

2. 基本設計概要説明調査



2. 基本設計概要説明調査

(1) 調査団の構成

基本設計概要報告調査（平成9年6月9日～6月20日）

氏名	担当分野	所属
滝本 勝	団長・総括	国際協力事業団 国際協力専門員
吉武 克弘	技術参与	厚生省 国立国際医療センター 国際医療協力局
秋山 稔	技術参与	厚生省 国立国際医療センター 国際医療協力局 (平成9年6月15日～6月19日)
成田 映太	計画管理	国際協力事業団 無償資金協力調査部 基本設計調査第一課
金川 一郎	業務主任	株式会社 日本設計
浜田 知直	建築計画	株式会社 日本設計
石川 修三	設備計画	株式会社 日本設計
與座 卓	機材計画-1/ 運営維持管理計画	株式会社 日本設計
平島 照久	通 訳	株式会社 日本設計

(2) 現地調査日程

1) 基本設計概要報告調査 (平成9年6月9日～6月20日)

日順	月日・曜日	・ ・
1.	6月9日(月)	・ 成田発香港経由ハノイ着
2.	6月10日(火)	・ JICA ヴィエトナム事務所 表敬訪問 ・ 日本大使館 表敬訪問 ・ MOH (保健省) 表敬訪問 ・ MPI (計画投資省) 表敬訪問
3.	6月11日(水)	・ バックマイ病院と第一回協議
4.	6月12日(木)	・ MOH (保健省) 建設局と協議 ・ MOH (保健省) 医療局と協議 ・ ハノイ市消防署と協議 ・ バックマイ病院と第二回協議
5.	6月13日(金)	・ バックマイ病院と第三回協議 ・ 保健大臣 表敬訪問
6.	6月14日(土)	・ ベトドク病院視察 ・ ローカルコンサルタント打合せ ・ 収集資料の整理
7.	6月15日(日)	・ 団内協議 ・ 収集資料の整理 ・ 秋山団員 ホーチミン発ハノイ着
8.	6月16日(月)	・ バックマイ病院と第四回協議 ・ ハノイ市水道公社と協議 ・ ハノイ市電力公社と協議 ・ セミナー開催
9.	6月17日(火)	・ バックマイ病院と第五回協議 ・ 協議議事録第一回協議
10.	6月18日(水)	・ 協議議事録第二回協議 ・ バックマイ病院と第六回協議
11.	6月19日(木)	・ MOH (保健省) にて協議議事録に署名 ・ 日本大使館へ報告 ・ JICA ヴィエトナム事務所へ報告 ・ 秋山団員 ハノイ発ホーチミン着
12.	6月20日(金)	・ ハノイ発香港経由成田着

(3) 相手国関係者リスト

1) ヴィエトナム国政府関係者

・ Ministry of Planning and Investment (計画投資省)

Dr.Do Xuan Mao, Director, Labour Culture & Social Affairs Dept.

Mr.Tran Tuan Anh, Senior Expert, Foreign Economic Relations Dept.

Mr.Nguyen Trung Dung, Senior Expert, Foreign Economic Relations Dept.

・ Ministry of Health (保健省)

Prof.Do Nguyen Phuong, Minister

Dr.Trinh Bang Hop, Deputy Director, International Cooperation Dept.

Dr.Tran Thi Giang Huong, International Cooperation Dept.

Eng.Nguyen Xuan Binh, Director, ME and Construction Dept.

Eng.Duong Van Tinh, Deputy Director, ME and Construction Dept.

Eng.Ho Duc Bien, Expert, ME and Construction Dept.

Eng.Nguyen Thu Anh, Expert, ME and Construction Dept.

Dr.Tran Thu Thuy, Director, Therapy Dept.

Dr.Nguyen Nhu Hy, Deputy Director, Planning Dept.

Ms.Tran Khanh Ha, Planning Dept.

Eng.Le Ngoc Thach, Deputy Director, Financial Dept.

Eng.Nguyen Thi Thuan, Expert, Financial Dept.

Ms.Bui Tuyet Nhung, Expert, Financial Dept.

・ Bach Mai Hospital (バックマイ病院)

Prof.Tran Quy, Director

Dr.Tran Thi Thinh, Vice Director

Dr.Ngo Toan Dinh, Vice Director

Prof.Tran Van Chal, Head of General Planning Div.

Dr.Nguyen Thi Nga, Vice Head of General Planning Div.

Dr. Phan Sy An, Head of Nuclear Medicine Div.

Eng.Nguyen Nhu Thuc, Head of Financial Div.

Eng.Bui Xuan Vinh, Head of Medical Equipment Div.

Eng.Dang Ngoc Dinh, Medical Equipment Div.

Eng.Do Trong Tai, Medical Equipment Div.

Eng.Pham Manh Hung, Construction Div.

Eng.Pham Quoc Hung, Construction Div.

Eng.Duong Thi Thuy, Construction Div.

Ms.Nguyen Linh Ho, Interpreter, General Planning Div.

• Viet Doc Hospital (ベトドク病院)

Dr.Nguyen Ngoc Lam, Vice Director

Dr.Nguyen Manh Nham, Head,Technical Bureau and International Cooperation

• THIKECO (ローカルコンサルタント)

Eng.Nguyen Duc Dat, General Director

Eng.Phan Trong Giang, Deputy General Director

Eng.Iran Van Dzung, Assistant General Director

Eng.Trinh Quang Dzung, General Manager

Ms.Nguyen Thi Hoa, Project Analysis Dept.

• Fire Prevention and Fighting Department,Hanoi (ハノイ市消防署)

Eng.Vu Dinh Hien, Chief,Fire Prevention and Fighting Dept.

• Hanoi Water Business Company (ハノイ市水道公社)

Ms.Nguyen Xuan Tho, Chief,Technical Dept.

• Power Company of Hanoi (ハノイ市電力公社)

Eng.Nguyen Xuan Thanh, Vice Director,Technical Dept.

2) 日本政府関係者

• 日本大使館

井田 光 則 二等書記官

伊藤 康 行 二等書記官

• JICA ヴィエトナム事務所

等々力 勝 所長

辻野 博 司 所員

(4) 協議議事録

MINUTES OF DISCUSSIONS

BASIC DESIGN STUDY
ON
THE PROJECT FOR THE IMPROVEMENT OF BACH MAI HOSPITAL
IN
SOCIALIST REPUBLIC OF VIETNAM
(CONSULTATION ON DRAFT REPORT)

In February 1997, the Japan International Cooperation Agency (JICA) dispatched the Basic Design Study Team on the Project for the Improvement of BACH MAI Hospital in Socialist Republic of Vietnam (hereinafter referred to as "the Project") to Socialist Republic of Vietnam and has prepared the draft report of the study through discussion, field survey, and technical examination of the results in Japan.


In order to explain and to consult the official concerned the Government of Socialist Republic of Vietnam (hereinafter referred to as "the GOV") on the components of the draft report, JICA sent to Vietnam a study team (hereinafter referred to as "the Team"), which is headed by Masaru TAKIMOTO, Development Specialist, JICA, and is scheduled to stay in the country from June 10 to 19, 1997.

As a result of discussions, both parties have confirmed the main items described on the attached sheets.

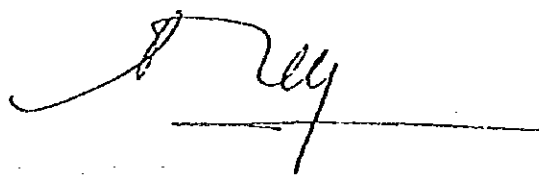
Hanoi, June 19, 1997



Mr. Masaru TAKIMOTO
Leader,
Draft Report Explanation Team
JICA



M.D. TRINH BANG HOP
for Director General,
Department of International Cooperation
Ministry of Health,
Socialist Republic of Vietnam



Prof. TRAN QUY
Director of BACH MAI Hospital

ATTACHMENT

1. COMPONENTS OF DRAFT REPORT

The GOV has agreed and accepted in principle the components of the draft report proposed by the Team.

