

### Ⅲ 現 状 と 問 題 点

#### 1 現 状

本プロジェクトの拠点となるべき、家畜衛生センター（Disease Investigation Center、以下D.I.Cと称す。）は、無償資金協力により、メダン市、及びタンジュンカランの2ヶ所に設置されていることになり、夫々、工事に着手された。完成予定は夫々、9月、及び10月であるが、Explanatory Notesの規定に従って、52年10月から専門家3名をメダんに、アドバイザー1名をジャカルタの中央政府（畜産総局）に派遣し、協力事業は開始されている。専門家は現在、メダン市既在する北スマトラ州の畜産局（Laboratorium Diagnostic）において、両D.I.Cの設立促進とプロジェクト・エリア（現時点では、主として北スマトラ地区）の家畜伝染病の調査、及びインドネシア職員に対する家畜衛生に関する基礎知識、及び技術指導を行っている。

現時点までにおける主な実施事項は以下の通りである。

##### i) 現地ラボラトリー職員に対するプロジェクトR/Dの内容説明会

本プロジェクトの目的は、我々日本側専門家の指導協力によりインドネシア国の技術者が技術的に向上し、早急に家畜衛生体制を確立させることにある。そこで、我々は同国の技術者に対し、その重要性を熟知徹底させる為にR/Dについて、詳細に亘る説明及び検討会を開いた。

##### ii) スマトラ島における畜産事情及び家畜衛生概況の調査

本プロジェクトの管轄地域である北スマトラ州、アッチュ州、ランボン州を対象に、その地域内における畜産及び家畜衛生の現況を把握するために、本年度は先ず、北スマトラ州メダン市（D.I.C設立場所）およびその近郊における主たる養鶏場、養豚場、牧場等を視察し、今後の家畜防疫対策の基礎資料とするために、家畜の飼育状況及び家畜衛生概況について調査を行った。

##### iii) 北スマトラ州管内における畜産関係及び家畜衛生施設の巡回視察

北スマトラ州畜産局長と同行して同畜産局管内を数日間に亘って、家畜衛生関係事務所、種畜牧場等を巡視した。

また、現在インドネシア国において、北スマトラ州管内のKabpatan 12、Kotamatya 5計17の地区に対し、D I C - Bタイプ1ヶ所、Cタイプ2ヶ所の設置を計画している。そのD.I.C設立の候補地の選定についても併せ調査した。

#### IV) 家畜伝染病の調査

管内飼育家畜（牛、水牛、豚、羊、山羊、鶏、犬等）を対象に州地方家畜衛生担当技術者より送付された患畜の材料について、また必要に応じては我々専門家自ら現場に出動し直接調査及び採取した材料について、当ラボラトリー内で病性鑑定術式の技術的指導を行った。

以下、本年10月から12月の間における当ラボラトリー内で行われた病性鑑定成績中、特筆すべき事項は次の通りである。

㉑ 各家畜における重要疾病が依然として発生していること、即ち、牛では出血性敗血症、トリパノゾーマ病、アナプラズマ病、豚の出血性敗血症、犬では狂犬病、鶏ではニューカッスル病、マレック病、マイコプラズマ病、コクシジウム等が主たる伝染性疾病として診断された。

#### ㉒ 人畜共通伝染病（狂犬病）の発生状況

1976年から1977年の2ヶ年間の当ラボラトリーで行われた検査成績から最近狂犬病の診断陽性例が異常に増加した。又一方で同じく本年度にかけて人間の狂犬病による咬傷被害が急激に増加し、人間の伝染病中狂犬病（恐水病）が例年になく増大した。かかる事態を重視したインドネシア国は医療機関においてその防疫対策に乗り出した旨が現地新聞（Waspada）によって報道された。

#### ㉓ 鶏マイコプラズマ病の発生

ニューカッスル病発生の合併症として鶏マイコプラズマ病の集団発生がみられた。現在まで当ラボラトリーに於ける臨床的診断での発生報告はあるが、血清反応による陽性摘発例はこれがはじめてであり、今回北スマトラにおいても本症の存在が確認された。

#### ㉔ 牛トリパノゾーマ病の発生

従来北スマトラ管内では10年前に、トバ湖内の島に発生したとの記録があるだけで中央政府からも牛トリパノゾーマ病の管内の調査を依頼されていたのであるが、今回この島より移入された水牛の70余頭1群の中から本症の発生例が血液塗抹材料により確認された

(10年)前 Padang Sidrupan 100頭中 5例 中 2例⊕

1977年 今 P.Sianter 70頭中 7例 中 3例⊕

#### V) ラボラトリー内における技術者の指導

当ラボラトリーに勤務する獣医師、及び助手等の技術者に対し、実験室内作業の基本的技術について指導を行った。

蒸溜水の作業法，器具機材の滅菌洗浄法，顕微鏡の操作法，細菌培養術式，動物解剖術式等、これらの技術的訓練と併行して実験動物舎内の整備、実験動物飼育管理法についても指導を行った。

#### VD 輸入牛の健康状態調査

現在、西ドイツの援助によるD I C管内（西スマトラ・パダン州）にオーストラリアより約1,000頭の肉用牛が導入されているが、今回我々は、インドネシア政府の要請により、現地（パダン州ブキティンギ地区）において、これらの導入牛のその後の発育および健康状態について調査を行った。

## 2 問 題 点

D I C完成までは既存の施設を活用せざるを得ないが、実験室の構造上の不備、器具器材の不足が著しく、プロジェクトの進捗に大幅な遅れを来している。又、インドネシア側職員（カウンターパート）が現時点では組織的に配置されていないため、一環した指導方針がたてられず、効率的なカウンターパートの養成が出来ない。D I C完成を待つまでもなく、早急な人事面での組織体制作りが望まれる。

以上のことから、D I Cの一日も早い完成を期待する一方、既存の施設を活用するために、器具器材の早期入手、適切な人員配置計画の早期実現が当面の問題である。

THE RECORD OF DISCUSSIONS BETWEEN THE JAPANESE AGRICULTURAL SURVEY TEAM AND THE AUTHORITIES CONCERNED OF THE GOVERNMENT OF INDONESIA CONCERNING TECHNICAL COOPERATION PROJECT ON ANIMAL HEALTH IMPROVEMENT PROGRAMME (ATA-133).

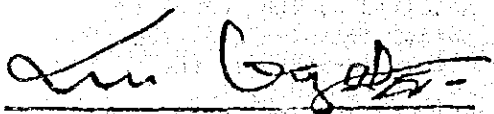
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In pursuance of the preliminary survey conducted in June-July 1976, the Japanese Agricultural Survey Team organized by the Japan International Cooperation Agency and headed by Dr. MUNEO OGATA, visited Indonesia from June 21 to July 7, 1977, in order to work out the details of the concrete technical cooperation for the Technical Cooperation Project on Animal Health Improvement Programme between Japan and Indonesia (ATA-133).

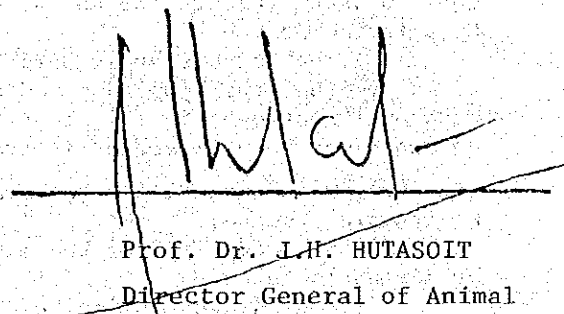
During their stay in Indonesia, the Team exchanged views and had a series of discussions with the Indonesian authorities concerned in respect of the desirable measures to be taken by both Governments for the successful implementation of the Project.

As a result of the discussions, the Team and the Indonesian authorities concerned agreed to recommend to their respective Governments the matters referred to in the attached Record of Discussions.

Jakarta, July 7, 1977.



Dr. MUNEO OGATA  
Head of the Japanese Agricultural  
Survey Team  
Japan International Cooperation  
Agency



Prof. Dr. J.H. HUTASOIT  
Director General of Animal  
Husbandry  
Ministry of Agriculture

THE RECORD OF DISCUSSIONS BETWEEN THE JAPANESE AGRICULTURAL SURVEY TEAM AND THE AUTHORITIES CONCERNED OF THE GOVERNMENT OF INDONESIA CONCERNING TECHNICAL COOPERATION PROJECT ON ANIMAL HEALTH IMPROVEMENT PROGRAMME (ATA-133).

