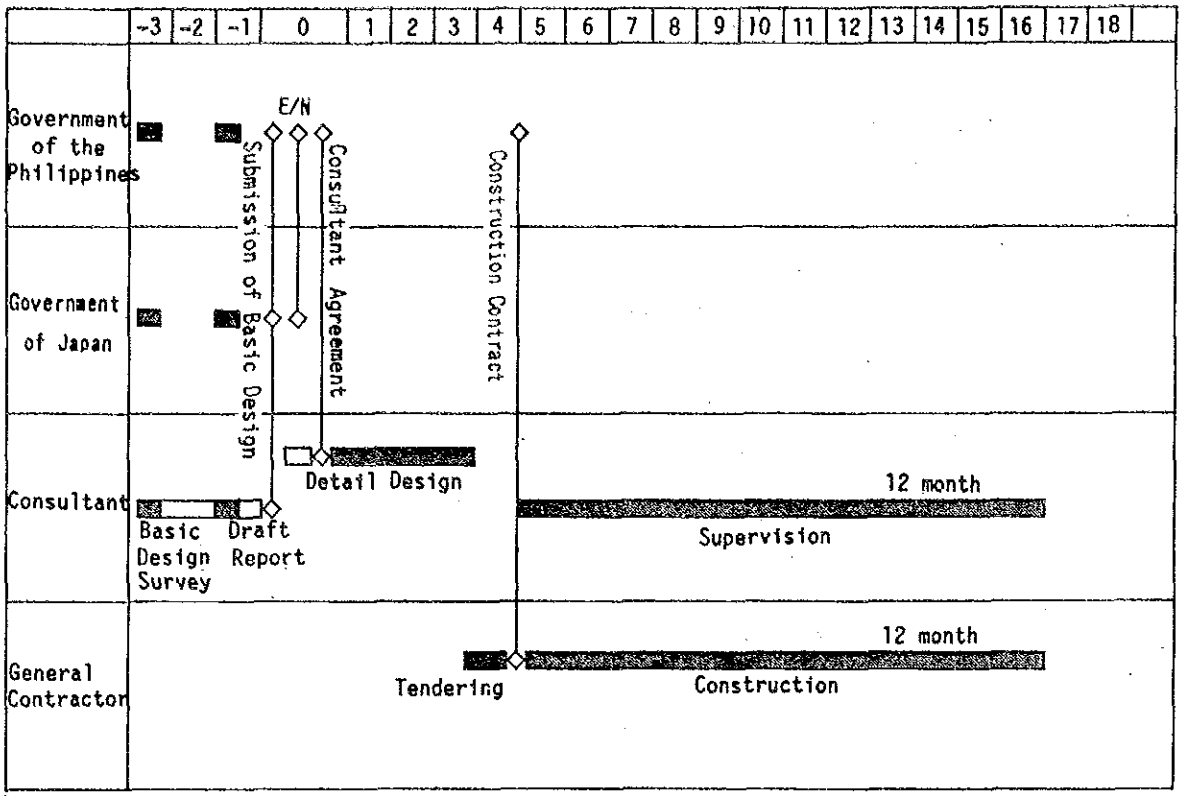
The construction of the facilites for this project is expected to be completed in 12 months, but this is a severe estimate due to the following reasons:

1) Two separate buildings are to be constructed, and at the site ground many footless rocks of about two meters in diameter are evident and some time will be needed to remove them. Soil more than 30 to 50cm below the surface consists of a stratum of hard soil called adobe, and excavation work in this soil will take time.

2) The rate of progress of work during the rainy season will be 60 to 70 per cent in comparison with the dry season.

The project implementation schedule is shown below.

Table 6-1 Implementation Schedule



(1) Detailed design and Tender Arrangement

Immediately following the Exchange of Notes (E/N), a consultant agreement will be concluded between the RITM and a Japanese consultant firm. Based on the basic design study report, the consultant will render detailed design drawings and tender documents, have these documents approved by RITM, and set about preparing for the tender. With the tender documents approved, invitations to the tender will be advertised and offered, the explanation of the tender will be made, offered tenders will be opened, prices tendered will be evaluated, and a construction contract and equipment procurement agreements will be concluded.

About three months may be necessary for the detailed design, including RITM approval, and about one month for the tender arrangements.

(2) Construction

The construction work will start immediately after the verification of the construction contract. If work can begin four months before the rainy season, the work could be completed in 12 months. The construction of the two buildings, vis-a-vis a two-storied training building and a three-storied dormitory will be commenced simultaneously and built adjacent to one another. The renovation work on part of the existing facilities will be performed while it is in use, therfore its schedule needs to be carefully arranged with the RITM. A temporary dormitory exists on the dormitory building construction site, and it must be completely removed before the commencement of the construction there. The installation and test runs of the facility's equipment will run concurrently with the progress of the construction work.

Since the equipment can be quickly installed, all equipment materials will be brought to the site approximately two months before the completion of the construction work.

6-5-2 Supervision Plan

In the supervision stage, the consultant will station a site-resident supervisor who will possess the adequate technical competency to supervise quality control, process control and safety control of the work. At an appropriate time during the progress of the work, the consultant will send a technical engineer or engineers to the site to stay for a short period of time (one week to one month) to witness tests and inspections as well as to give technical instruction and advice.

1) Policy of Supervision Plan

To maintain close communications and discuss information with concerned Philippine and Japanese organizations and agents to ensure smooth progress of the construction work.

To give pertinent instructions, directions and advice to constructors and suppliers.

To endeavor to understand and adopt as far as practicable traditional techniques and skills developed and inherited in the Philippines for the execution of the construction work, with a view to contribute to technical exchange between Japan and the Philippines.

To give necessary directions and advice for the maintenance of the facilities after completion and delivery.

2) Particulars of Construction Supervisory Services

These are as follows:

(1) To assit the RITM in awarding the construction contract

The selection of a contractor, advice to the establishment of contract terms and conditions, explanation of estimation for construction costs, assessing of estimate, preparation of contracts, and witnessing contracts.

(2) To advise contractors

To inspect and advise construction schedules.

(3) To inspect and approve shop Drawings

The inspection and approval of shop drawings, materials and samples, and equipment.

(4) To report Progress of Construction Work

To report execution and progress of the construction work to the RITM from time to time.

(5) To witness inspections

Witnessing the inspection of the buildings, materials and equipment, and inspecting the work upon completion.