2. OBJECTIVE

The objective of the Project is to improve medical functions and services of BACH MAI Hospital and its educational function as a teaching hospital. The Team stated that the Government of Japan would contribute to attain the objective of the Project by constructing facility of BACH MAI Hospital and procurement of medical equipment as shown in the draft report on condition that the Grant Aid by the Government of Japan is extended to the Project.

3. ITEMS REQUESTED BY THE GOV

The items requested by the GOV listed in ANNEX-1 shall be re-examined in Japan and referred to on finalizing the Basic Design Study Report.

4. JAPAN'S GRANT AID SYSTEM

(1) The GOV has understood the system of Japan's Grant Aid clarified by the Team as described in ANNEX-2.

(2) The GOV shall take the necessary measures described in ANNEX-3 for smooth implementation of the Project on condition that the Grant Aid Assistance by the Government of Japan is extended to the Project.

5. SITE CLEARANCE

(1) The GOV has agreed to move the existing facilities locating in the site to the other place and implement site clearance including the demolition and relocation of the existing cables, pipes, and other obstructions, especially the drainage pipes within the site by the end of March, 1998. The site area is specified in ANNEX-4.

(2) The GOV has agreed to submit monitoring reports on the site clearance to JICA office in Vietnam monthly from August, 1997 by the form as ANNEX-5.

6. INTERNAL PROCEDURES BY THE GOV

- (1) The GOV has agreed to complete the internal procedures, especially the final approval by "the Office of the Government" and inform JICA office in Vietnam of its approval by August 15, 1997.
- (2) The Team stated it would be difficult to implement the Project if the Project would not be approved by "the Office of the Government" by August 15, 1997.
- (3) The GOV stated that the responsible department for these procedures is the Department of Medical Equipment and Construction in cooperation with other relevant departments in Ministry of Health.

7. INPUT BY THE GOV

The GOV has understood that, in addition to input by Japan under Grant Aid, other activities are necessary to attain the objective of the Project (shown in ANNEX-6)

- (1) Improvement in Medical Services
- (2) Improvement in Hospital Management
- (3) Improvement in Central Function
- (4) Improvement in Collaboration / Cooperation with Other Medical Institutes

8. ORGANIZATION OF "THE PROJECT OFFICE"

- (1) The GOV has agreed to organize "the Project Office", which takes the responsibility for implementing internal reform of BACH MAI Hospital, etc., in accordance with the basic concept "Centralization of Function" of the Project.
- (2) "The Project Office" will be defined and function as not only a working group for the above mentioned reform but also a counter-part team of Japanese-Side in implementing the Project.
- (3) The members of "the Project Office" shall consist of person from BACH MAI Hospital and the following departments.

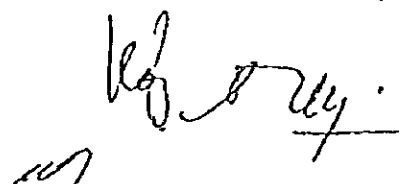
- 1) the Department of Medical Equipment and Construction, Ministry of Health
- 2) the Department of Planning, Ministry of Health
- 3) the Department of International Cooperation, Ministry of Health
- 4) the Department of Finance, Ministry of Health
- 5) the Department of Therapy, Ministry of Health

9. MONITORING AND EVALUATION OF THE PROJECT

The GOV has agreed to implement a baseline survey on indicators as described in ANNEX-7 by the end of July, 1997 for monitoring and evaluating of the Project.

10. OTHERS

- (1) The GOV has agreed to secure and allocate the adequate budget for the execution of the Project.
- (2) The GOV has agreed to secure and allocate the enough budget to operate and maintain properly and effectively the facility and the equipment of the Project.
- (3) The GOV stated that technical cooperation was necessary to improve medical functions and services in BACH MAI Hospital. The Team stated that the technical cooperation was a scheme other than the Grant Aid and that the GOV was able to submit newly the request for technical cooperation to the Embassy of Japan in Vietnam with necessary internal procedures.
- (4) The Team stated that the construction works of the Project would start in September, 1998 on condition that the procedures relevant to the Project by the both governments are implemented smoothly.

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ITEMS REQUESTED BY THE GOV.

A. Facility

- (1) Deep Well
- (2) Oxygen Generator Room (approximately 80m²) in stead of Oxygen Cylinder Storage.
- (3) Duty Room for Machine Operator (2 desks)

B. Medical Equipment

- (1) Fluoroscopic X-Ray with remote control
- (2) Additional 20 ICU Beds

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Japan's Grant Aid Scheme

(1) Grant Aid Procedures

1) Japan's Grant Aid Program is executed through the following procedures.

Application	(Request made by a recipient country)
Study	(Basic Design Study conducted by JICA)
Appraisal & Approval	(Appraisal by the Government of Japan and Approval by Cabinet)
Determination of Implementation	(The Notes exchanged between the Governments of Japan and the recipient country)

2) Firstly, the application or request for a Grant Aid project submitted by a recipient country is examined by the Government of Japan (the Ministry of Foreign Affairs) to determine whether or not it is eligible for Grant Aid. If the request is deemed appropriate, the Government of Japan assigns JICA (Japan International Cooperation Agency) to conduct a study on the request.

Secondly, JICA conducts the study (Basic Design Study), using (a) Japanese consulting firm(s).

Thirdly, the Government of Japan appraises the project to see whether or not it is suitable for Japan's Grant Aid Program, based on the Basic Design Study report prepared by JICA, and the results are then submitted to the Cabinet for approval.

Fourthly, the project, once approved by the Cabinet, becomes official with the Exchange of Notes signed by the Governments of Japan and the recipient country.

Finally, for the implementation of the project, JICA assists the recipient country in such matters as preparing tenders, contracts and so on.

(2) Basic Design Study

1) Contents of the Study

The aim of the Basic Design Study (hereafter referred to as "the Study"), conducted by JICA on a requested project (hereafter referred to as "the Project") is to provide a

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basic document necessary for the appraisal of the Project by the Japanese Government. The contents of the Study are as follows:

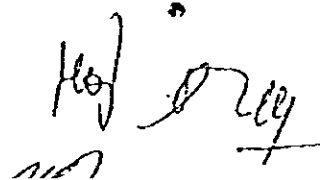
- a) Confirmation of the background, objectives, and benefits of the requested Project and also institutional capacity of agencies concerned of the recipient country necessary for the Project's implementation.
- b) Evaluation of the appropriateness of the Project to be implemented under the Grant Aid Scheme from a technical, social and economic point of view.
- c) Confirmation of items agreed on by both parties concerning the basic concept of the Project.
- d) Preparation of a basic design of the Project.
- e) Estimation of costs of the Project.

The contents of the original request are not necessarily approved in their initial form as the contents of the Grant Aid Project. The Basic Design of the Project is confirmed considering the guidelines of Japan's Grant Aid Scheme.

The Government of Japan requests the Government of the recipient country to take whatever measures are necessary to ensure its self-reliance in the implementation of the Project. Such measures must be guaranteed even though they may fall outside of the jurisdiction of the organization in the recipient country actually implementing the Project. Therefore, the implementation of the Project is confirmed by all relevant organizations of the recipient country through the Minutes of Discussions.