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- I. (1) For the purposes of promoting the development of veterinary technique and animal health situation, and thus of contributing to livestock development in Indonesia, both Governments will cooperate with each other in implementing the Technical Cooperation Project on Animal Health Improvement Programme (hereinafter referred to as "the Project") based on the Master Plan specified in Annex I.
- (2) The Project will be implemented in accordance with an operational work plan to be formulated annually by the Joint Committee referred to in IX.
- II. (1) In accordance with laws and regulations in force in Japan, the Japanese authorities concerned will take necessary measures to provide at their own expense the services of the Japanese experts as listed in Annex II through the normal procedures under the Colombo Plan Technical Cooperation Scheme.
- (2) The Japanese experts referred to in (1) above and their families will be granted in Indonesia the privileges, exemptions and benefits as listed in Annex III and will be granted privileges, exemptions and benefits no less favourable than those granted to the experts of third countries working in Indonesia under the Colombo Plan Technical Cooperation Scheme.
- III. (1) In accordance with laws and regulations in force in Japan, the Japanese authorities concerned will take necessary measures to provide at their own expense such equipment, machinery, implements, vehicles, tools, spare parts and other materials required for the implementation of the Project as listed in Annex IV through the normal procedures under the Colombo Plan Technical Cooperation Scheme.
- (2) The articles referred to in (1) above will become the property of the Government of Indonesia upon being delivered c.i.f. to the Indonesian authorities concerned at the ports of disembarkation, and will be utilized exclusively for the implementation of the Project in consultation with the Japanese Team Leader referred to in Annex II.
- IV. (1) In accordance with laws and regulations in force in Japan, the Japanese authorities concerned will take necessary measures to receive the Indonesian personnel engaged in the Project for technical training or study tour in Japan through the normal procedures under the Colombo Plan Technical Cooperation Scheme.
- (2) The Indonesian authorities concerned will take necessary measures to ensure that the knowledge and experience acquired by the Indonesian personnel mentioned in (1) above through technical training and study tour in Japan may be utilized effectively for the implementation of the Project.
- V. The Indonesian authorities concerned will take necessary measures to provide at its own expense:
- (1) the services of the Indonesian counterparts and other personnel as listed in Annex V;
- (2) buildings and incidental facilities as listed in Annex VI;
- (3) supply or replacement of equipment, machinery, implements, vehicles, tools, spare parts and any other materials necessary for the implementation of the Project other than those provided by the Japanese authorities concerned under III (1);
- (4) suitably furnished housing accommodations for the Japanese experts and their families.

- VI. The Indonesian authorities concerned will take necessary measures to meet:
- (1) customs duties, internal taxes and any other charges, if any, imposed in Indonesia in respect of the articles referred to in III (1);
  - (2) expenses necessary for transportation of the articles referred to in III (1) within Indonesia as well as for installation, operation and maintenance thereof;
  - (3) all running expenses necessary for the implementation of the Project;
  - (4) expenses for transportation facilities and internal travel in Indonesia of the Japanese experts on duty.
- VII. The Indonesian authorities concerned will be responsible for the administration and implementation of the Project, and the Japanese experts will provide primarily technical guidance and advice for the implementation of the Project.
- VIII. The Indonesian authorities concerned shall undertake to bear claims, if any arises, against the Japanese experts engaged in the Project resulting from, occurring in the course of, or otherwise connected with, the discharge of their official functions in Indonesia, except for those claims arising from willful misconduct or gross negligence of the Japanese experts.
- IX. There will be close consultation between Japanese experts and officials concerned of the Government of Indonesia for the effective implementation of the Project. For this purpose, a Joint Committee will be established as specified in Annex VII. The Joint Committee will meet at least once a year.
- X. Both Government authorities concerned will consult each other in respect of any matter that may arise from or in connection with this Record of Discussions.
- XI. The period of the technical cooperation under this Record of Discussions will be three (3) years from the date of signature and may be extended by mutual agreement between the authorities concerned of both Governments.

#### Annex I

##### Master Plan of the Project

##### Activities under the Project

The following activities will be conducted in the Provinces of Aceh, North Sumatra, Bengkulu, South Sumatra and Lampung with the Disease Investigation Centres (hereinafter referred to as "the DIC") to be established in Medan, North Sumatra and Tanjung Karang, Lampung (ATA-133) as the cores, in collaboration with Central and Local Government authorities, and other Institutions in charge of administration and/or research on animal industry and health.

(1) Survey and diagnosis of animal diseases of major importance in the regions and investigation related to the said activities, to be conducted mainly in the veterinary fields of microbiology, pathology, parasitology and epidemiology;

(2) establishment of the channel of sample collection from the field, storage and distribution of veterinary biologics, extension of animal health knowledge and participation in the animal disease control scheme to be carried out by the Indonesian authorities concerned in the regions;

(3) technical training in survey, diagnosis, investigation and control of animal diseases for technicians engaged in animal health activities;

(4) trial production of veterinary biologics for locally important animal infectious diseases.

#### Annex II

##### List of Japanese Experts

<u>Category</u>	<u>Field</u>	<u>Organization</u>
1. Team Leader		
2. Experts	Veterinary microbiology	the DIC in Medan
	Veterinary pathology	"
	Epidemiology	"
	Parasitology	"
	Veterinary microbiology	the DIC in Tanjung Karang

##### Notes:

1. JICA will select a representative for Japanese experts in each Centre and nominate one of such representatives as a Team Leader.
2. Short-term experts of the above-mentioned fields or others may be dispatched, when necessity arises.
3. Each Japanese expert will be assigned to one of the said DICs. However, he may provide his services at another DIC if necessary.
4. JICA: Japan International Cooperation Agency.

#### Annex III

##### Privileges, Exemptions and Benefits

1. Exemption from income tax and charges of any kind imposed on or in connection with the living allowances remitted from abroad;
2. Exemption from import and export duties and any other charges imposed in respect of personal and household effects which may be brought into Indonesia from abroad;
3. Free local medical services and facilities to the Japanese experts and their families, in accordance with the regulation applied to Indonesian Government officials.

#### Annex IV

##### Articles to be provided by the Government of Japan

1. Equipment, machinery, implements, tools and spare parts for survey, diagnosis, investigation, control of animal diseases, and trial production of veterinary biologics;
2. Veterinary biologics and medicines including disinfectants for survey, diagnosis, investigation, control of animal diseases, and treatment;
3. Teaching materials including audio-visual aids;
4. Vehicles;
5. Other necessary equipment, machinery, tools and materials to be mutually agreed upon.

## Annex V

### Indonesian Counterpart Officials and other Personnel

<u>Category</u>	<u>Field</u>	<u>Organization</u>
1. Project Director		Directorate General of Animal Husbandry, Department of Agriculture
2. Counterpart Officials:	Director of DIC	Each DIC in Medan and Tanjung Karang
	Veterinary Bacteriology	"
	Veterinary Virology	"
	Veterinary Pathology	"
	Veterinary Parasitology	"
	Epidemiology	"
3. Clerical and service employees		
4. Labourers		

## Annex VI

### Buildings and Facilities

1. The DIC in Medan;
  - (1) Main building (including laboratories of virology, bacteriology, veterinary biologics, parasitology, pathology, clinical inspection and a conference hall, administration offices, and others).
  - (2) Animal sheds
  - (3) Autopsy room
  - (4) Dormitory
  - (5) Garage
  - (6) Other necessary buildings and facilities
2. The DIC in Tanjung Karang;
  - (1) Main building (including laboratories of virology, bacteriology, parasitology, pathology, clinical inspection and a meeting room, administration offices, and others).
  - (2) Animal sheds
  - (3) Autopsy room
  - (4) Garage
  - (5) Other necessary buildings and facilities

Note: The existing buildings and facilities of the Laboratorium Diagnostic, No. 6 Jalan Supeno, Medan, North Sumatra Province will be utilized for the work before completion of the DICs.

## Annex VII

### Composition of the Joint Committee

1. Chairman (Director General of Animal Husbandry, Department of Agriculture)



2. Members

<u>Japanese side</u>	<u>Indonesian side</u>
(1) Team Leader	(1) Project Director
(2) Expert(s) designated by the Team Leader	(2) Directors of DIC Medan, Tanjung Karang
(3) Representative of JICA	(3) Representative(s) of Government authorities concerned

Note: An official of the Embassy of Japan and the person(s) designated by the Embassy of Japan may attend the meeting of the Joint Committee as observer.

EXPLANATORY NOTES FOR THE TECHNICAL COOPERATION PROJECT  
ON ANIMAL HEALTH IMPROVEMENT PROGRAMME (ATA-133)

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The plan for Technical Cooperation Project on Animal Health Improvement Programme was realized under the Record of Discussions (the RD) mutually signed by the representatives of both the parties; Prof. Dr. J.H. Hutasoit, Director General of Animal Husbandry, Department of Agriculture and Dr. Muneo Ogata, Head of the Japanese Agricultural Survey Team, Japan International Cooperation Agency (JICA).

The followings are detailed items discussed for effective implementation of the Project.

1. Operational Plan of Work:

1-1. General Information; The Technical Cooperation will be performed, in principal, in accordance with the provisions of the RD.

1-2. Technical activities under the Project; Main activities will be 1) diagnosis and survey of animal diseases of major importance in the Project areas, 2) investigation related to the said activities, 3) technical training for technicians engaged in animal health activities, 4) supporting animal disease control by means of necessary guidance, planning and providing medicines etc. 5) investigation of veterinary biologics including trial production.

On account of availability of the facilities at the DIC in Medan, the following activities would be necessary to be taken for the first phase (before the completion of the DIC facilities);

- a. Establishment of the channel of sample collection from the field
- b. Laboratory diagnostic services
  - Isolation and identification of pathogens, e.g. Haemorrhagic septicaemia, Blood parasites, Newcastle disease
  - Microscopic examinations of Internal parasites, e.g. Fascioliasis, Coccidiosis, Ascariasis
  - Serological tests, e.g. Newcastle disease (HI), Brucellosis (Agg. CF.), Tuberculosis (Intradermal)
  - Fluorescent antibody technique, e.g. Rabies, Newcastle disease, Bovine respiratory disease complex
- c. Survey and investigation
  - Survey and investigation on disease prevalence at selected farms
- d. Technical guidance

As far as the DIC in Tanjung Karang is concerned, the preparatory work will be gradually carried out to pave the way for the main DIC activities.