(6) To witness delivery

Witnessing the delivery of completed work and the delivery of as-built drawings and relevant documents.

(7) To assist issuing necessary certificates for payments to the contractors.

Assistance in the examination and procedureal handling of documents regarding construction costs and expenses payable under the contracts.

The consultant will be required to provide the above-listed supervision services not only in the Philippines but also in Japan for materials, instruments and apparatus procured in Japan. The consultant will also be required to keep the concerned parties of the Japanese Government informed of the progress of the implementation of the project.

6-6 Rough Estimated Project Costs

The gross project costs are estimated based on the field survey data and design drawings.

The gross construction-related cost to be borne by the Philippine government is estimated at 11,600,000 yen, of which the breakdown is as follows:

Temporary personnel dormitory construction cost	¥2,000,000
Existing personnel dormitory removing cost	¥ 450,000
Power service line building cost	¥3,250,000
Outer and inner fence construction cost	¥2,000,000
Landscape gardening cost	¥1,000,000
General furniture cost	¥1,900,000

CHAPTER 7

MAINTENANCE AND ADMINISTRATION PLAN

CHAPTER 7 MAINTENANCE AND ADMINISTRATION PLAN

7-1 Personnel Plan

The RITM has three divisions 1) the Research and Training Division, 2) Clinical Research Division, and 3) Administrative Division, with a total number of 370 personnel.

The Training Center under the project is to be administered as part of the RITM, and will require no major modification by it. Additional personnel required by the construction of the new facilities to RITM will be as follows:

Training Center Manager	1
Audio Visual Technician	1
Clerks	2
Laboratory aides	4
Utility men	4
Total	12

The RITM currently maintains contracts with private service companies for equipment maintenance service, security service, and cleaning maintenance service. The particulars of the contracts are as follows:

Contracted Service	Contractor	Manning	Service Charge (pesos/month)
Equipment maintenance	P.P.RAMOS CONSTRUCTION AND GENERAL SERVICE	20	62,000
Security	BOLINAD SECURITY SERVICES	14	27,000
Facilities cleaning	FAMOUS GENERAL MAINTENANCE SERVICES INC.	14	22,000

7-2 Administration Costs

The administration costs (budget) of RITM for 1987 are as follows:

Personnel expenditures	8,614,000 pesos
Maintenance and management expenditures	5,590,000 "
Equipment and materials purchase cost	437,000 "
Total	14,641,000 pesos

The facilities and equipment maintenance expenses and power charges at RITM in 1984 through 1986 were:

(unit pesos)

	1984	1985	1986
Electric charges	71,565	169,533	238,409
Telephone charges	32,004	8,445	7,578
Gas (LPG) charges	73,425	136,650	119,918
Facilities repair expenses	787,289	731,288	782,313
Equipment maintenance expenses	36,746	62,290	199,385

7-3 Facilities Maintenance and Management plan

1) Buildings

The life of buildings varies greatly depending on the frequency of routine maintenance and cleaning provided. If a building is kept clean and well maintained, the employees appreciate a good working environment and will naturally treat the building's equipment and furniture with respect. This may lead to the early detection of breakages or malfunctions which result in lower repair costs.

The cleaning of the facilities under the project will be entrusted to a private cleaning service company.

Repairs will not be necessary to the structural body and framing, but will be mainly in the form of the repair, refurnishing or remodeling of the interior and exterior facilities and furnishing.

Periodic inspection or repairs to the buildings should preferably be made as follows:

(Exterior)

- Repair of outside fittings, repainting, and inspection of concrete walls for neutralization cracks (Once every 5 years)

- Inspection/repair of rooting materials (Inspection once every year, and repair once every 5 years)

- Inspection/repair of waterproofing (Inspection once every year, and repair whenever necessary)

- Periodic cleaning of gutter and drain spoutes (Once a month)

- Inspection/repair of exterior sash seals (Once a year)

- Coating of outside sashes (Once every 5 years)

- Periodic inspection and cleaning of gutters and manholes (Once a month)

- Periodic caretaking of garden and plants (When necessary)

(Interior)

- Refurbishing of interior furnishing (When necessary)

- Repair/repainting of inside walls (When necessary)

- Replacement of ceiling (When necessary)

- Adjustment and tightening of fittings, and replacement of metal fittings (Once a year, and any other times if necessary)

In regards to security, the screening of all people entering and leaving, incoming and outgoing commodities, and a 24-hour patrol will be necessary to protect the building and research equipment against pilferage.

2) Building service facilities

Sufficient knowledge of the functions and operations of the building service facilities is an important requirement for their proper maintenance.

The building service facilities must be properly operated, maintained, and periodically inspected. In addition, it requires and effective maintenance system to prevent the occurrence of mechanical failures and one in which immediate attention can be given in the event of unavoidable breakdowns. To meet this requirement, the equipment maintenance agreement currently held between the RITM and the maintenance service company will be expanded to cover the facilities under the project.

The equipment components will also require periodic overhauls and parts replacement. These must be carried out for individual components.

The generally accepted service lives of general equipment components are listed below, and at the end of this time, they should be replaced.

(Electrical)	
- Generator	15 to 20 years
- Distribution panel	20 to 30 years
- Fluorescent lamp	5,000 to 10,000 hours
- Incandescent lamp	1,000 to 1,500 hours
- Telephone exchange	40 years
- Microphone/speaker	10 to 20 years
(Water Supply and Drainage)	
- Pump	10 to 15 years
- Tank	15 to 20 years
- Piping, valve	10 to 15 years
- Sanitary fixture	25 years

- Fire distinguisher	20 years
- Gas appliance	6 years
- Sewage treating machine	7 years

(Air Conditioning Equipment)

- Piping	10 to 15 years
- Fan	10 to 15 years
- Air conditioner	10 to 15 years
- Package air conditioner	5 to 10 years
- Refrigerator	5 to 10 years