2) Selection of Consultants

For smooth implementation of the Study, JICA uses (a) registered consultant firm(s). JICA select (a) firm(s) based on proposals submitted by interested firms. The firm(s) selected carry(ies) out a Basic Design Study and write(s) a report, based upon terms of reference set by JICA. The consulting firm(s) used for the Study is (are) recommended by JICA to the recipient country also to work on the Project's implementation after the Exchange of Notes, in order to maintain technical consistency and also to avoid any undue delay in implementation should the selection process be repeated.



(3) Japan's Grant Aid Scheme

1) What is Grant Aid?

The Grant Aid Program provides a recipient country with non-reimbursable funds to procure the facilities, equipment and services (engineering services and transportation of the products, etc.) for economic and social development of the country under principles in accordance with the relevant laws and regulations of Japan. Grant Aid is not supplied through the donation of materials as such.

2) Exchange of Notes (E/N)

Japan's Grant Aid is extended in accordance with the Notes exchanged by the two Governments concerned, in which the objectives of the Project, period of execution, conditions and amount of the Grant Aid, etc., are confirmed.

- 3) "The period of the Grant Aid" means the one fiscal year which the Cabinet approved the Project for. Within the fiscal year, all procedures such as exchanging of the Notes, concluding contracts with (a) consultant firm(s) and (a) contractor(s) and final payment to them must be completed.

However in case of delays in delivery, installation or construction due to unforeseen factors such as weather, the period of the Grant Aid can be further extended for a maximum of one fiscal year at most by mutual agreement between the two Governments.

- 4) Under the Grant Aid, in principle, Japanese products and services including transport or those of the recipient country are to be purchased.

When the two Governments deem it necessary, the Grant Aid may be used for the purchase of the products or services of a third country.

However the prime contractors, namely, consulting constructing and procurement firms, are limited to "Japanese nationals". (The term "Japanese nationals" means persons of Japanese nationality or Japanese corporations controlled by persons of Japanese nationality.)

5) Necessity of "Verification"

The Government of recipient country or its designated authority will conclude contracts denominated in Japanese yen with Japanese nationals. Those contracts shall be verified by the Government of Japan. This "Verification" is deemed necessary to secure accountability of Japanese taxpayers.

6) Undertakings required of the Government of the Recipient Country

In the implementation of the Grant Aid project, the recipient country is required to undertake such necessary measures as the following:

- (1) To secure land necessary for the sites of the Project and to clear, level and reclaim the land prior to commencement of the construction.
- (2) To provide facilities for the distribution of electricity, water supply and drainage and other incidental facilities in and around the sites.
- (3) To secure buildings prior to the procurement in case the installation of the equipment.
- (4) To ensure all the expense and prompt execution for unloading, customs clearance at the port of disembarkation and internal transportation of the products purchased under the Grant Aid.
- (5) To exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which will be imposed in the recipient country with respect to the supply of the products and services under the Verified Contracts.
- (6) To accord Japanese nationals whose services may be required in connection with the supply of the products and services under the Verified contracts, such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work.

(7) "Propose Use"

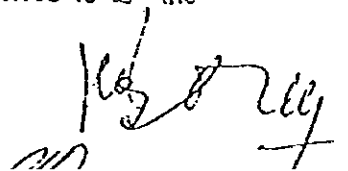
The recipient country is required to maintain and use the facilities constructed and equipment purchased under the Grant Aid properly and effectively and to assign staff necessary for this operation and maintenance as well as to bear all the expenses other than those covered by the Grant Aid.

(8) "Re-export"

The products purchased under the Grant Aid should not be re-exported from the recipient country.

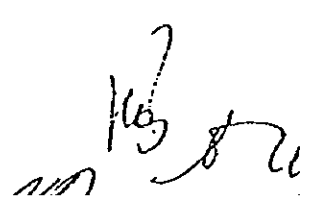
(9) Banking Arrangements (B/A)

- a) The Government of the recipient country or its designated authority should open an account in the name of the Government of the recipient country in an authorized foreign exchange bank in Japan (hereinafter referred to as "the

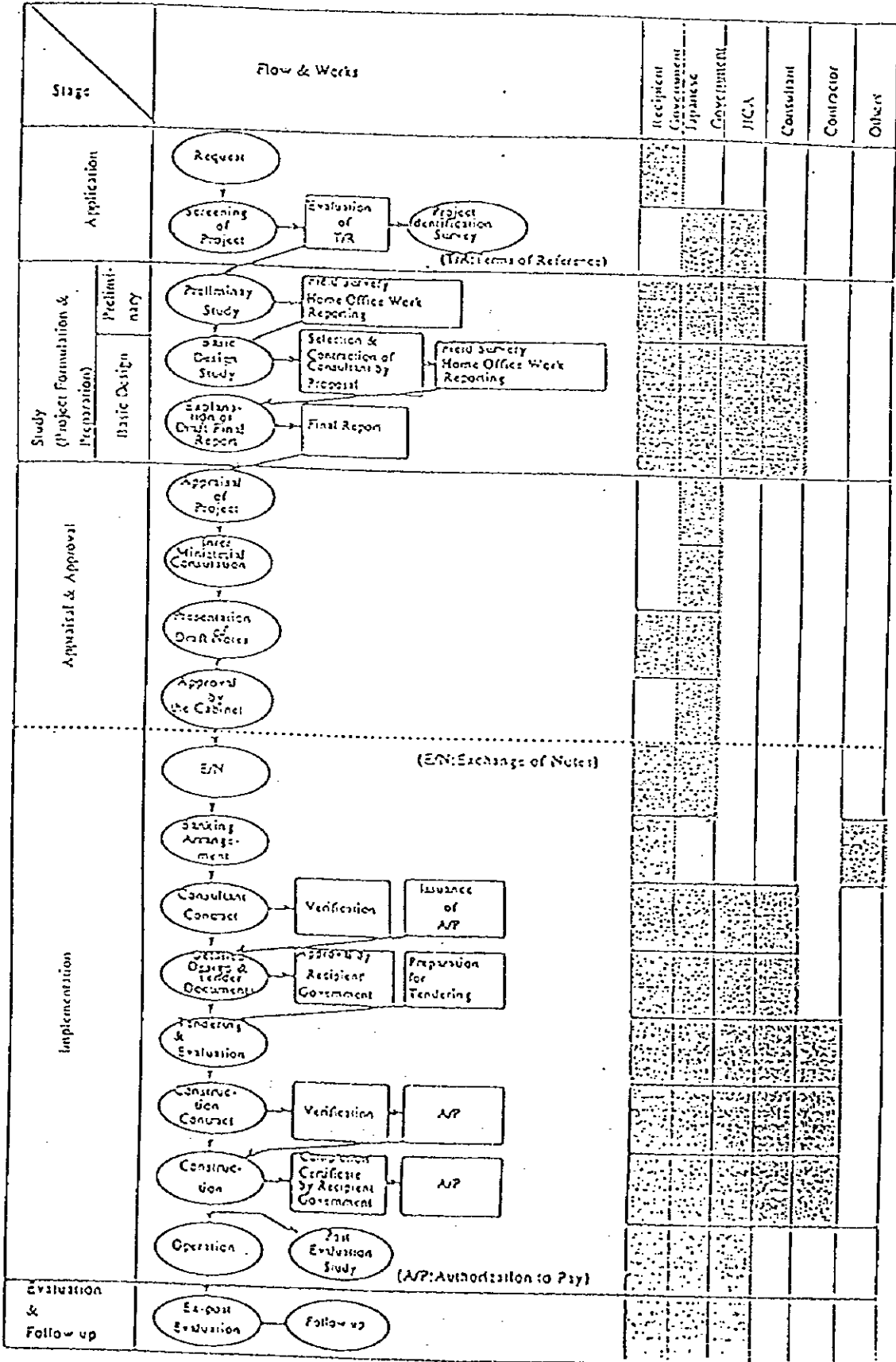


Bank"). The Government of Japan will execute the Grant Aid by making payments in Japanese yen to cover the obligations incurred by the Government of the recipient country or its designated authority under the Verified Contracts.