1-3. The Plan of Operation; The plan of Operation for this Project will be formulated by the Joint Committee which be held annually. However, the plan for the first phase of the Project will be realized in accordance with each item of the Notes.

1-4. Counterpart Officials; Indonesian veterinary officials to each DIC in Medan and Tanjung Karang will be at least 7 (seven) persons in number as a future plan (Director and heads of various Departments; bacteriology, virology, parasitology, pathology, epidemiology and technical training).

1-5. The Joint Committee; Project Director specified in Annex V and VII of the RD is the Director of Animal Health, Directorate General of Animal Health, Department of Agriculture.

1-6. The DIC Network; The activities of both the DICs in Medan and Tanjung Karang are directed by Director of Animal Health on behalf of Director General of Animal Husbandry, Department of Agriculture as the case of other DICs in the country.

As a future plan, B and C type DICs will be established in each Province of the Project Areas; one B type and two C types in Aceh, one B type and two C types in North Sumatera, one B type in Bengkulu, one B type and two C types in South Sumatera and two C types in Lampung.

## 2. Japanese Expertise:

2-1. Technical Coordinator; A Technical Coordinator (an Adviser) was strongly desired to be attached to Directorate of Animal Health for conducting the smooth implementation of the Project and the coordination among Directorate of Animal Health, the DICs in Medan and Tanjung Karang, and for other technical matters.

Due to difficulty in Japan of assignment of him as a long-term expert for the time being, this field was not recorded in the RD. One or two, however, is needed to be assigned to the Directorate in Jakarta for about 3 (three) months respectively from the beginning of August of 1977 on request of the Government of Indonesia through the Colombo Plan Technical Cooperation Scheme. He will assist the Directorate in planning the DIC activities and the DIC establishment from a veterinary point of view.

2-2. Short-Term Experts; One or two short-term experts will be available to be sent for one to three months for special professional fields each year.

2-3. Laboratory Technicians; Assignment of Japanese laboratory technicians was requested to do the preparatory work for diagnosis and investigation. Such expertises in veterinary field are not available in Japan.

However, Japanese veterinarians assigned to the DIC will train technicians such a job.

2-4. Veterinary Parasitology; The field of veterinary parasitology was put on the list of Japanese experts considering the importance of this expertise. Due to difficulty in finding out such expertise in Japan, experts of other fields may cover the field of parasitology.

2-5. Assignment of Japanese Experts; One of the Japanese experts having assigned to Medan since January 1977 for the preparatory work of the DIC services will extend his term for another 2 (two) months.

3 (three) Japanese experts (Microbiology, Poultry Disease Diagnosis and Serology, respectively) will be assigned to Medan to work together with Indonesian counterparts at the existing Laboratory for the first phase of the Project.

The duration of their assignment will be 2 (two) years for the time being, starting at the beginning of September 1977. Requests for these experts will be made under the Colombo Plan at the earliest convenience.

Furthermore, Japanese veterinary experts to each DIC in Medan and Tanjung Karang will be 4 (four) and 2 (two) persons respectively, when the normal functions of the DIC are operational. As the completion of two DICs is scheduled by May-June 1978, necessary arrangements for assignment will be made in parallel with the progress of grant-aid Project.

## 3. Provision of equipments, machinery, materials etc.

Supply of equipments and materials necessary for the Project from Japan will be arranged, on request from the Government of Indonesia, within a budgetary limitation in each year of the cooperation period under the normal procedures of the Colombo Plan. A list of them which are estimated 30-40 million yen was discussed for the first year of the Project (1977/78). The application form (A4) will be submitted without delay.

## 4. Technical Training:

There will be at least 14 (fourteen) counterpart officials for the Project. The number of officials to be granted fellowship was not decided because of the single fiscal year budgetary appropriation system in Japan. It was desired for the Project to give an opportunity to Indonesian counterpart officials to get the higher degrees; MS or PhD. This kind of cooperation was

explained difficult in Japan for the time being and not longer than 6 (six) months will be available to the Project for practical training in diagnosis and investigation etc. For the first year of the Project, requests of granting fellowship will be made for Chairman and Project Director of the Joint Committee for observation tour; one for about one week and the other for about 3 (three) weeks, and for 2 (two) counterpart officials for the individual course for 6 (six) months in spite of the definite capacity of one for the Project in 1977/78.

Besides the observation tour and individual training course, the group training course on animal health will be also considered for the Project.

5. Travel Expenses for Japanese Experts:

Travel expenses for Japanese experts on duty will be covered in principal by the Indonesian side within a budgetary limitation.

Due consideration will be given to allocate the sufficient budgetary appropriation.

Expenses necessary for air transportation will be supported by the Indonesian side, while those for surface travel for the service areas shared as much as possible by the Japanese side together with facilities for transportation from the DIC.

6. Housing Accomodations for the Japanese Experts:

A part of the dormitory of the DIC in Medan will be offered to Japanese experts upon their requests. When Japanese experts inhabit private housings, outside of the DIC, expenses for accomodations will be provided under the JICA standard, while the arrangements of such housings will be assisted by the local authorities concerned.

7. Medical cares for Japanese Experts:

In addition to medical cares applicable under the standard for Indonesian officials, Japanese experts will be insured by the JICA health insurance system.

8. ATA-133:

ATA-133, Bappenas Code Number, was added to the RD to make it clear that this Technical Cooperation Project was requested by the Government of Indonesia, and it does not mean as the Grant-aid cooperation.

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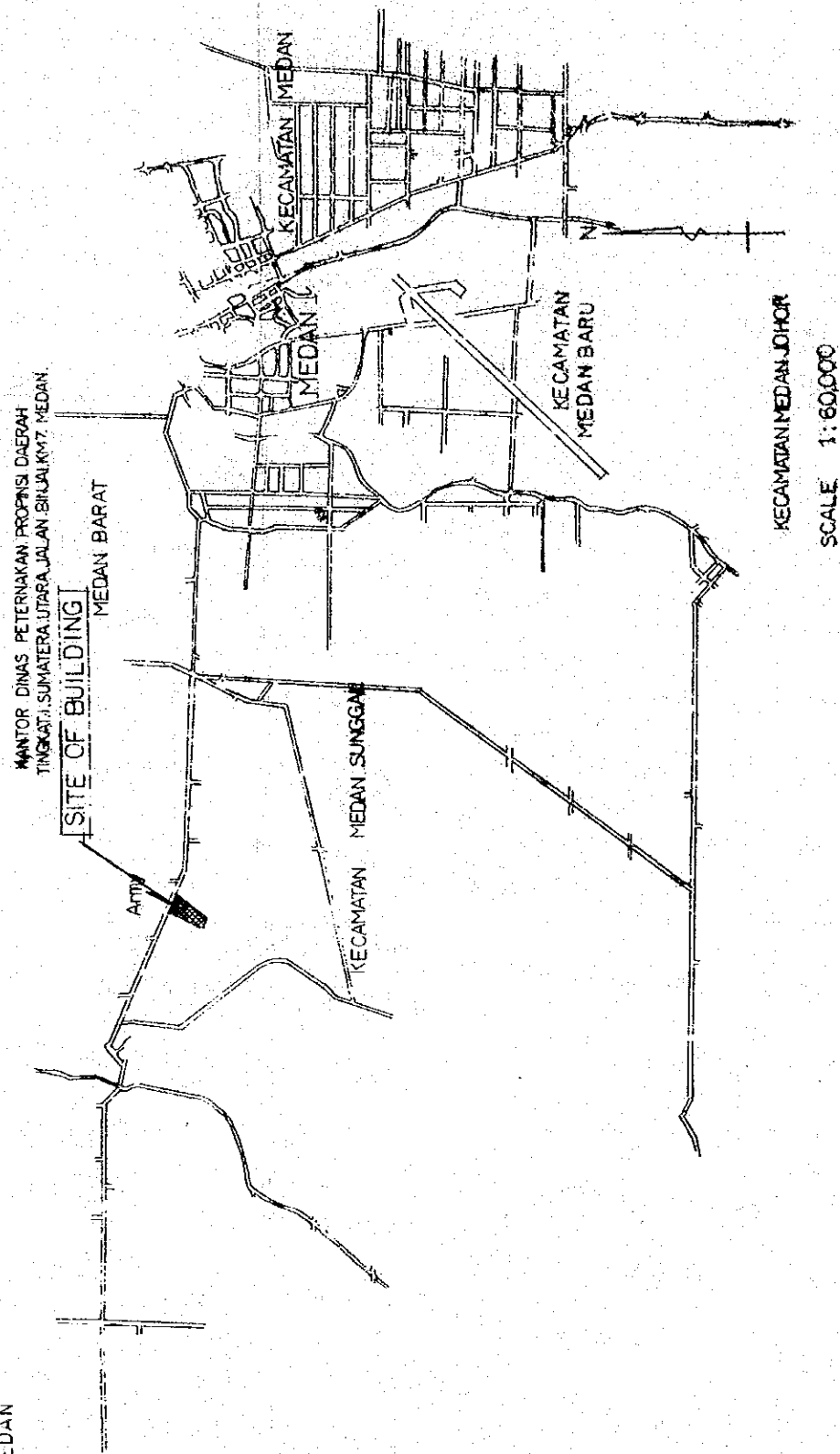
Jakarta  
July 7th, 1977