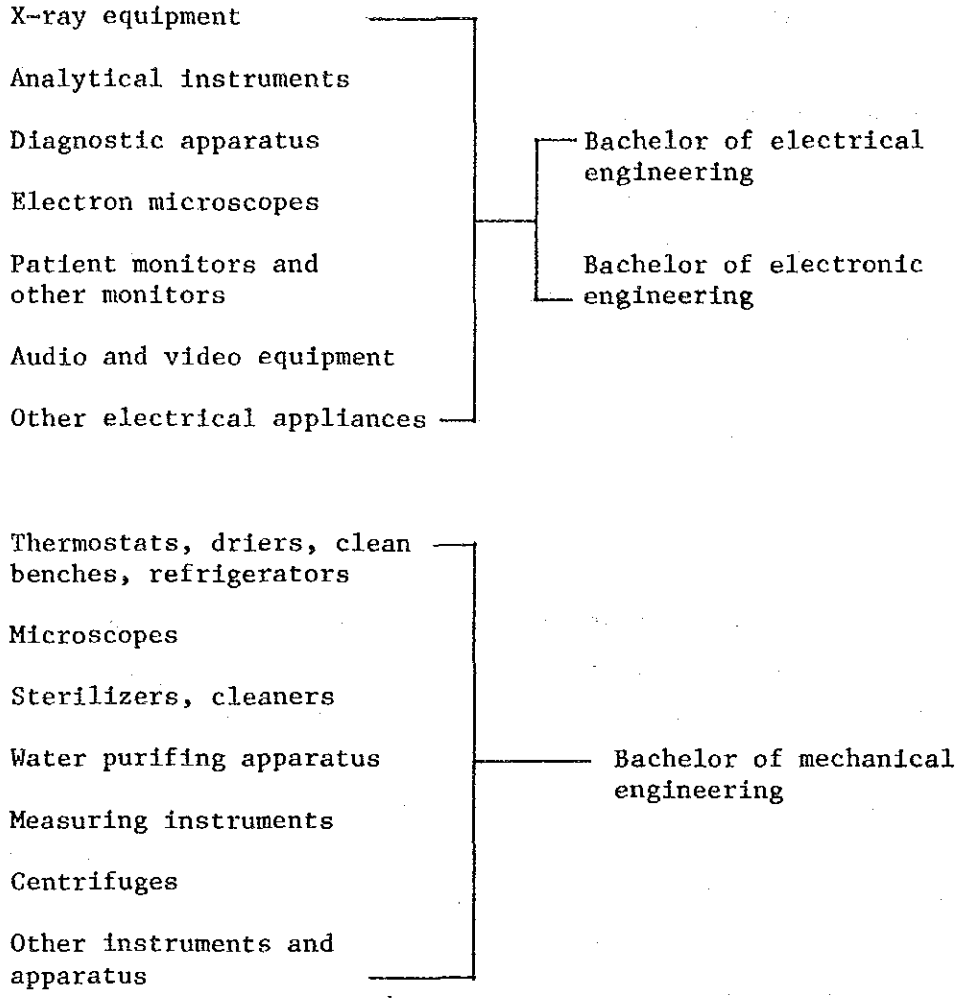
7-4 Equipment Maintenance and Management Plan

7-4-1 Maintenance Personnel Plan

The equipment of the existing facilities, having been in use for more than six years, have a few problems. It will be necessary to review the existing maintenance system utilizing past experience. In fact, at the time of this survey, most of the sophisticated equipment, including X-ray apparatus, are in disorder or in some way or other malfunctioning. A maintenance engineer will usually find it quite difficult to examine, and even more so, to repair a highly sophisticated apparatus if he is not specialized. So, if it malfunctions, it may be left unrepaired. This possibility must be taken into consideration when planning equipment maintenance. If a private maintenance service agent fully capable of providing inspection and repair services for sophisticated apparatus is available, it is far better to use them than to allow unspecialized institute engineers to perform this work. Nevertheless, it is important to have contracted maintenance staff who have at least a redimental knowledge of inspection and examination techniques.

Thus, equipment maintenance staff should be provided. At present, three maintenance men are assigned for the existing equipment, but they appear to lack sufficient technical training. It is desirable to re-establish a maintenance system as shown below, including the men presently assigned, into the system and be supported by the manufacturers of the apparatus.

Maintenance Staff Assignment



7-4-2 Periodic Inspection and Maintenance

The current inspection and maintenance procedures for the existing equipment will also apply to the new equipment.

The current procedures include the entering of information (date inspected, items inspected, results of inspection, and repairs if any) and the sealing of a maintenance record card, but this inspection is superficial. Hereafter, the regular inspection and maintenance of equipment will be conducted to prevent equipment from breaking down.

For apparatus requiring high-level maintenance techniques, arrangements should be made with the manufacturers to have on-site inspection/maintenance services once or twice a year.

The frequency of inspection and maintenance required for specific apparatus (including those not covered under the project) follows:

	By inside staff	By manufacturers
Analytical instruments	(Once/month)	(Twice/year)
Centrifuges	(Twice/month)	(Twice/year)
Electron microscopes	(Once/month)	(Once/year)
Monitors	(Once/month)	(Once/year)
Thermostats, driers, clean benches, refrigerators	(Twice/month)	(Twice/year)
Microscope	(Once/month)	(Once/year)
Sterilizers, cleaners	(Twice/month)	(Twice/year)
Water purifing apparatus	(Twice/month)	(Twice/year)
Measuring instruments	(Once/month)	(Once/year)
X-ray apparatus	(Once/month)	(Once/year)
Audio and video equipment	(Once/month)	(Once/year)
Other medical equipment	(Once/month)	(Once/year)

7-5 Maintenance and Management Costs

The annual costs for the maintenance and management of the facilities after completion of construction and delivery to the proprietor are estimated, based on current prices (as at July 1987), as follows:

Annual maintenance and management items

1) Personnel expenditures
2) Facilities operation expenditures
3) Cleaning and security expenditures
4) Facilities maintenance, inspection and repair expenditures
5) Training material maintenance and management expenditures

1) Personnel Expenditures

The annual income to the personnel to be employed for the new facilities under the project are as follows:

		Annual Pay(Pesos)	
		Per capita	Total
Training Center Manager	1	56,795	56,795
Audio Visual Technician	1	40,586	40,586
Clerks	2	21,698	43,396
Laboratory aides	4	40,586	162,344
Utility Men	4	19,450	77,800
Total	12		380,921

2) Facilities Operation Costs

Based on the annual consumption of electricity, LPG and fuel oils at estimated operational loads, the facilities annual operational costs are calculated. Water charges are included in the electricity charges because water for the new facilities will be supplied from a well.

The management of the dining room is to be entrusted to a third party, and therefore the expenses for LOG are to be borne by the third party and are not included in the operation costs.