- b) The payments will be made when payment requests are presented by the Bank to the Government of Japan under an authorization to pay issued by the Government of the recipient country or its designated authority.

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Flow Chart of Japan's Grant Aid Procedures



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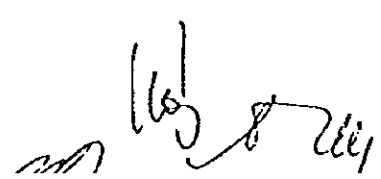
Major Undertakings to be taken by Each Government

No.	Items	To be covered by Grant Aid	To be covered by Recipient Side
1	To secure land		●
2	To clear, level and reclaim the site when needed		●
3	To construct gates and fences in and around the site		●
4	To construct the parking lot	●	
5	To construct roads		
	1) Within the site	●	
	2) Outside the site		●
6	To construct the buildings	●	
7	To provide facilities for the distribution of electricity, water supply, drainage and other incidental facilities		
	1) Electricity		
	a. The distributing line to the site		●
	b. The drop wiring and internal wiring within the site	●	
	c. The main circuit breaker and transformer	●	
	2) Water Supply		
	a. The city water distribution main to the site		●
	b. The supply system within the site (receiving and elevated tanks)	●	
	3) Drainage		
	a. The city drainage main (for storm, sewer and others) to the site		●
	b. The drainage system (for toilet/sewer, ordinary waste, storm drainage and others) within the site	●	
	4) Gas Supply		
	a. The city gas main to the site		●
	b. The gas supply system within the site	●	
	5) Telephone System		
	a. The telephone trunk line to the main distribution frame/panel (MDF) of the building		●
	b. The MDF and the extension after the frame/panel	●	
	6) Furniture and Equipment		
	a. General furniture		●
	b. Project equipment	●	
8	To bear the following commissions to the Japanese foreign exchange bank for the banking services based upon the B/A		
	1) Advising commission of A/P		●
	2) Payment commission		●
9	To ensure unloading and customs clearance at port of disembarkation in recipient country		
	1) Marine (Air) transportation of the products from Japan to the recipient country	●	
	2) Tax exemption and custom clearance of the products at the port of disembarkation		●
	3) Internal transportation from the port of disembarkation to the project site	●	
10	To accord Japanese nationals whose services may be required in connection with the supply of the products and the services under the verified contract such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work.		●
11	To exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which may be imposed in the recipient country with respect to the supply of the products and services under the verified contracts.		●
12	To maintain and use properly and effectively the facilities constructed and equipment provided under the Grant.		●
13	To bear all the expenses, other than those to be borne by the Grant, necessary for construction of the facilities as well as for the transportation and installation of the equipment		●

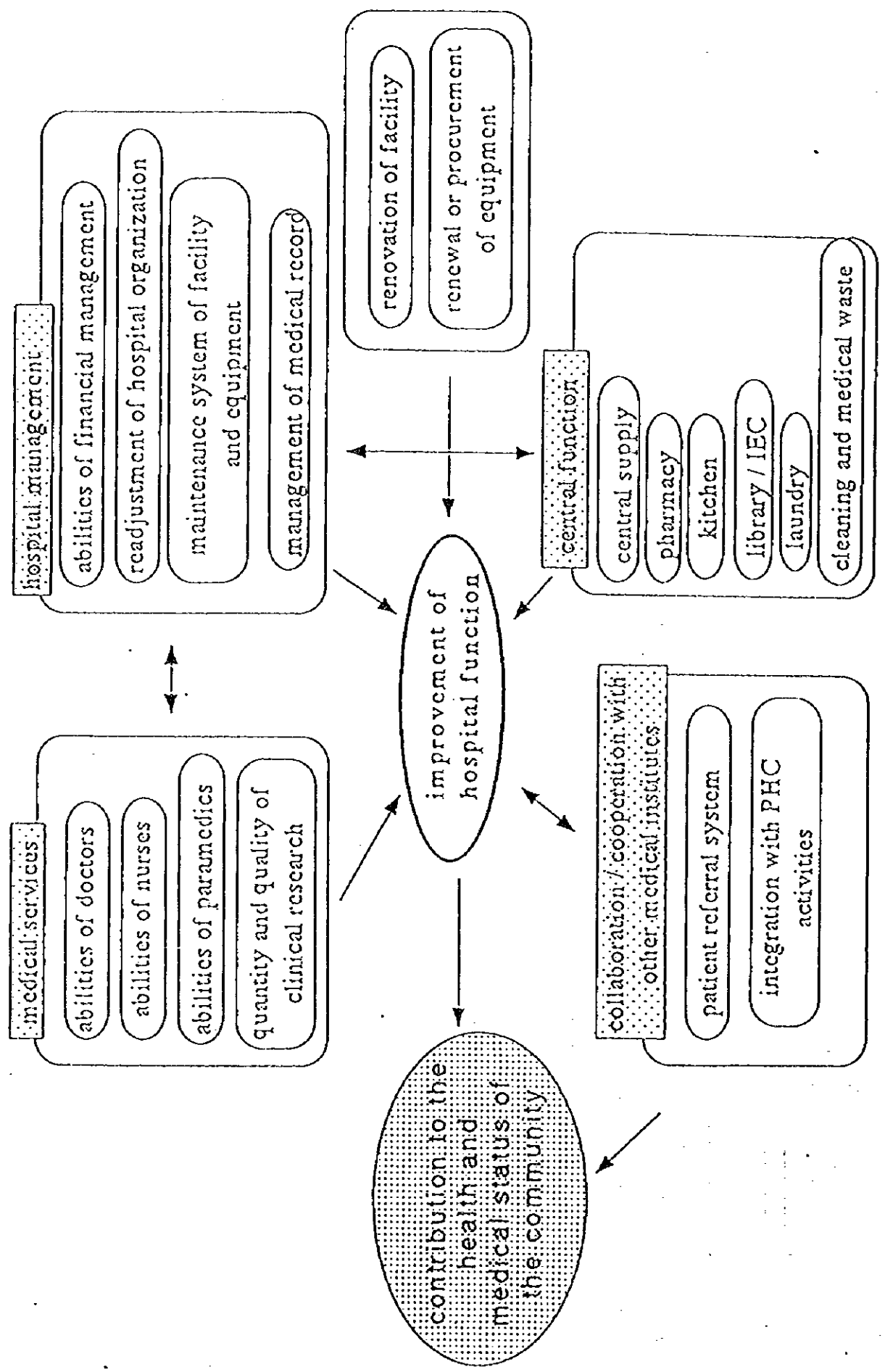
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Necessary Measures to be taken by the Government of Viet Nam

1. to provide data and information necessary for the Project ;
2. to secure the site for the Project ;
3. to clear, level and reclaim the site prior to commencement of the Project ;
4. to undertake incidental outdoor works such as gardening, fencing, gates and exterior lighting in and around the site ;
5. to provide facilities for distribution of electricity, water supply, telephone, drainage, sewerage and other incidental facilities to the site ;
 - (1) electricity distributing line to the site.
 - (2) city water distribution main to the site.
 - (3) drainage city main to the site.
 - (4) telephone trunk line and the main distribution panel of building.
 - (5) general furniture such as carpets, curtains, tables, chairs and others.
6. to bear commissions to the Japanese foreign exchange bank for its banking service based upon the Banking Arrangement (B / A), namely the advertising commission of the Authorization to Pay (A / P) and payment commission ;
7. to ensure prompt unloading, tax exemption, customs clearance at the port of disembarkation in Viet-Nam and prompt internal transportation therein of the materials and equipment for the Project purchased under the Grant Aid ;
8. to exempt Japanese juridical and physical nationals engaged in the Project from customs duties, internal taxes and other fiscal levies which may be imposed in Viet-Nam with respect to the supply of the products and services under the verified contracts ;
9. to accord Japanese nationals whose services may be required in connection with the supply of the products and services under the verified contracts such facilities as may be necessary for their entry into Viet-Nam and stay therein for the performance of their work ;
10. to provide necessary permissions, licenses and other authorizations for implementing the Project, if necessary ;
11. to assign appropriate budget and teaching and administrative staff members for proper and effective operation and maintenance of equipment procured under the Grant Aid ;
12. to maintain and use properly and effectively the facilities constructed and the equipment procured under the Project ; and
13. to bear all the expenses, other than those to be borne by the Japan's Grant Aid within the scope of the Project.