OUTLINE OF EXTERIOR FINISHING

NAME OF BUILDING	EXTERIOR WALLS	DOORWAYS	WINDOWS	ROOFS	OTHERS
CENTER	FACE BRICK	ALUMINUM	ALUMINUM	BUILT UP ROOF	
DORMITORY	FACE BRICK	WOOD	W/FP HARD WOOD	D°	
ANIMAL SHED 1	WOOD W/FP	WOOD	HARD WOOD	CORRUGATED ASBESTOS CEMENT SLATE	
ANIMAL SHED 2	MORTAR SPRAYED -ON ACRYLE TILE	STEEL & WOOD W/FP	HARD WOOD	BUILT UP ROOF	
GARAGE	ASBESTOS CEMENT SLATE	W/FP		CORRUGATED ASBESTOS CEMENT SLATE	
PUMP ROOM	MORTAR SPRAYED -ON ACRYLE TILE	WOOD	HARD WOOD	D°	

- ANIMAL SHED 2 : SIDE WALL : MORTAR -SPRAYED-ON ACRYLE TILE
- CENTER DORMITORY ANIMAL SHED 2 : CONCRETE PENT ROOF & COLUMN - SPRAYED-ON ACRYLE TILE  
: APPLIED STYRO FORM INSULATION (t=25) UNDER CONCRETE ROOF SLABS  
: OPEN CORRIDOR FLOOR : COLOR CRETE
- DORMITORY OTHERS
- BALCONIES (FLOOR) STL TRWLD WATERPROOF MORTAR FINISH
- LADDERS STEEL W/FP
- RAIN LEADER DOWN SPOUTS :PVC PIPE (Ø150)
- ROOF DARINS :CAST IRON W/BAKED COAL-TAR FINISH
- BUILDING NAME PLATE INSIDE 500 x 500 STAINLESS STEEL
- OUTSIDE 800 x 400 STAINLESS STEEL SETTING BASE CONCRETE
- FLAG FOLE STEEL FLAG- POLE (H= 5M) x 2 POLES W/FP
- SETTING BASE STL TRWLD MOLTAR FINISH
- WATER ELEVATED TANK STEEL W/FP

MAP OF MEDAN




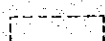

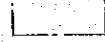


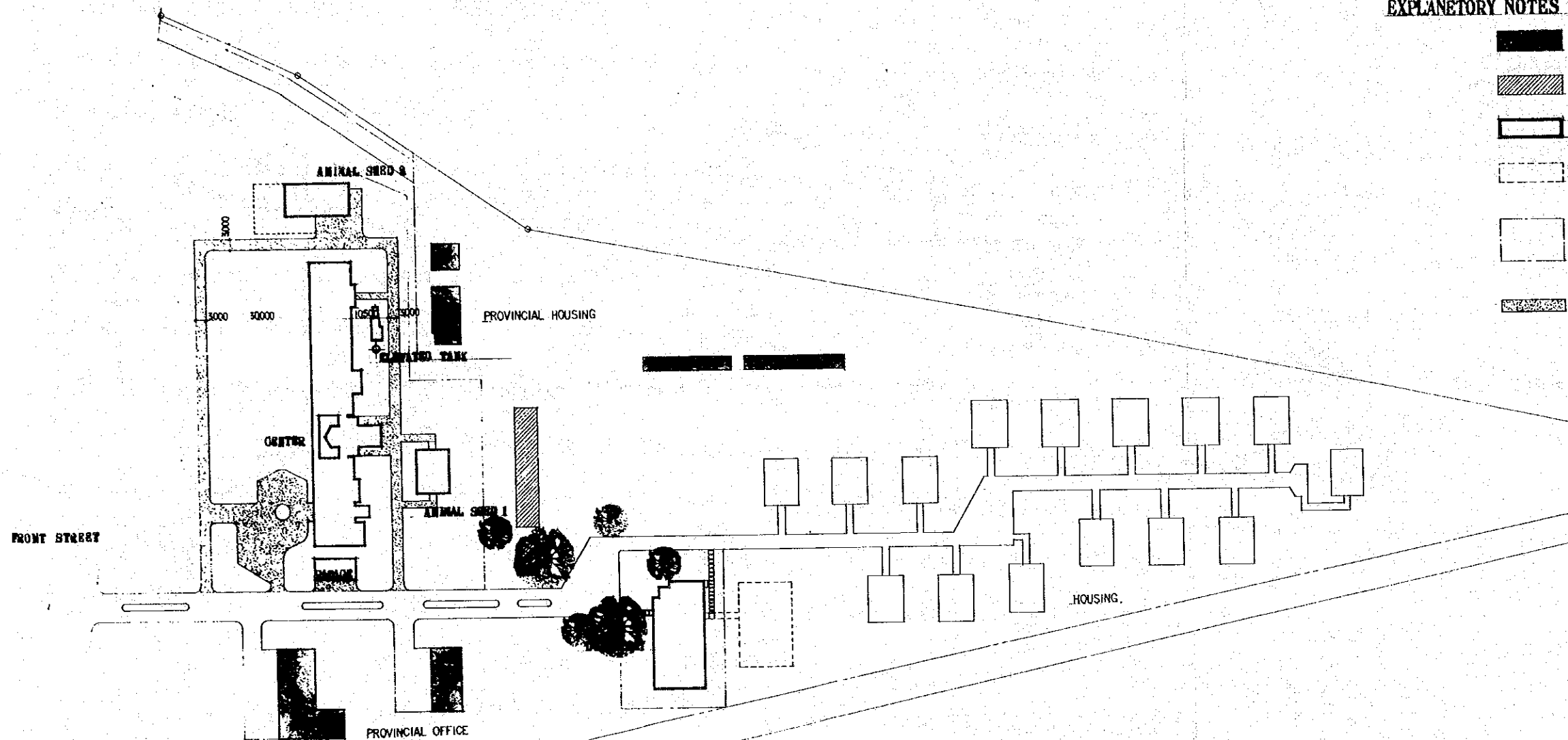
KECAMATAN MEDAN, JOHOR  
SCALE 1:60,000

AUG. 15, 1978

PLOT PLAN  
SCALE 1:600

EXPLANATORY NOTES

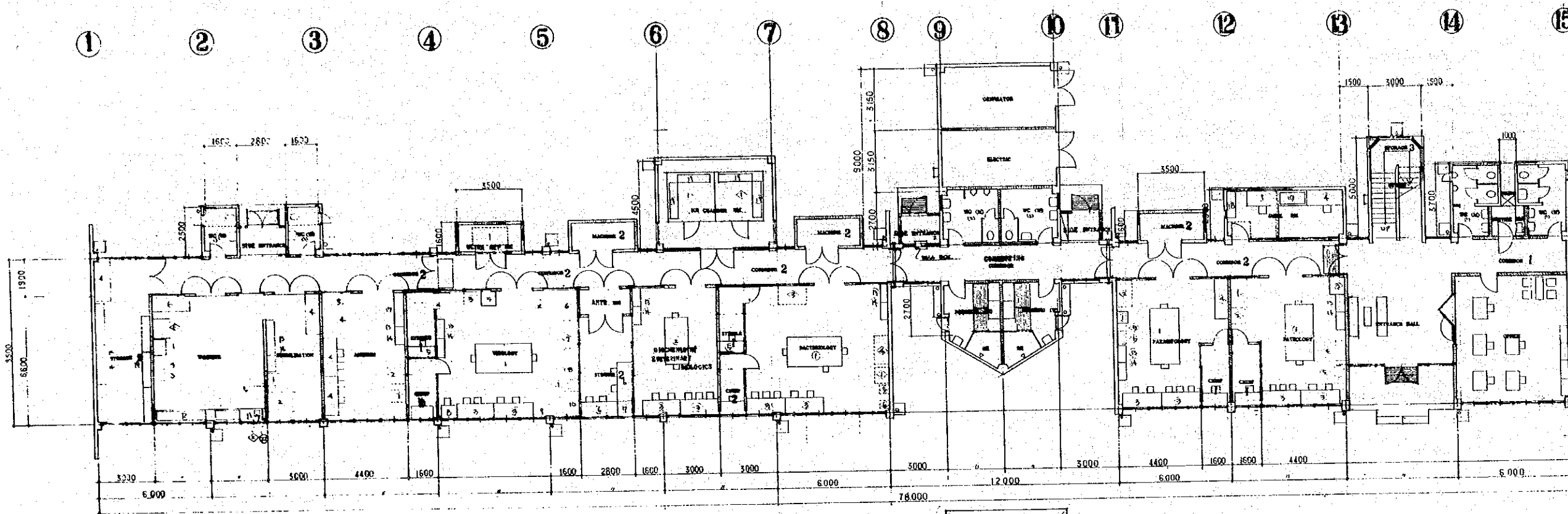
-  REMAIN
-  DESTRUCTION (NOT INCLUDE)
-  CONSTRUCTION
-  FUTURE
-  CONSTRUCTION AREA
-  ASPHALT PAVEMENT