(a) Electricity Charges

Lighting

Training Center 110 KW x 8 h/day x 365 x 2/7 day x 0.29 pesos/kwh = 26,600 pesos/year

Dormitory 72 kW x 8 h/day x 365 x 0.29 pesos/kwH = 61,000 pesos/year

Room coolers

Training center 92 kW x 8 h/day x 365 x 2/7 day x 0.29 pesos/kWh = 22,300 pesos/year

Dormitory 10 kW x 10h/day x 365 x 0.29 pesos/kwH = 10,600 pesos/year

Equipment for experiments

40 kW x 8 h/day x 365 x 2/7 day x 0.29 pesos/kwH
= 9,700 pesos/year

Stage equipment

72 kW x 8 h/day x 365 x 2/7 day x 0.29 pesos/kwH
= 17,400 pesos/year

Draining system 20 kW x 3 h/day x 365 x 0.29 pesos/kWh
= 1,800 pesos/year

Water supply system 50 kW x 3 h/day x 365 x 0.29 pesos/kWh
= 15,900 pesos/year

Basic Rate 470 kW x 6.65 pesos/kW.m x 12 monthly
= 37,500 pesos/year

Total 202,800 pesos/year

(b) LPG

For training experiments

27fcocks x 300kcal/h x 5h/day/11,000kcal x 365 x 2/7day x
8.34 pesos/kg = 3,200 pesos/year

(c) Fuel Oils

Generator

10h/month x 12m/year x 200KVA x 0.8 x 0.351kWh x 5.85 pesos/l
= 39,300 pesos/year

Microbus

100km/day x 365/year x 5/7 x 0.21/km x 8 pesos/l= 41,700 pesos/year

3) Cleaning and Security Costs

The cleaning and security services for the existing RITM facilities are entrusted to private service companies, at the monthly commission rates as follows:

Cleaning charge: 22,055 pesos/month
Security charge: 26,650 pesos/month

Since these charges are based on the size of the facilities covered, the cleaning and security charges covering both the existing and the new facilities may be calculated by simply multiplying the above-stated charges proportionately:

Cleaning charges:	24,480 pesos/mo. x 12 mo.
	= 293,760 pesos/year
Security charges:	29,580 pesos/mo. x 12 mo.
	= 354,960 pesos/year
Total	648,720 pesos/year

4) Facilities Maintenance, Inspection and Repair Costs

The building repair costs will increase over the years, but will be negligibly inexpensive approximately five years after completion of the buildings.

The maintenance and inspection of the existing RITM's building equipment are entrusted to a private service company at a monthly rate of 61,900 pesos. The annual rate covering both the existing and the new facilities, calculated in the same proportional way as in the case of cleaning and security charges, is as follows:

68,709 pesos/mo. x 12 mo. = 824,508 pesos/year

The total cost of replacement parts, the cost of overhauls, and the cost of the replacement of equipment components/instruments proper is estimated at three to five per cent of the average annual equipment installation cost.

35,000,000 pesos x 3% = 1,050,000 pesos/year

Hence, the total costs under this category will be:

Total 824,508 pesos/year + 1,050,000 pesos/year
= 1,874,508 pesos/year

5) Training Material Maintenance and Management Costs

The annual maintenance and management costs under this category, calculated by increasing the actual expenses in 1986 by 10%, are as follows:

Annual Expenses for Parts and Repairs (by RITM)
(Estimated for 1987 based on 1986 figures)

Apparatus

Analytical instruments (including gas appliances)	20,000 pesos
Centrifuges	22,000
Electron microscopes	16,500
Thermostats, cleaners	4,500
Refrigerators	3,000
Sterilizers, cleaners	4,500
Water purifying equipment	24,000
Microscopes	4,000
Diagnostic apparatus	0
Monitors	0
X-ray equipment	50,000
Balancers	3,000
Total	151,000 pesos

The above estimations of the maintenance and management expenses do not cover the instruments and equipment to be supplied under this project. The instruments and equipment supplied under the projet will not appreciably increase the maintenance and management expenses for the time being.

The costs of the expendables by the analytical, medical and testing apparatus, calculated by increasing the actual costs in 1986 by 10%, are as follows:

X-ray film (including film for microcopes)	112,000 pesos
Medical expendables	180,000
Reagents for tests	145,000

In addition to those mentioned above, the supply of equipment and expendables, to the amount of 50 million yen, have been and will be implemented by Japan through technical cooperation in 1986 and 1987.

There is a budget problem for equipment maintenance after completion of these technical cooperation, this problem has already been taken into consideration by the Government of the Philippines.

CHAPTER 8

PROJECT EVALUATION

CHAPTER 8 PROJECT EVALUATION

This project is aimed at improving and expanding the functions of the Research Institute for Tropical Medicine, Department of Health, in the Republic of the Philippines. This institute was established for the purpose of training medical and paramedical staff engaged in immunological survey and research, etimological research, clinical survey and research, and medicine for eradicating tropical, infectious and other diseases in the Philippines. To determine this evaluation, the Project has been judged by the social and economic effects it can produce.

Since opening in 1981, the RITM has accumulated a large variety of research results backed by the Government of Japan, and has contributed to the eradication of tropical infectious and other diseases in the Philippines. The performance of the Institute has been highly appreciated both domestically and abroad. The present objective of the Institute is to gather further research results and to vastly diffuse them for domestic and international use, and it appears that the RITM has reached a level of development whereby it can implement this operation. However, the number of staff and patients have increased far more than anticipated, and the facilities of the RITM are now limited, despite its efforts to construct additional small-scale buildings and modify the layout. Presently, it is feared that difficulties may arise to restrict research and training activities.

Under these circumstances the Project for Improvement and Expansion of the RITM should drastically improve the situation by, 1) the construction of a new training center so that the Institute may start this fiscal year the Third Country Training Programs, and possibly have the opportunity to conduct other training programs and 2) the construction of a dormitory for participants and instructors concerned and for on-duty staff to facilitate the 24-hour clinical system. Evaluation is made hereunder as to the effect of the Project for the training activities and the improvement of the working environment for on-duty staff to be realized under the above-mentioned circumstances:

1) Implementing agency

The implementing agency of this project is the Research Institute for Tropical Medicine (RITM). The Department of Health shall be responsible for the integrated procedures including budget allocation, project administration, and customs clearance from the implementation and design stage to the completion of the project. It is appropriate that for the execution of the Project the RITM will act as the implementing agency.