Annex-6 Component factors for improvement of hospital function



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ANNEX-7

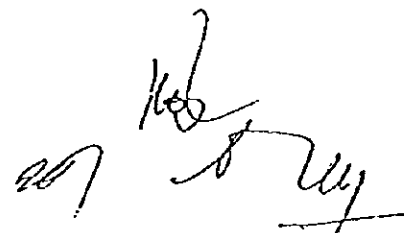
Indicators of evaluation for quality and quantity of medical services

- 1 disease distribution of in-patients (department-wise)
- 2 average bed occupancy rate (ward-wise)
- 3 average admission days (ward-wise, department - wise ,and top-ten-disease - wise)
- 4 preoperative admission day s
- 5 mortality in the hospital (whole hospital, department-wise, disease-wise)
- 6 rate of discharge for death at home (department-wise, ward-wise)
- 7 operative mortality (department-wise)
- 8 neonatal mortality in the hospital
- 9 rate of voluntary discharge (department-wise, ward-wise)
- 10 rate of discharge with improvement of the disease (department-wise)
- 11 referral rate(to other hospitals ,from other hospitals)
- 12 patients satisfaction surveillance
- 13 ratio of responded claims
- 14 ratio of the dieted in-patient
- 15 other indicatios if neccessary

Qualitative evaluation for the activities to the community health

(If yes, please answer ellaborately)

- 1 Does the activities of the hospital meet the community needs?
- 2 Number of visits of the consultation team to the lower referral hospitals.
- 3 Number of seminors for the lower referral medical personell.
- 4 Does the hospital give collaboration and cooperation to the community health activities and medical care?
- 5 Is the role of the hospital in the community health clear?
- 6 Is the hospital regular meetings with surrounding health facilities ?
- 7 Is the hospital sharing the medical equipment with other hospitals?
- 8 Is the hospital providing medical information to other facilities?
- 9 other indicatios if neccessary



3. 要請機材検討表

要請機材検討項目評価基準

機材検討項目		印 : 評価基準
A	基本的必要性	○ : 診療活動上必須 △ : 診療活動の改善に有用 × : 診療活動上不要
B	医療技術レベル	○ : 該当する機材の使用経験が豊富 △ : 該当する機材の使用経験がやや不足 × : 該当する機材の使用経験が皆無
C	運営維持管理コスト	○ : 運営維持費が0~20万円/年以内 △ : 運営維持費が20~50万円/年以内 × : 運営維持費が50万円/年以上
D	環境	○ : 環境汚染の可能性無し △ : 環境汚染の可能性若干有り × : 環境汚染の可能性高い
E	更新または数量補充	○ : 既存機材の更新または数量補充 △ : 消耗品と考えられるもの × : 使用経験が無く、新規調達と考えられるもの
F	裨益効果	○ : 裨益効果が大きいと考えられるもの △ : 裨益効果がやや小さいと考えられるもの × : 裨益効果が無いと考えられるもの
G	中央化	○ : 中央化のコンセプトに沿うと考えられるもの △ : 中央化のコンセプトにややそぐわないと考えられるもの × : 中央化のコンセプトにそぐわないと考えられるもの
H	仕様	○ : 必要性に適した仕様となっているもの △ : 必要性にややそぐわない仕様となっているもの × : 必要性に全くそぐわない仕様となっているもの

機材検討表

Item No.	部門名	機材名	要請数量	カテゴリ	全体計画	既存機材台数	A	B	C	D	E	F	G	H	検討結果 数量
HE - 1	血液検査	コアグロメータ	1	I	1		○	○	△	△	×	○	○	○	1
HE - 2		双眼顕微鏡	3	I	3		○	○	○	○	○	○	○	○	3
HE - 3		ヘマトクリット遠心器	1	I	1		○	○	○	△	○	○	○	○	1
HE - 4		卓上型遠心器	2	I	2		○	○	○	○	○	○	○	○	2
HE - 5		自動血球計数装置	1	I	1		○	○	×	△	×	○	○	○	1
HE - 6		数取器	1	I	3		○	○	○	○	○	○	○	○	3
HE - 7		超低温保冷库	1	III	1		○	○	○	○	○	○	○	○	1
HE - 8		薬品保冷库	1	I	1		○	○	○	○	○	○	○	○	1
HE - 9		自動マイクロピペットセット	1	I	1		○	○	○	○	○	○	○	○	1
HE - 10		インキュベータ	1	I	1		○	○	○	○	○	○	○	○	1
HE - 11		乾燥器	1	I	1		○	○	○	○	○	○	○	○	1
HE - 12		自動染色装置	1	III	1		○	○	○	△	×	○	○	○	1
HE - 13		ピペット洗浄器	1	I	1		○	○	○	○	○	○	○	○	1
HE - 14		比色計	1	I	1		○	○	○	○	○	○	○	○	1
HE - 15		回転式振とう器	1	I	1		○	○	○	○	○	○	○	○	1
HE - 16		電子天秤	1	I	1		○	○	○	○	○	○	○	○	1
HE - 17		ピペット振とう器	1	I	1		○	○	○	○	○	○	○	○	1
HE - 18		臨床検査用小物セット	1	I	1		○	○	○	○	○	○	○	○	1
HE - 19		血液保冷库	2	I	2		○	○	○	○	○	○	○	○	2
BE - 1	生化学検査	自動生化学分析装置	1	III	1		○	○	×	×	○	○	○	○	1
BE - 2		卓上型遠心器	2	II	3	2	○	○	○	○	○	○	○	○	1
BE - 3		薬品保冷库	2	II	3	1	○	○	○	○	○	○	○	○	2
BE - 4		自動ピペッター	1	I	1		○	○	○	○	○	○	○	○	1
BE - 5		自動分注器	2	I	2		○	○	○	○	○	○	○	○	2
BE - 6		分光光度計	1	II	3	2	○	○	○	○	○	○	○	○	1
BE - 7		軟水器	1	IV	1	1	×	○	△	○	×	×	×	○	0
BE - 8		カート (ラボ用)	2	I	2		○	○	○	○	○	○	○	○	2
BE - 9		器械戸棚	5	I	5		○	○	○	○	○	○	○	○	5
BE - 10		ピペット洗浄器	3	I	3		○	○	○	○	○	○	○	○	3
BE - 11		臨床検査用小物セット	1	I	1		○	○	○	○	○	○	○	○	1
ME - 1	微生物検査	コロニーカウンター	1	I	1		○	○	○	○	○	○	○	○	1
ME - 2		双眼顕微鏡	7	I	3		○	○	○	○	○	○	○	○	3
ME - 3		インキュベータ	5	I	2		○	○	○	○	○	○	○	○	2
ME - 4		乾燥器	2	I	2		○	○	○	○	○	○	○	○	2
ME - 5		超低温保冷库	1	I	1		○	○	○	○	○	○	○	○	1
ME - 6		嫌気ジャー	1	I	1		○	○	○	○	○	○	○	○	1
ME - 7		卓上型遠心器	3	I	2		○	○	○	○	○	○	○	○	2
ME - 8		振とう器	3	I	2		○	○	○	○	○	○	○	○	2
ME - 9		電子天秤	1	I	1		○	○	○	○	○	○	○	○	1