PLOT PLAN

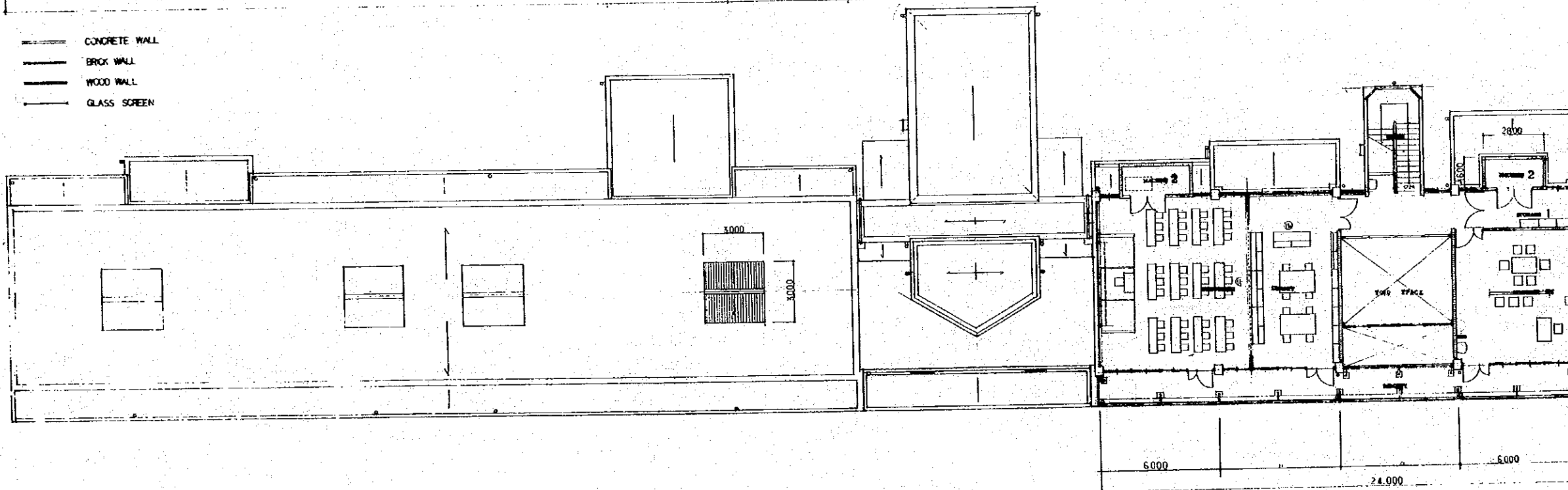
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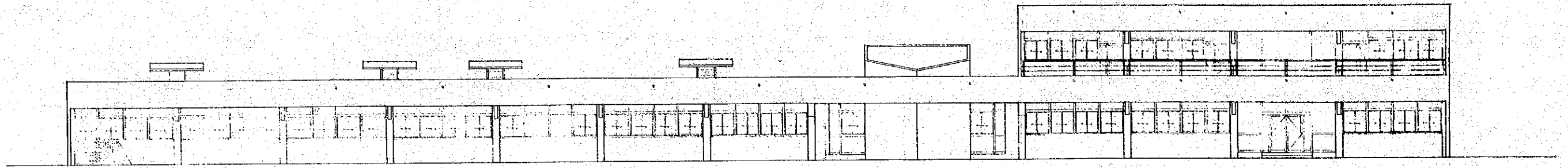




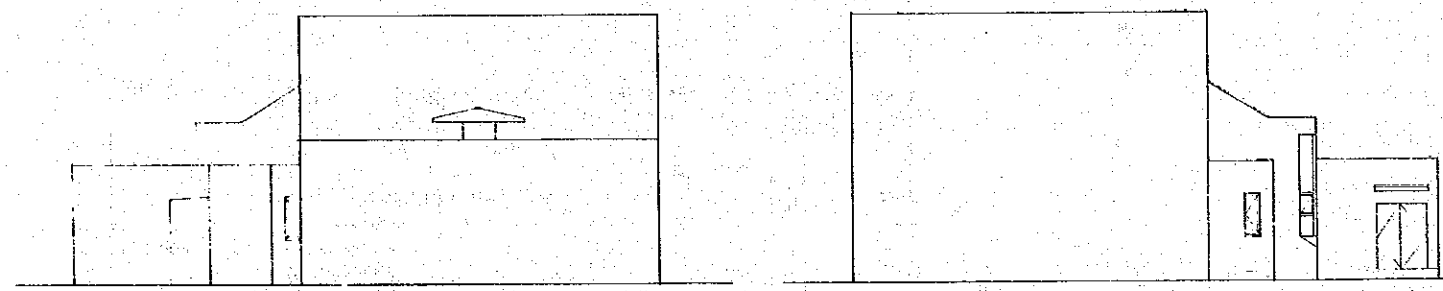
EXPLANATORY NOTES

- CONCRETE WALL
- BRICK WALL
- WOOD WALL
- GLASS SCREEN



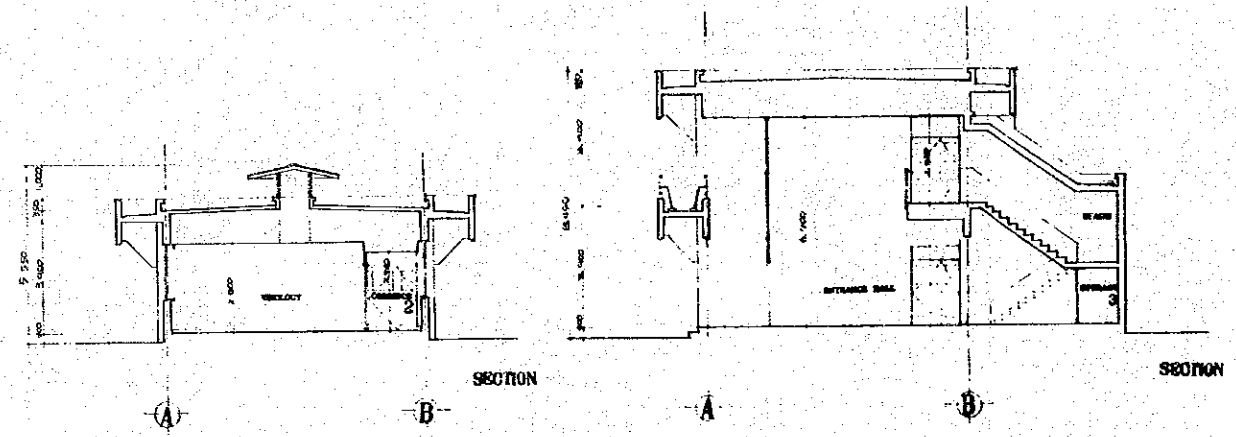


N - ELEVATION



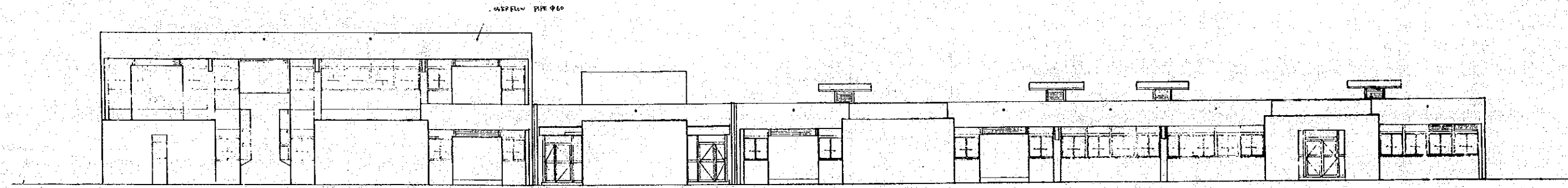
E - ELEVATION

W - ELEVATION



SECTION A-B

SECTION A-D



S - ELEVATION



LABORATORY INSTRUMENT, ○: INCLUDE THIS CONSTRUCTION, △: NOT INCLUDE, NO-MARK: NOT INCLUDE.

ROOM NAME	NO.	DESCRIPTION	MODEL	DIMENSIONS	QTY	NOTE
BACTERIOLOGY	1	REFRIGERATOR	R-4ECTD		1	
	2	FREEZER	ENF-16		1	
	3	INCUBATOR	F-100		1	
	4	CENTRIFUGE	CD-52SR	395 495 385	1	
	5	AUTOCCLAVE	S-90N	560 457 850	1	
	6					
VIROLOGY	1	FREEZE DRYER	F-D-3	534 562 572	1	
	2	AUTOCCLAVE	S-90M	360 457 850	1	
	3					
	4					
	5	REFRIGERATOR	SR-352FA	654 661 1687	1	
	6	FREEZER	SCR-550	1545 782 930	1	
	7	INCUBATOR	H-10-C	1390 700 1540	1	
	8	ROTARY DRUM	R-12-T	1590 700 1540	1	
	9	COLORS INCUBATOR	WJ-11C	690 600 1130	1	
	10	REFRIGERATED CENTRIFUGE	M-251	1260 750 1030	1	
STERILIZATION	1	STERILIZER	DE-80		1	
	2	AUTOCCLAVE	SD-30-MO	675 445 1060	1	
WASHING	1	WATER DISTILLING APPARATUS	AA-715	850 650 1750	1	
	2	PIPET WASHER	AB-2		1	
	3	DRYER	0088		1	
	4	DRY OVEN	DS-42	590 570 790	1	
MEDIUM	1	STERILIZER	GM-8E	585 530 735	1	
	2	AUTOCCLAVE	S-90N	360 457 850	1	
PARASITROLOGY	1	REFRIGERATOR	SR-352FA	654 661 1687	1	
	2	FREEZER	SCR-550	1545 782 930	1	
	3	CENTRIFUGE	CD-50SR	395 495 385	1	
PATHOLOGY	1	AUTOCCLAVE	S-90N	360 457 850	1	
	2	FREEZER	SCR-550	1545 782 930	1	
	3	CRYOSTAT	SM-3B	730 805 1100	1	
	4	REFRIGERATOR	SR-352FA	654 661 1687	1	
ULTRA RFT RM	1	REFRIGERATOR	H-10-C	1390 700 1540	1	
	2	AUTOCCLAVE	S-90N	360 457 850	1	
ICE CHAMBER RM	1	ICE CHAMBER	FLA-100	5000 2700 2650	1	
	2	GENERATOR	FA-3	1700 1850 1800	1	
E-CH RM	1	FIRE EXTINGUISHER		540 800 400	1	
	2	PURIFICATION APPARATUS			1	

LABORATORY FURNITURE, INCLUDE THIS CONSTRUCTION, APPROPRIATE A FIXED PRICE IN JAPAN FOR FOLLOWING FURNITURE'S COST. (IT SHALL BE PRODUCT IN INDONESIA.)