2) Operation and administration system

The present operating system of the RITM including that of the new training and dormitory buildings will continue without alteration after such buildings are constructed under the implementation of the RITM improvement and expansion project. The operation of the RITM is presently carried out in a satisfactory manner, and as a result of the completion of the training center and dormitory buildings the number of additional staff will be twelve only with the majority of extra workload to be performed by expanding the responsibilities of the present staff. None of the new facilities and equipment will require special operation, maintenance, or administration, and it is planned that they can be operated under the present conditions. Annual maintenance and administration expenses are approximately 3.2 million pesos according to a trial calculation, which occupy only 0.07 of the total budget of the Department of Health, falling within the range to which the budget may be easily allocated.

3) Project effects

The benefits which are expected from implementation of the project are described as follows:

(1) Upgrading of training capability

Construction of a new training center will enable 451 participants to attend training each year, about three times more than those trained in 1985, thereby contributing to an increase in manpower engaging in tropical medicine research. This will ensure that the research results of the RITM will be made available widely and rapidly, and will accelerate efforts to eradicate tropical infectious diseases, increase the working population, and lead to further economic development of the Philippines as a result of an improvement in the health care level.

(2) Improvement of working environment for RITM staff

Since a role of the RITM's clinical department is to supply data to its research departments and also act as a local medical center, it is vital that the RITM establish a 24-hour management system. This system is now performed at the sacrifice of the staff working under unsatisfactory working environment. When the 56 bed dormitory building is completed, the environment will be improved and further achievements will be produced in the medical services.

(3) Improvement of research and office work environments

When the new buildings are completed, some of the functions carried out in the existing facilities of the present RITM will be transferred to these new buildings. As a result, more space will become available for the administration and research departments which are presently limited in available space, thereby improving the working environment and enabling the RITM to cope with possible expansion of its operation in the future. When the reconstruction of the clinical department is completed which will enable patients to move more efficiently, more effective medical services will be offered to them and better research results will be expected.

This Project is concerned with the construction of facilities to be added to and administered by the existing RITM, and only a small number of additional staff will be required to manage the new facilities. The benefits of this Project far outweigh the economic burden.

This Project has been so designed to utilize, as far as practical, those construction materials and methods which are locally available in carrying out the construction work, so that the construction costs may be reduced as much as possible. It is expected that the design of the buildings will incorporate natural lighting and natural ventilation in order to minimize maintenance and administration, therefore keeping costs as low as possible.

In conclusion, it is evaluated that the implementation of this Project will substantially contribute to the betterment of health care in the Republic of the Philippines.

CHAPTER 9

CONCLUSION AND RECOMMENDATIONS

CHAPTER 9 CONCLUSION AND RECOMMENDATIONS

CONCLUSION

After surveying and analyzing the contents of the request made by the Government of the Philippines for the Project for Improvement and Expansion of the Research Institute for Tropical Medicine and diversified points related to implementation of this project, a basic design, as explained in Chapter 5, has been prepared. Moreover, it is concluded that this project fully meets the request of the Government of the Philippines and is indispensable in improving the health care of the Philippine people, especially for the eradication of tropical infectious diseases.

Research and training are dependent on each other. In other words, the quality and the content of the training depends directly upon those of the research activities. Moreover, the training activities of the RITM are conducted to develop and expand results of its conventional activities rather than the creation of new projects. Taking these factors into consideration, this project is an integral part of the expansion program of the RITM itself rather than an ancillary program for the existing RITM.

Tropical infectious diseases are one of the significant factors that hinder economic development in many Southeast Asian countries, not only the Philippines. It is anticipated, therefore, that results produced by implementing this project will benefit, not only the Philippine people, but the other Asian countries as well.

Taking into consideration that technical cooperation by the Japanese Government will be completed in March 1988 and that the RITM will have to be administered without any foreign assistance thereafter, it is important and quite opportune that the facilities of the RITM should be upgraded at this time.

Therefore, the implementation of this project with grant aid from the Japanese Government is highly recommended.

RECOMMENDATIONS

It is recommended that the authorities from the Government of the Republic of the Philippines and from the Government of Japan should take necessary measures to execute the below-mentioned points for the purpose of smoothly promoting this project and ensuring that it is a project which will undertake further development of the RITM:

1) Cooperation and assistance such as the dispatch of instructors and financial assistance by domestic and foreign agencies concerned and the guidance and assistance of international organizations is necessary and indispensable for the RITM to be smoothly operated. It is preferable that the RITM should be operated in coordination with these agencies and organizations.

2) RITM's research on tropical medicine has reached its highest level in the Philippines. Well-equipped facilities, sophisticated instruments and medicine are necessary to continue these research activities. Although facilities and instruments have been or will be fully supplied under this project, many of the consumable items and medicine will have to be procured from foreign countries. The Government of the Philippines should take appropriate measures to allocate budget, including foreign currency, for procuring such consumable items and medicine from foreign countries so that the research in the RITM can make further progress.

3) It is expected that the substantial expansion of the training activities of the RITM will advance research activities. Further operational expenses will be required for creating excellent results and enhancing research. The Government of the Philippines should allocate a budget to ensure the future operation of the RITM.

Appendix

I. Members of Basic Design Study Team

I-1 Basic Design Study Team

Name	Position
Mr. Hironao SUZUKI	Leader, Chief of First Basic Design Study Div., Grant Aid Planning & Survey Dept., Japan International Cooperation Agency (JICA)
Mr. Naoki FURUTA	Training & Equipment Planning, Director, MD. Experts Dispatch Service Div., Dept. of International Cooperation, National Medical Center, M.O.H.
Mr. Seiichi MATSUDA	Architectural Planning, Matsuda Consultants International Co., Ltd.
Mr. Hidefumi INOUE	Architectural Design, Matsuda Consultants International Co., Ltd.
Mr. Yasuaki KAWABE	Architectural Design, Matsuda Consultants International Co., Ltd.
Mr. Yasuo OHDERA	Facility planning, Matsuda Consultants International Co., Ltd.
Mr. Katsutoshi TANAKA	Equipment Planning Matsuda Consultants International Co., Ltd.

I-2 Draft Confirmation Team

Name	Position
Mr. Sakae INOUE	Leader, Director of Dept. of Microbiology, Institute of Public Health, M.O.H.
Mr. Naoki FURUTA	Training & Equipment Planning, Director, MD. Experts Dispatch Service Div., Dept. of International Cooperation, National Medical Center, M.O.H.
Mr. Seiichi MATSUDA	Architectural Planning, Matsuda Consultants International Co., Ltd.
Mr. Katsutoshi TANAKA	Equipment Planning Matsuda Consultants International Co., Ltd.