IS - 16		シャーカステン	10	I	9		○	○	○	○	○	○	○	○	○	○	○	9
IS - 17		丸椅子 (ナース用)	20	I	18		○	○	○	○	○	○	○	○	○	○	○	18
IS - 18		救急カート	10	I	9		○	○	○	○	○	○	○	○	○	○	○	9
IS - 19		薬品戸棚	10	I	9		○	○	○	○	○	○	○	○	○	○	○	9
IS - 20		自動新生児体重計	5	I	2		○	○	○	○	×	○	○	○	○	×	○	2
IS - 21		卓上型滅菌機	10	I	9		○	○	○	○	○	○	○	○	○	○	○	9

4. BMH財務データ

4. BMH財務データ

バックマイ病院収支実績(1992-1996)

(単位:百万VND)

	1992		1993		1994		1995		1996	
	金額 (VND)	金額 (VND)	前年比 %	金額 (VND)	前年比 %	金額 (VND)	前年比 %	金額 (VND)	前年比 %	
定期収入										
保健省通常予算	6,668	11,480	172	16,995	148	18,898	111	19,662	104	
保健省研究予算	50	0	-	70	-	0		205		
保健省追加予算	0	0	-	0	-	55		112	204	
診療収入	1,377	1,441	105	1,720	119	5,344	311	6,580	123	
医療保険	0	0	-	0	-	1,105		11,271	1,020	
看護学校学費	0	0	-	234	-	314	134	322	103	
その他	0	0	-	402	-	2,144	532	521	24	
収入合計金額(A)	8,095	12,921	160	19,422	150	27,860	143	35,673	139	
支出										
人件費	1,921	3,423	178	5,784	169	8,099	140	11,426	141	
医薬品費	1,682	1,973	117	2,830	143	8,476	300	16,445	194	
事務費・光熱費	1,850	2,577	139	3,787	147	3,571	94	4,522	127	
医療器材維持費	545	968	178	773	80	1,461	189	1,748	120	
施設・設備維持費	780	452	58	1,301	288	1,425	110	837	59	
支出合計金額(B)	5,453	7,973	145	12,401	155	20,146	162	32,393	161	
収支バランス(A)-(B)	2,642	4,948		7,021		7,714		6,280		

バックマイ病院収支予測 (1997-2000)

(単位:百万VND)

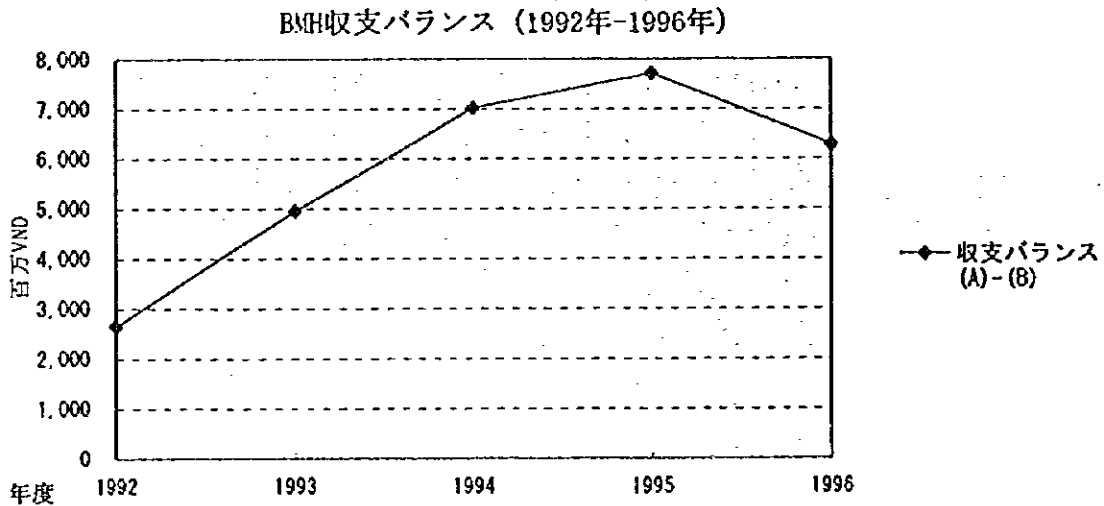
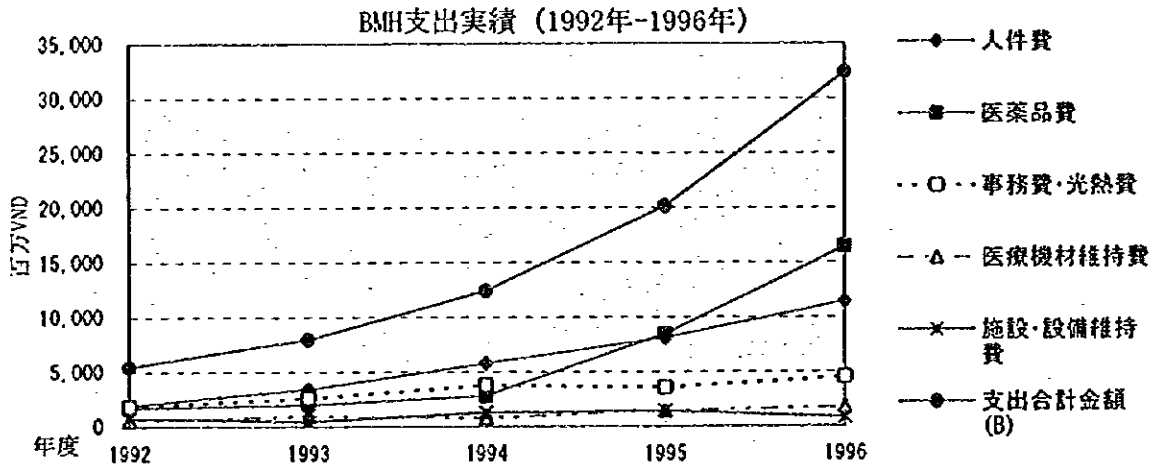
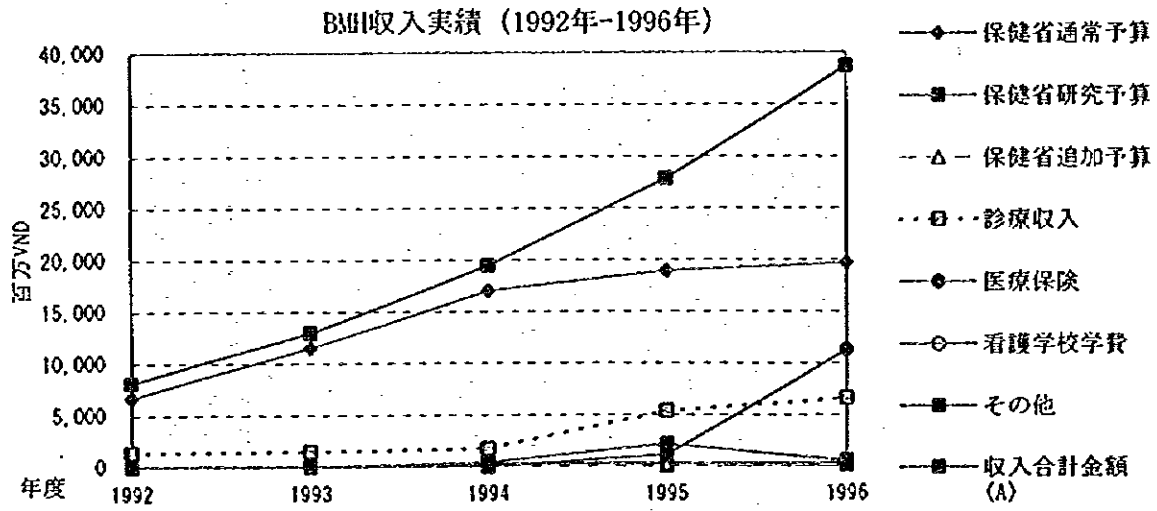
	1997		1998		1999		2000		プロジェクト 完成後(2000) (1140床)	合計金額 に対する 割合 %
	(980床)	前年度比 %	(980床)	前年度比 %	(960床)	前年度比 %	(960床)	前年度比 %		
収入										
保健省通常予算	23,300	118.50	26,735	115.00	29,475	110.00	30,948	105.00	36,001	55.23
保健省研究予算	0	-	100	-	-	-	120	-	120	0.18
保健省追加予算	123	110.00	135	110.00	149	110.00	163	110.00	163	0.25
診療収入	7,238	110.00	7,962	110.00	8,758	110.00	9,634	110.00	11,207	17.19
医療保険	12,397	110.00	13,637	110.00	15,000	110.00	16,500	110.00	16,500	25.31
看護学校学費	322	100.00	354	110.00	390	110.00	429	110.00	429	0.66
その他	572	110.00	629	110.00	692	110.00	761	110.00	761	1.17
収入合計金額(A)	43,952	113.60	49,612	112.90	54,464	109.80	58,556	107.50	65,181	100.00
支出										
人件費	13,711	120.00	15,082	110.00	16,590	110.00	18,249	110.00	18,724	30.12
医薬品費	21,378	130.00	23,516	110.00	23,516	100.00	23,516	100.00	27,355	44.01
事務費・光熱費	4,974	110.00	5,471	110.00	6,019	110.00	6,620	110.00	8,930	14.37
医療器材維持費	1,923	110.00	2,115	110.00	2,327	110.00	2,560	110.00	5,310	8.54
施設・設備維持費	920	110.00	1,012	110.00	1,113	110.00	1,225	110.00	1,841	2.96
支出合計金額(B)	42,906	132.45	47,197	110.00	49,565	105.02	52,170	105.25	62,160	100.00
収支バランス(A)-(B)	1,046		2,415		4,899		6,386		3,021	