NO.	DESCRIPTION	MODEL	DIMENSIONS	QTY	NOTE
1	CENTER TABLE	GB-300C	3000 1500 1860	4	
2		GB-240C	2400 1200 800	1	
3	SIDE TABLE	UZ-200W	2000 750 800	10	
4	WORKING TABLE	KM-2A-3	2000 750 800	6	
5		ST	1200 600	4	
6		ST	2000	5	SPECIAL MADE
7		ST	600	1	
8	BALANCE TABLE	B-90L	900	1	
9			1500	1	
10	S. J. H. R.	US-120	1200 750 800	1	
11		-270	2700 750 800	1	SPECIAL MADE
12		-300	3000 1200 800	1	
13	STORAGE CABINET	MC-124	880 400 860	14	
14		-124.6	880	14	
15		-125	1760 260	3	
16		-125.6	880	11	
17	UNIT SHELF	MR-356	900 460 1810	1	
18		-656	1820	7	
19	WORKING TABLE	ST	2000 150 800	1	
20	CABINET	FF-251	900 360 1700	1	
21	DESKER STAND	DS-A	600 180 700	1	P.V.C.

OFFICE FURNITURE, INCLUDE THIS CONSTRUCTION, APPROPRIATE A FIXED PRICE IN JAPAN FOR FOLLOWING FURNITURE'S COST. (IT SHALL BE PRODUCT IN INDONESIA.)

ROOM NAME	DESCRIPTION	MODEL	DIMENSIONS	QTY	NOTE
ENTRANCE HALL	RECEPTION SET	OH 5045 (TENDO)		2	
		8352B (OKAMURA)		1	
		SE-311 (KOTOBUKI)		2	
OFFICE	DESK(S)	3873 DE (OKAMURA)		5	
	OFFICE CHAIR	221822 ( " )		5	
	STORAGE CABINET	4602 FK ( " )		4	
	RECEPTION SET	83052A (OKAMURA) x 4 839522 ( " ) x 1		4	
DRAWING RM.	RECEPTION SET	RM 570, RM 570 x 2, RM 264T (TENDO)		1	
	SLIDING DOOR CABINET	4642 ZB (OKAMURA) x 3		3	
DIRECTOR RM.	DESK(S)	ST-1503 (KOTOBUKI)		1	
	OFFICE CHAIR	2102 ZB (OKAMURA)		4	
	SLIDING DOOR CABINET	4642 ZB ( " ) x 3		3	
	DRESSING LOCKER	4571 BA ( " )		1	
	SCREEN	1002 (YOKOGAWA)		2	
STORAGE	STORAGE LOCKER	4642 FK (OKAMURA)		3	
SERVICE RM.	KITCHEN SET	B-65-1200 (SUJAWA), B-4400		1	
	REFRIGERATOR	SR-14R (SANYO)		1	
	GAS RANGE	R-11M (RINNAI)		1	
DRESSING RM. (M/W)	DRESSING LOCKER	4576 B2 (OKAMURA)		4	
SIDE ENTRANCE (M)	BOOT CUPBOARD		1300 x 1200 x 750	1	
AUDITORIUM	LECTURE TABLE	4312 ZB (OKAMURA)		1	
	PLATFORM		1200 x 1600 x 150	3	PLATEFORM 1-4
	SCREEN		4000 x 1800	1	SCREEN 2000 x 1800
	FOLDING TABLE	8185A2 (OKAMURA)		12	
	OFFICE CHAIR	2153 BC ( " )		37	
LIBRARY	READING TABLE	ST-3412 (KOTOBUKI)	1000 x 1800	2	SPECIAL MADE
	OFFICE CHAIR	FRP-2226 FC ( " )		8	
	BOOK RACK(S)	8006 ZR (OKAMURA)		12	
LABORATORIES	MAGAZINE RACK	6801 ZB ( " )		2	
	TELEPHONE TABLE	4316 ZB ( " )		1	
	DRESSING LOCKER	4571 BA ( " )		1	
DORMITORY	OFFICE CHAIR	2258A2 x 38, 2254A2 x 4 (OKAMURA)		1	
	DESK(S)	3873 DE (OKAMURA)		4	
	WASHING MACHINE	SM-6212 (SANYO)		2	
	REFRIGERATOR	SR-924FK (SANYO) x 1		1	REFRIGERATOR - NEW (SANYO) x 1
KITCHEN SET	B-65-1200, B-65-1800, B-65-1050, B-4400			1	(SANYO WAVE) x 1
	H090AB x 9, B-07 ZB x 16 (OKAMURA)			1	
	2581 ZB x 2, 2551 ZB x 2 ( " )			1	
	27-200 (SANYO)			1	
	4316 ZB (OKAMURA)			1	
	LAVENDER-04 (France Bed)			11	
	DESK, ST-1503 (KOTOBUKI), CHAIR, RM-570 (TENDO)			11	
	DRESSING LOCKER	4571 B3 (OKAMURA)		11	
	LIGHTING STAND	20-1002 (TENDO)		11	

OUTLINE OF EXTERIOR FINISHING

NAME OF BUILDING	EXTERIOR WALLS	DOORWAYS	WINDOWS	ROOFS	OTHERS
CENTER	FACE BRICK	ALUMINIUM	ALUMINIUM	BUILT UP ROOF	
ANIMAL SHED	MORTAR SPRAYED-ON ACRYLE TILE	STEEL & WOOD W/FP	HARD WOOD	D <sup>o</sup>	
GALAGE	ASBESTOS CEMENT SLATE	W/FF		CORRUGATED ASBESTOS CEMENT SLATE	
PUMP ROOM	MORTAR SPRAYED-ON ACRYLE TILE	WOOD W/FP	HARD WOOD	D <sup>o</sup>	

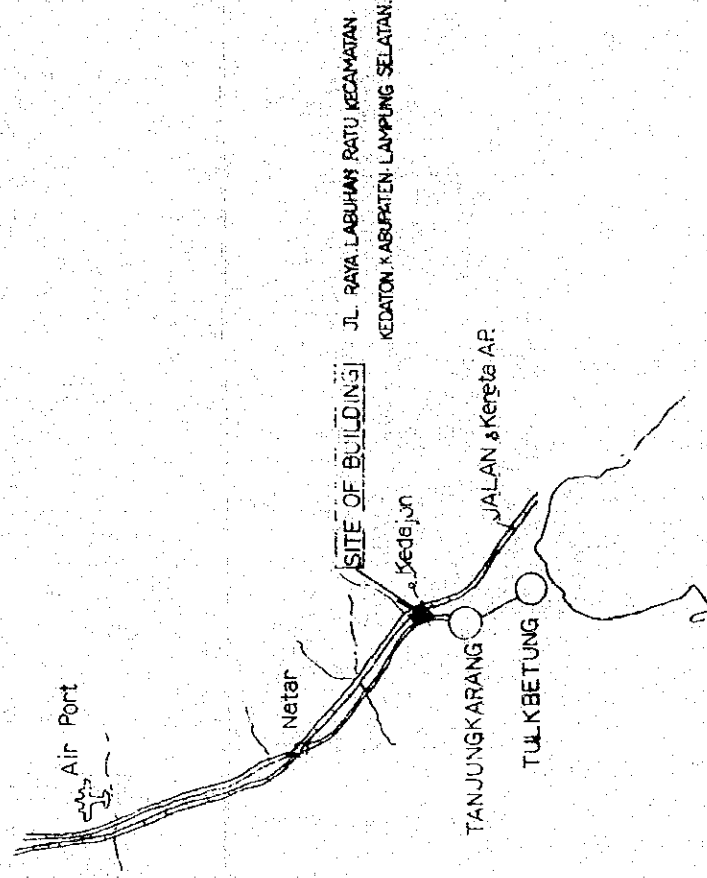
• CENTER , ANIMAL SHED : CONCRETE PENT ROOF & COLUMN - SPRAYED-ON ACRYLIC TILE  
 : APPLIED STYRO FORM INSULATION (t=25) UNDER CONCRETE ROOF SLABS