Appendix II Itinerary

II-1. Itinerary of the Basic Design Study Tem

Number	Date		Schedule
	1987		
1	25 May (MO)	Tokyo to Manila, JL741	
		16:00	Manila JICA office, briefing of schedule. (Leader Mr. Kaneko, Mr. Okazaki, Coordinator Mr. Ichinose)
		17:10	Japanese Embassy, briefing of survey schedule and Philippine medical affairs. (Mr. Adachi)
		18:10	JICA Philippine office, briefing of procedures and schedule. (Mr. Miyamoto, Manager)
		19:00	Hotel, internal meeting
2	26 May (TU)	9:00	Ministry of Health, Briefing by Mr. M. Taguiwalo, Deputy Minister, Management of Hospitals and Facilities, of objectives and inception report. Presentation of inquiries about medical policies of the Ministry.
		10:30	Review of items of inquiry and evaluation of RITM's position.
		11:30	Visit to RITM. Discussion with Kaneko and Ichinose.
		14:00	First meeting with RITM leaders.
		17:30	Visit to RITM existing facilities.
3	27 May (WE)	9:00	Second meeting with RITM staff, survey for existing facilities, interview.
		13:30	Discussion with RITM staff about clinical department and items of inquiry.
		17:30	Hotel, internal meeting.

Number	Date		Schedule
4	28 May (TH)	9:30	Third meeting with RITM staff, discussion about items of inquiry.
		14:00	Briefing by RITM personnel in main departments and divisions about present situation.
			Mr. Kawabe to arrive, Mr. Inoue to leave.
5	29 May (FR)	9:00	Fourth meeting with RITM staff, (Leader Suzuki, Matsuda, Kawabe)
			Observation of related facilities. (Yoshida, Tanaka, Odera)
6	30 May (SA)	9:30	Fifth meeting with RITM staff.
7	31 May (SU)	Review of collected data, schedule planning, map drawing.	
8	1 June (MO)	9:00	Ministry of Health, Mr. Taguiwalo, Deputy Minister, and Leader Suzuki to sign the minutes.
			Photographing of RITM existing facilities.
		14:00	Courtesy call to NEDA, survey for site proposed for construction.
9	2 June (TU)	9:30	Observation of related facilities (FAD, BRL)
		13:00	Sixth meeting with RITM staff.
			Observation of Makati Medical Center
10	3 June (WE)	10:00	Courtesy call to WHO.
		10:30	Report of survey results to Manila JICA office.
		12:00	Leader Suzuki and Mr. Furuta to Leave.
		13:00	Review of collected data.
11	4 June (TH)	9:00	Visit to International Rice Research Institute.
		14:00	Discussion with Leader Kaneko and Coordinator Ichinose.

Number	Date		Schedule
12	5 June (FR)	9:00	Review of collected data. Drawing for planned construction.
		15:30	Seventh meeting with RITM staff.
13	6 June (SA)	9:00	Review of collected data. Collection of rules and regulations for building and construction.
14	7 June (SU)	9:00	Review of collected data.
		18:30	Internal meeting
15	8 June (MO)	9:00	Collection of data related to construction costs (with Kaneko team).
		10:45	Meeting with RITM staff.
		14:00	Meeting with RITM staff.
16	9 June (TU)	9:00	Visit to INNOTEC.
		14:00	At the site, confirmation of building arrangement plan. Collection of related materials.
17	10 June (WE)	9:30	Survey for constructional affairs.
		14:00	Meeting with RITM staff, reconfirmation of renovation plans.
18	11 June (TH)	9:00	Survey for construction matters. Visit to Department of Public Works and Highways.
		13:30	Meeting at RITM.
		17:00	Manila JICA office, interim report of survey.
19	12 June (FR)	13:30	Final meeting with RITM.
20	13 June (SA)	Supplementary survey.	
21	14 June (SU)	Manila to Narita, JL742	

II-2 Itinerary of Draft Confirmation Team

Number	Date		Schedule
1	1987 24 Aug. (MO)	Tokyo to Manila	
		16:00	Manila JICA office, briefing of schedule. (Director Mr. Miyamoto, Mr. Kaneko, Mr. Osawa, Mr. Ichinose)
		17:10	Japanese Embassy, briefing of the Basic Design Study Report (Draft)
2	25 Aug. (Tu)	10:00	Visit to NEDA, Briefing of schedule (Mr. Rodolfo C. Sabas)
		14:00	Discussion with RITM leaders submit Basic Design Study Report (10 copies) and perspectives
	26 Aug. (We)	9:00	RITM, Confirmation of Basic Design Study Report
		13:00	Ministry of Health Courtesy call to Minister Alfredo R.A. Bangzon M.D. Submit perspectives
		17:30	Hotel, Internal meeting
	27 Aug. (Th)	9:00	Discussion with RITM staff
		15:00	Hotel, Internal meeting
		16:00	Supplementary survey
	28 Aug. (Fr)	Breakout of a coup d'etat attempt	
		10:00	Hotel, Internal meeting
	29 Aug. (Sa)	10:00	Return to Japan (leader Inoue, Mr. Furuta)
		13:00	Data arrangement
		14:00	Supplementary survey
	30 Aug. (Su)	Manila to Tokyo	

APPENDIX III. Minutes of Discussions

III-1 Basic Design Study

MINUTES OF DISCUSSIONS ON THE BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF THE TRAINING CENTER OF THE RESEARCH INSTITUTE FOR TROPICAL MEDICINE, DEPARTMENT OF HEALTH, REPUBLIC OF THE PHILIPPINES

In response to the request made by the Government of the Republic of the Philippines for Grant Aid for the Project for Construction of the Training Center of the Research Institute for Tropical Medicine (hereinafter referred to as "The Project"), the Government of Japan decided to conduct a Basic Design Study on the Project and entrusted the Japan International Cooperation Agency (JICA) to send the Basic Design Study Team headed by Mr. Hironao SUZUKI, Head of the First Basic Design Study Division, Grant Aid Planning and Survey Department, JICA, to the Philippines from May 25 to June 14, 1987.

The Team had a series of discussions with the authorities concerned of the Government of the Republic of the Philippines and conducted a field survey in relation to the objective of the Project. As a result of the study, both parties have agreed to recommend to their respective Governments that the major points of understanding reached between them as attached herewith should be examined towards the realization of the Project.