注1) 前年度比は前年度予算を100%とした。

注2) 1997年度分保健省通常予算のみ確定

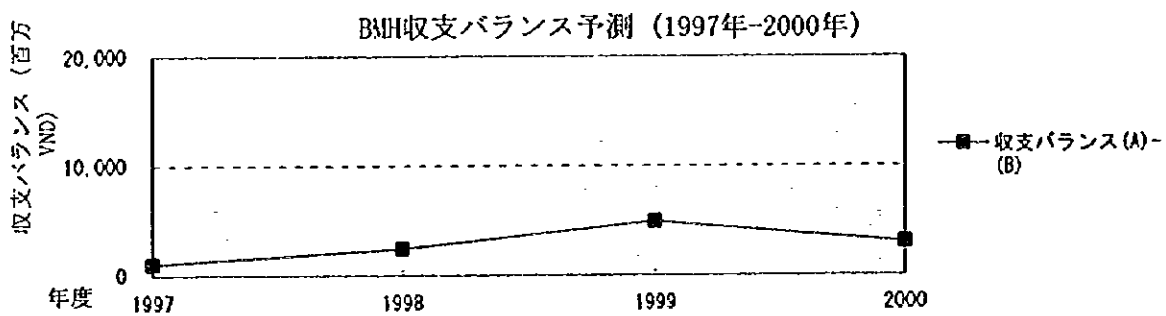
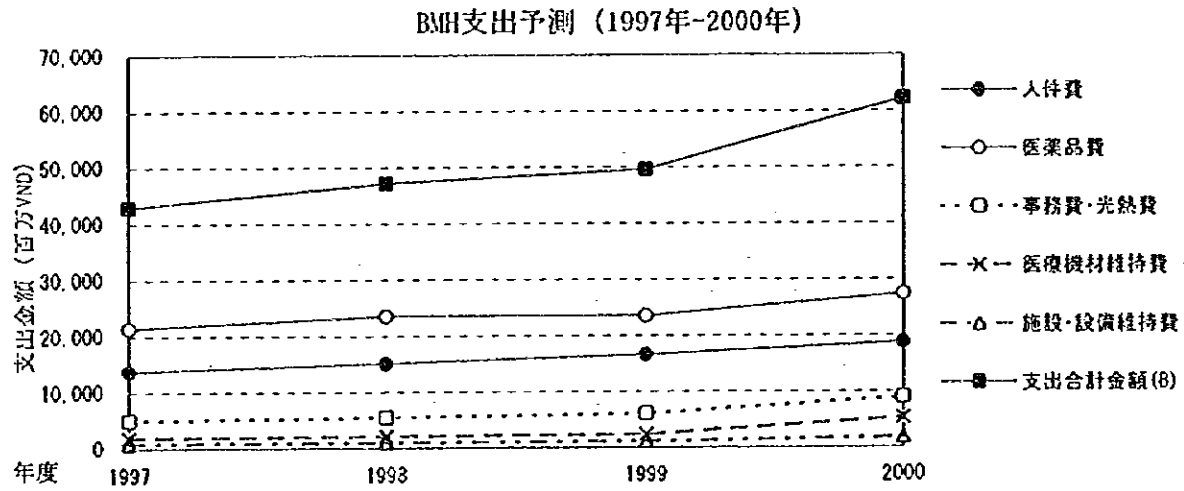
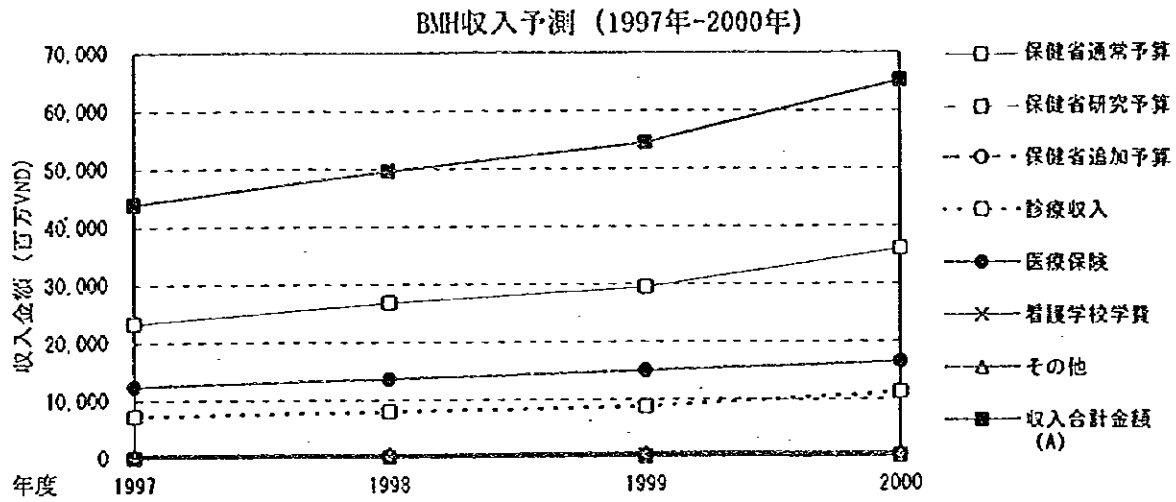
バックマイ病院収支実績