• ANIMAL SHED SIDE WALL: MORTAR SPRAYED-ON ACRYLE TILE

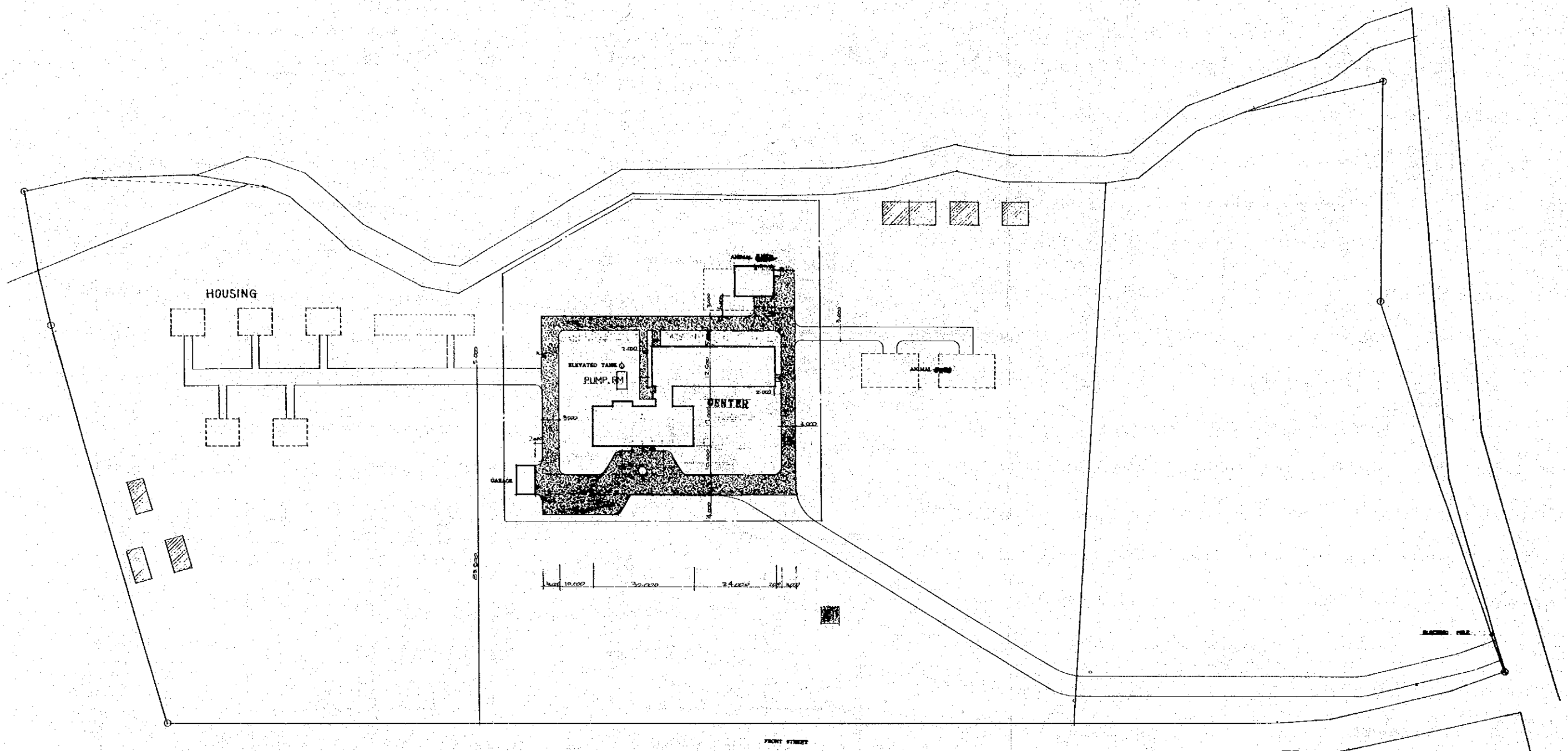
OTHERS

LADDERS	STEEL W/FP
RAIN LEADER	DOWN SPOUTS : PVC PIPE (φ150.)
	ROOF DRAINS : CAST IRON W/BAKED COAL-TAR FINISH
BUILDING NAME PLAT	INSIDE 500 x 500 STAINLESS STEEL
	OUTSIDE 800 x 400 STAINLESS STEEL, SETTING BASE CONCRETE
FLAG POLE	STEEL FLAG-POLE (H=5M) X 2 POLES W/FP
	SETTING BASE STL IRWLD MOLTAR FINISH
WATER ELEVATED TANK	STEEL W/FP

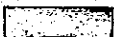


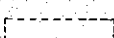
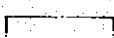

MAP OF TANJUNGPANG



JL. RAYA LABUHAN RATA KEAMATAN  
 KEDATON KABUPATEN LAMPUNG SELATAN.

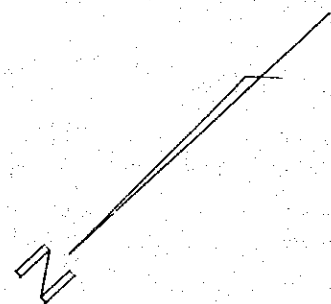


**EXPLANATORY NOTES**

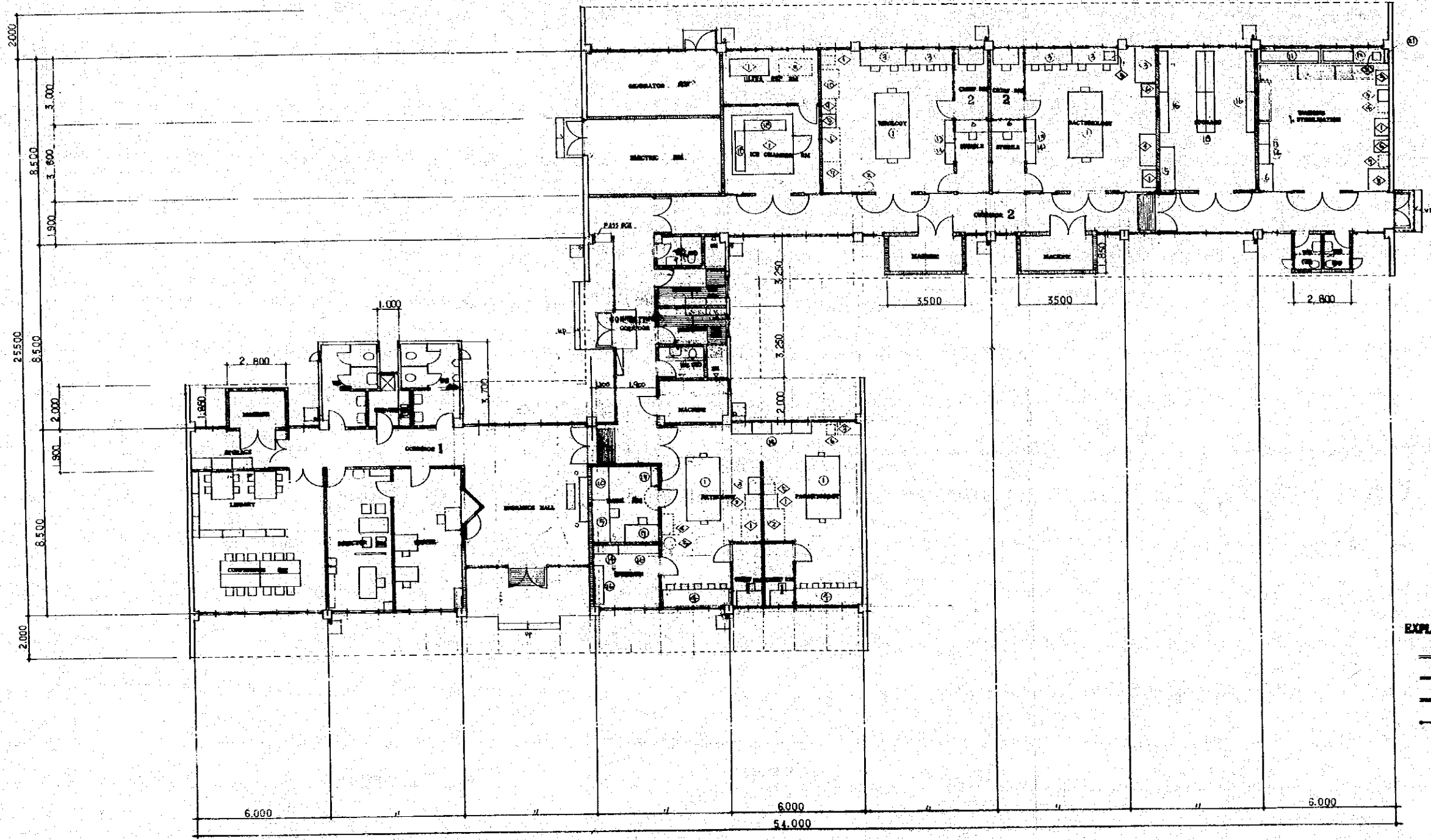
-  **REMAIN**
-  **DESTRUCTION (NOT INCLUDE)**
-  **CONSTRUCTION**
-  **FUTURE**
-  **CONSTRUCTION AREA**
-  **ASPHALT PAVEMENT**

**PLOT PLAN**

SCALE 1/600



①      ②      ③      ④      ⑤      ⑥      ⑦      ⑧      ⑨      ⑩



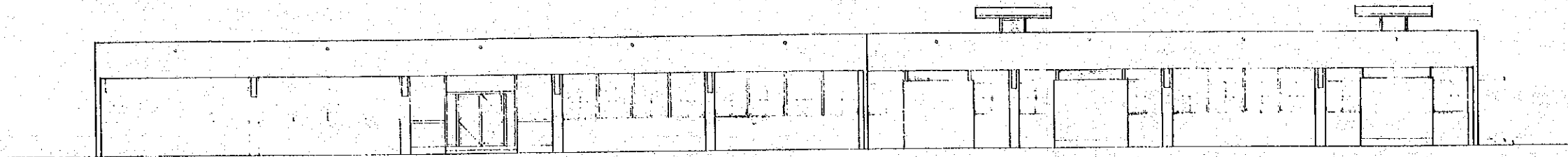
①

②

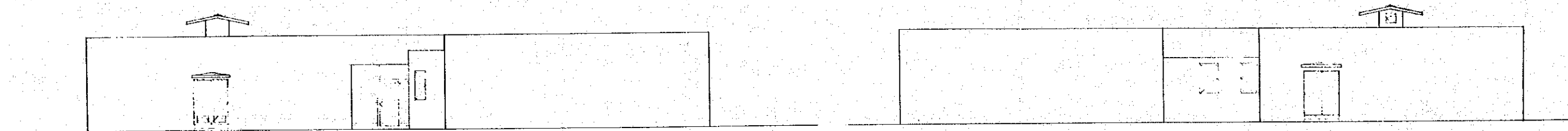
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④