Manila, June 1, 1987

Mr. HIRONAO SUZUKI
Leader
The Basic Design Study Team
Japan International Cooperation Agency (JICA)

Hon. MARIO M. TAGUIWALO
Undersecretary of Health &
Chief of Staff

ATTACHMENT

1. The objective of the project is to establish additional facilities within the Research Institute for Tropical Medicine (RITM) for the training of medical and paramedical personnel in infectious disease and tropical medicine research leading to the development of effective disease control strategies.

2. The Project site is to be located within the compound of RITM, Alabang, Muntinlupa, Metro Manila owned by the Department of Health as seen in Annex I.

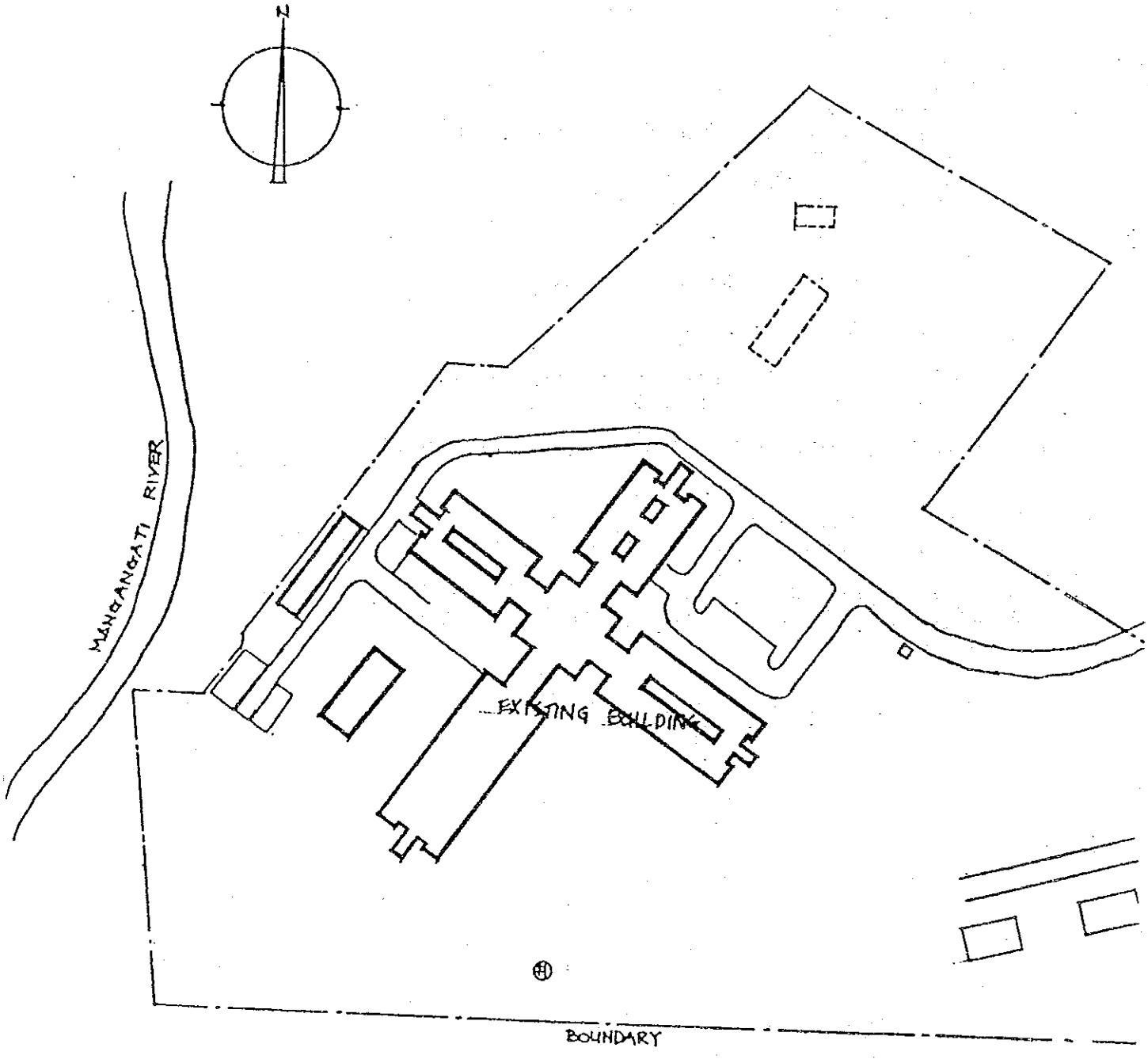
3. The goal of the Project is to facilitate manpower development through regular training courses such as the Third Country Training Programme and other training activities.

4. The Department of health will be responsible for the administration and execution of the Project.

5. The Japanese Study Team will convey to the Government of Japan the desire of the Government of the Republic of the Philippines that the former take necessary measures to cooperate by providing the buildings and other items listed in Annex II within the scope of Japanese economic cooperation programme in grant form.

6. The Philippine side has understood Japan's Grant Aid System as explained by the Team which includes in principle the services of a Japanese Consultant Firm and Japanese Contractor (s) for the implementation of the Project.

7. The Government of the Republic of the Philippines will take the necessary measures listed in Annex III on condition that the Grant Aid would be extended to the Project.



PROJECT SITE

THE REQUEST MADE BY THE GOVERNMENT OF THE REPUBLIC OF THE PHILIPPINES

1. Construction of the Training Center and Building for On-Duty Staff with the following facilities:

   1.1. Building for the Training Center

   * Conference Room
   * Library
   * Lecture Rooms
   * Student Laboratories with preparation rooms
   * Sterilizing Room
   * Dormitory Facilities for Trainees
   * Guest Rooms for Lecturers
   * Management Office
   * Stock Room
   * Other necessary incidental facilities

   1.2. Building for On-Duty Staff

   * Bedrooms for Staff members indispensable due to their activities
   * Other necessary incidental facilities

2. Provision of equipment related to the abovementioned facilities such as:

   * Laboratory Equipment
   * Training Equipment

3. Provision of equipment and materials for existing facilities that are indispensable to the conduct of training activities

ANNEX III

MAJOR UNDERTAKINGS TO BE TAKEN BY THE PHILIPPINE SIDE

1. To secure the site for the Project.

2. To clear, level and reclaim the site prior to the commencement of the construction as needed.

3. To undertake incidental out-door work such as gardening, fencing including gates and exterior lighting in and around the site.