- EXPLANATORY NOTES**
- CONCRETE WALL
  - BRICK WALL
  - WOOD WALL
  - GLASS SCREEN

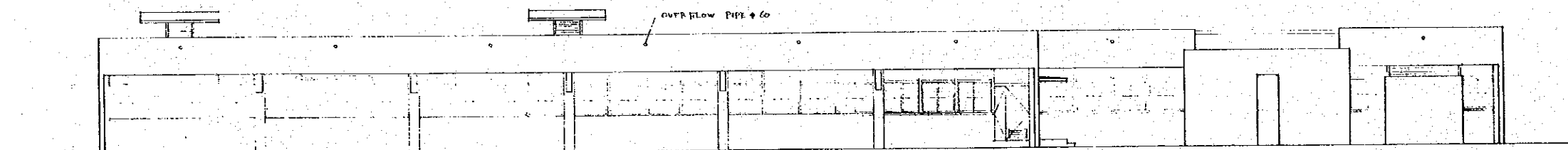


N-ELEVATION

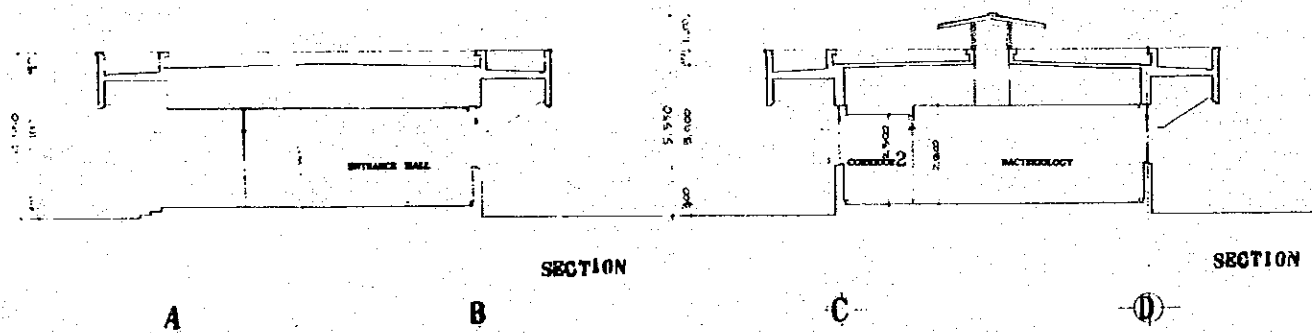


E - ELEVATION

W - ELEVATION



S-ELEVATION



SECTION

SECTION

A

B

C

D

LABORATORY INSTRUMENT ○: INCLUDE THIS CONSTRUCTION, △: NOT INCLUDE, NO-MARK: NOT INCLUDE.

ROOM NAME	NO	DESCRIPTION	MODEL	DIMENSIONS	QTY	NOTE	ROOM NAME	NO	DESCRIPTION	MODEL	DIMENSIONS	QTY	NOTE	
WASHING	1	WATER DISTILLING APPARATUS	WA-115	850 650 1750	1	①	VIROLOGY	1	FREEZE DRYER	F-D-3	334 582 572	1	①	
	2	PIPET WASHER	AW-31	550 450 1050	1	①		2	AUTOCLAVE	S-90N	360 457 850	1	①	
	3	DRYER	DPA-21	400	1	①		3						
	4	DRY OVEN	DS-42	550 370 790	1	①		4						
	5	WASHING MACHINE	SW-5800A	590 584 960	1	①		5	REFRIGERATOR	SR-352FA	645 661 1687	1	①	
	6	STERILIZER	GM-8E	585 530 735	1	①		6	FREEZER	SCR-550	1545 782 930	1	①	
	7	AUTOCLAVE MONODEC DEWIZING	SC-20-ND	675 445 1080	1	①		7	INCUBATOR	H-10-C	1890 780 1540	1	①	
	8		MA-3	1000 900 1900	1	①		8						
PARASITOROLOGY	1	REFRIGERATOR	SR-352FA	645 661 1687	1	①	ULTRA REF. RM	9	CO <sub>2</sub> GAS INCUBATOR REFRIGERATED CENTRIFUGE	WJ-11C	650 600 1130	1	①	
	2	FREEZER	SCR-550	1545 782 930	1	①		10	ULTRALOW TEMPREF. FREEZER	MDF-330-AT	1860 925 945	1	①	
	3	INCUBATOR	H-10-C	1000 900 700	1	①	ICE CHAMBER RM	11	FREEZER	SCR-550	1545 782 930	1	①	
	4							12	ICE CHAMBER	IC-100	2700 2700 2650	1	①	
	5	CENTRIFUGE	CD-50SR	395 495 385	1	①		ANIMAL SHED	13	INCINERATOR	FLA-100	1700 1830 1800	1	①
	6	AUTOCLAVE	S-90N	360 457 850	1	①			14	GENERATOR RM	GENERATOR			
PATHOLOGY	1	FREEZER	SCR-550	1545 782 930	1	①	CONNECTING CORRIDOR	PASS BOX	PA-3	640 890 400	1	①		
	2	CRYOSTAT	GM-38	730 805 1100	1	①	EACH RM.	FIRE EXTINGUISHER				②		
	3	REFRIGERATOR	SR-352FA	645 661 1687	1	①	PUMP RM.	PURIFICATION APPARATUS				①		
BACTERIOLOGY	1	REFRIGERATOR	SR-352FA	645 661 1687	1	①								
	2	FREEZER	SCR-550	1545 782 930	1	①								
	3	INCUBATOR	H-10-C	1890 780 1540	1	①								
	4	CENTRIFUGE	CD-50SR	395 495 385	1	①								
	5	AUTOCLAVE	S-90N	360 457 850	1	①								
	6													

LABORATORY FURNITURE

INCLUDE THIS CONSTRUCTION. APPROPRIATE A FIXED PRICE IN JAPAN FOR FOLLOWING FURNITURE'S COST. (IT SHALL BE PRODUCT IN INDONESIA.)

NO	DESCRIPTION	MODEL	DIMENSIONS	QTY	NOTE
1	CENTER TABLE	CB-3000	3000 1800 1250 800	4	
2					
3	SIDE TABLE	UZ-200W	2000 750	4	
4		UZ-300W	3000	2	
5	WORKING TABLE	JM-2A H1	2000	2	
6		ST	1200 600	5	
7	BALANCE TABLE	D	1500	1	
8					
9					
10	SINK	USB-120	800 750 800	1	
11		US-270	2000 600	1	
12		US-300	3000 600	1	
13	STORAGE CABINET	MC-124	880 700 880	5	
14		MC-124G		11	
15		MC-125	1760	4	
16		MC-125G		8	
17	UNIT SHELF	HR-356	900 460 1810	1	
18		HR-656	1820	4	
19	WORKING TABLE	ST	2000 750 800	1	
20	CABINET	FF-251	900 350 1700	1	
21	DEAKER STAND	OS-5A	600 180 700	1	P.V.C.

OFFICE FURNITURE

INCLUDE THIS CONSTRUCTION. APPROPRIATE A FIXED PRICE IN JAPAN FOR FOLLOWING FURNITURE'S COST. (IT SHALL BE PRODUCT IN INDONESIA.)

ROOM NAME	DESCRIPTION	MODEL	DIMENSIONS	QTY	NAME
ENTRANCE HALL	RECEPTION SET	LM5072 (TENDO)		2	
		8153TD (OHAMURA)		1	
OFFICE	DESK(S)	3813 DE (OHAMURA)		9	
	OFFICE CHAIR	2218 ZC ( )		3	
	STORAGE CABINET	4602 FK		1	
DIRECTOR RM.	DESK (D)	ST-1803 (KOHBUKI)		1	
	OFFICE CHAIR	2102 ZC (OHAMURA)		3	
	SLIDING DOOR CAB.	4642 ZC ( )		2	
	DRESSING LOCKER	4571 DAC ( )		1	
	SCREEN	9102 (KOSHIDA)		1	
STORAGE	STORAGE LOCKER	4602 FK (OHAMURA)		3	
SERVICE RM.	KITCHEN SET	B-1A-100		1	
	REFRIGERATOR	BR-122R (SANYO)		1	
	GAS RANGE	R-12M (SANYO)		1	
DRESSING RM.	DRESSING LOCKER	4571 DAC (OHAMURA)		4	
SIDE ENTRANCE	BOOT CUPBOARD	1200x1000x350		1	
LABORATORIES	OFFICE CHAIR	2258 AY (OHAMURA)		28	
	DESK	2256 AY ( )		4	
LIBRARY	READING TABLE	1000x1200 (KOHBUKI)		2	
	CHAIR	FFP-3046E ( )		8	
	BOOK RACK (S)	6816 AS (OHAMURA)		7	
CONFERENCE RM	CONFERENCE TABLE	2462ZA (OHAMURA)		4	
	CHAIR	2218 ZC ( )		12	
	TELEPHONE TABLE	4716 ZC ( )		1	