4. To construct the access road to the site prior to the commencement of the construction as needed.

5. To provide facilities for distribution of electricity, telephone and other incidental facilities:

   (1) Electricity distributing line to the site;
   (2) Telephone trunk line to the main distribution panel of the building.

6. To provide general furnitures such as carpets, curtains, tables, chairs and others.

7. To bear commissions to the Japanese foreign exchange bank for the banking services upon the banking Arrangement.

8. To take necessary measures for prompt unloading, tax exemption & customs clearance of the materials and equipment brought in for the Project at the port of disembarkation.

9. To exempt Japanese nationals from custom duties, internal taxes and other fiscal levies which may be imposed in the Republic of the Philippines with respect to the supply of the products and services under the Verified Contracts.

10. To accord Japanese nationals whose services may be required in connection with the supply of products and the services under the Verified Contracts such facilities as may be necessary for their entry into the Philippines and stay therein for the performance of their work.

11. To maintain and use properly and effectively those facilities constructed and equipment purchased under the Grant.

12. To bear all the expenses other than those to be borne by the Grant, necessary for the construction of the facilities as well as for the transportation and the installation of the equipment.

MINUTES OF DISCUSSION ON THE REPORT OF THE BASIC DESIGN STUDY ON THE PROJECT FOR IMPROVEMENT AND EXPANSION OF THE RESEARCH INSTITUTE FOR TROPICAL MEDICINE, DEPARTMENT OF HEALTH, IN THE REPUBLIC OF THE PHILIPPINES

MINUTES OF DISCUSSIONS ON THE REPORT OF THE BASIC DESIGN STUDY ON THE PROJECT FOR IMPROVEMENT AND EXPANSION OF THE RESEARCH INSTITUTE FOR TROPICAL MEDICINE, DEPARTMENT OF HEALTH, IN THE REPUBLIC OF THE PHILIPPINES

At the request of the Government of the Republic of the Philippines for Grant Aid for the Project for Improvement and Expansion of the Research Institute for Tropical Medicine (hereinafter referred to as "The Project"), the Government of Japan had decided to conduct a Basic Design Study on the Project and entrusted the Study to the Japan International Cooperation Agency (JICA). JICA sent a Basic Design Study Team headed by Mr. HIRONAO SUZUKI, Head of the First Basic Design Study Division, Grant Aid Planning and Survey Department, JICA to the Philippines from May 25 to June 14, 1987.

As the result of the survey and discussions, JICA prepared a Draft Final Report on the Study and dispatched the Second Mission headed by Dr. SAKAE INOUE to explain and discuss the Report with the authorities concerned of the Government of the Republic of the Philippines starting from August 24 to August 30, 1987.

Both parties had a series of discussions on the Report and have agreed to recommend to their respective Governments that the major points of understanding reached between them, attached herewith, should be examined towards the realization of the project.

Manila, August 28, 1987

DR. SAKAE INOUE
Leader
The Basic Design Study Team
(Second Mission)
Japan International Cooperation
Agency (JICA)

HON. MARIO M. TAGUIWALO
Undersecretary of Health
& Chief of Staff

ATTACHMENT

1. The Philippine side principally has agreed to the basic design proposed in the Draft Final Report (with minor but appropriate alterations in design, facilities and equipment, mutually agreed upon to be incorporated in the Final Report).

2. The final Report (10 copies in English) on the Project will be submitted to the Philippine side by the end of September, 1987.

3. The Philippine side understood the system of Japan's Grant Aid Programme and confirmed the arrangements to be undertaken by the Government of the Republic of the Philippines for the realization of the Project as agreed upon in the "Minutes of Discussions" dated June 1, 1987.

4. The Government of the Republic of the Philippines will release the necessary budget at the proper time according to the construction schedule.

APPENDIX IV List of the Philippines Officials Concerned

1. Department of Health

Mr. Mario M. Taguiwaro	Under Secretary of Health

2. National Economic & Development Authority

Mrs. Ma Resurreccion	Divison Head, Japanese Affairs

3. Research Institute for Tropical Medicine

Mrs. Margarita M. Galon	Assistant Director

Administrative Division

Mr. Salvador I. Galinato Jr.	Head
Mr. Engr. Oscar Dajao	Head, General Service Dept.

Paramedical Research Divison

Dr. Vicente Romano	Head, Radiology Dept.
Mr. Imelda Q. Villarata	Head, Pharmacy Dept.
Mrs. Nieves Serra	Head, Dietary Dept.
Mrs. Ester Romano	Head, Nursing Dept.

Research & Training Division

Dr. Mediapora C. Saniel	Head
Dr. Xeres Navarro	Head, Clinical Dept.
Dr. Manuel Dayrit	Head, Epidemiology Dept.
Dr. Jose Marie Capellan	Head, Biochemistry Dept.
Dr. Normando Gonzales	Head, Pathology Dept.
Dr. Nelia P. Salazar	Head, Parasitology & Med. Entomology Dept.
Dr. Faustino C. Icatlo Jr.	Head, Experimental Animal Lab. Dept.
Dr. Remigio M. Olveda	Head, Immunology Dept.
Dr. Oferia T. Monzon	Head, Microbiology Dept.

JICA

Dr. Yoshinori Kaneko	Team Leader, Expert from JICA
Mr. Jun Ichinose	Coordinator, Expert from JICA

4. Japanese Embassy

Mr. Kazuhiko Adachi	First Secretary

5. JICA Philippine Office

Mr. Moriya Miyamoto	Resident Representative
Mr. Katsuhiko Oshima	Deputy Resident Representative
Mr. Ytuji Okazaki	Staff

6. World Health Organization

Dr. Naotaka Shinfuku	Regional Advisor, Mental Health and Drug Dependence

7. Food and Drugs Laboratory

Mrs. Catalina C. Sanchez	Director
Mr. Shigeo Iwahara	Team Leader, Export from JICA
Mr. Atsushi Tasaka	Coordinator, Expert from JICA

8. College of Public Health, University of the Philippines

Dr. Edito. G. Garcia	Dean

9. Philippine General Hospital, Manila

Dr. Felipe Estrella	Director

10. San Lazaro Hospital, Manila

Dr. Catherine Ranoa	Director

11. Kindney Institute Quezon city

Dr. Filoteo Alano	Director