(単位百万VND)



(単位：百万VND)

バックマイ病院収支予測



5. 当該国の社会・経済事情

国名	ヴ(エトナム社会主義共和国 Socialist Republic of Viet Nam
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1997.03 1/2

一般指標				
政体	共産制	*1	首都	ハノイ
元首	President Le Duc ANH	*1	主要都市名	ホーチミン、ダナン、ビエンホー
独立年月日	1945年09月02日	*1	経済活動可人口	37,000千人 (1994年)
人種(部族)構成	ベトナム人85-90%	*4	義務教育年数	5年間 (1996年)
			初等教育就学率	- %
言語・公用語	ベトナム語、仏語、中国語、英語	*1	初等教育終了率	58.0% (1990年)
宗教	仏教、ローマカトリック、道教	*1	識字率	92.5% (1993年)
国連加盟	1977年09月	*2	人口密度	228.64人/Km ² (1995年)
世銀・IMF加盟	1956年09月	*3	人口増加率	1.71% (1995年)
			平均寿命	平均65.72 男63.66 女67.91
			5歳児未満死亡率	46 /1000 (1994年)
面積	329.56千Km ²	*4	1人当り供給量	2,250.0cal/日/人 (1992年)
人口	74,393.3千人 (1995年)	*4		

経済指標				
通貨単位	ドン	*1	貿易量	(1994年)
為替レート(1US\$)	1US\$= -	*6	輸出	3,770.0百万ドル
会計年度	1月~ 12月	*1	輸入	4,440.0百万ドル
国家予算		*6	輸入依存率	- %
歳入	- 百万ドル	*6	主要輸出品目	農産物、手工芸品、石炭、鉱石
歳出	- 百万ドル	*6	主要輸入品目	石油製品、鉄鋼製品、鉄道機器
国際収支	- 百万ドル	*6	日本への輸出	1,716.0百万ドル (1995年)
ODA受取額	897.00 百万ドル (1994年)	*8	日本からの輸入	921.0百万ドル (1995年)
国内総生産(GDP)	15,570.00 百万ドル (1994年)	*8		
一人当たりGNP	200.0 ドル (1993年)	*8	外貨準備総額	- 百万ドル
GDP産業別構成	農業 28.0 % (1994年)	*8	対外債務残高	300.0百万ドル (1994年)
	鉱工業 30.0 % (1994年)		対外債務返済率	6.1 % (1994年)
	サービス業 43.0 % (1994年)		インフレ率	14.3 % (1993年)
産業別雇用	農業 71.0 % (1990年)	*5		
	鉱工業 14.0 % (1990年)			
	サービス業 15.0 % (1990年)		国家開発計画	第5次5ヵ年計画 (1991~1995年)
経済成長率	8.0 % (1994年)	*8		

気象(年~ 年平均) 場所: Hanoi		(標高 16 m)											
月	1	2	3	4	5	6	7	8	9	10	11	12	平均/計
最高気温	20.0	21.0	23.0	28.0	32.0	33.0	33.0	32.0	31.0	29.0	26.0	22.0	27.5℃
最低気温	13.0	14.0	17.0	20.0	23.0	26.0	26.0	26.0	24.0	22.0	18.0	15.0	20.3℃
平均気温	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0℃
降水量	18.0	28.0	38.0	81.0	196.0	239.0	323.0	343.0	254.0	99.0	43.0	20.0	1,682.0 mm
雨期/乾期	雨 雨 雨 雨												

*1 CIA World Fact book(1993)

*2 States Member of the United Nations

*3 World Bank Fax(1994)

*4 CIA World Fact Book(1996-1997)

*5 Human Development Report(1996)

*6 International Financial Statistics

*7 Statistical Yearbook 1996

*8 World Development Report(1996)

*9 World Debt Tables (1996)

*10 世界の国一覽(外務省外務報道官編集)(1996)

*11 最新世界各国要覧(1996)

*12 理科年表1997(丸善)

国名	ヴェトナム社会主義共和国 Socialist Republic of Viet Nam
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*13

項目	年度	1990	1991	1992	1994
技術協力		2,382.47	2,515.30	2,699.97	3,087.67
無償資金協力		1,989.63	2,050.70	2,194.95	2,456.48
有償資金協力		5,676.39	7,364.47	5,852.05	4,352.21
総 額		10,048.49	11,930.47	10,746.97	9,896.36

*14

項目	歴年	1991	1992	1993	1994
技術協力		6.93	5.22	13.25	30.84
無償資金協力		0.17	0.21	8.31	58.76
有償資金協力		0.21	275.81	-10.10	-10.14
総 額		7.31	281.24	11.46	79.46

*13

	贈 与 (1)		有償資金協力 (2)	政府開発援助 (ODA) (1) + (2) = (3)	その他政府資 金及び民間資 金 (4)	経済協力総額 (3) + (4)
		技術協力				
二国間援助 (主要供与国)	175.10	95.20	298.90	474.00	2.10	476.10
1. 日本	5.40	502.00	275.80	281.20	0.00	281.20
2. スウェーデン	59.70	28.60	0.00	59.70	0.00	59.70
3. ドイツ	27.70	26.90	0.00	27.70	0.00	27.70
4. イタリア	3.30	0.10	23.10	26.40	0.00	26.40
多国間援助 (主要援助機関)	94.40	61.40	14.90	109.30	0.00	109.30
1. CEC	0.00	0.00	0.00	0.00	0.00	0.00
2. UNDP	0.00	0.00	0.00	0.00	0.00	0.00
そ の 他	0.00	0.00	-3.70	-3.70	0.00	-3.70
合 計	269.50	156.60	310.10	579.60	2.10	581.70

*15

技術	関係各省庁→外務省
無償	関係各省庁→外務省
協力隊	関係各省庁→外務省

*13 Geographical Distribution of Financial Flows of Developing Countries(1996)

*14 Japan's Official Development Assistance Annual Report (1995)

*15 国別協力情報(JICA)

6. その他のデータ

REMARK



Layer 1 : Filled soil , firm to stiff CLAY



Layer 2 : Stiff , yellowish brown CLAY



Layer 3 : Soft to firm bluish grey SILTY CLAY



Layer 4 : Loose , greenish grey SILTY SAND



Layer 5 : Medium dense , greenish grey FINE SAND



Layer 6 : Firm , pinkish brown , CLAY Intermixed with a band of loose to medium dense silty sand in the middle of the layer



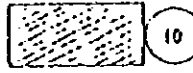
Layer 7 : Medium dense greenish grey CLAYER SAND



Layer 8 : Stiff , greenish grey , CLAY



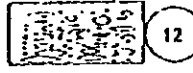
Layer 9 : Dense , greenish grey SANDY SAND




Layer 10 : Firm , redish brown SANDY CLAY

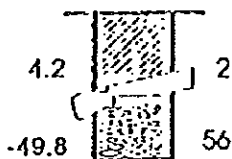


Layer 11 : Dense to very dense , light grey FINE to MEDIUM SAND



Layer 12 : Very dense , light grey GRAVEL , COBBLE

 BMI




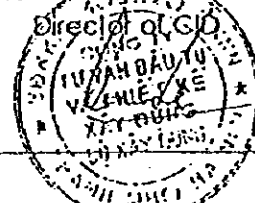


Boring log

Right: Depth of layer bottom

Left : Assumed elevation of layer bottom

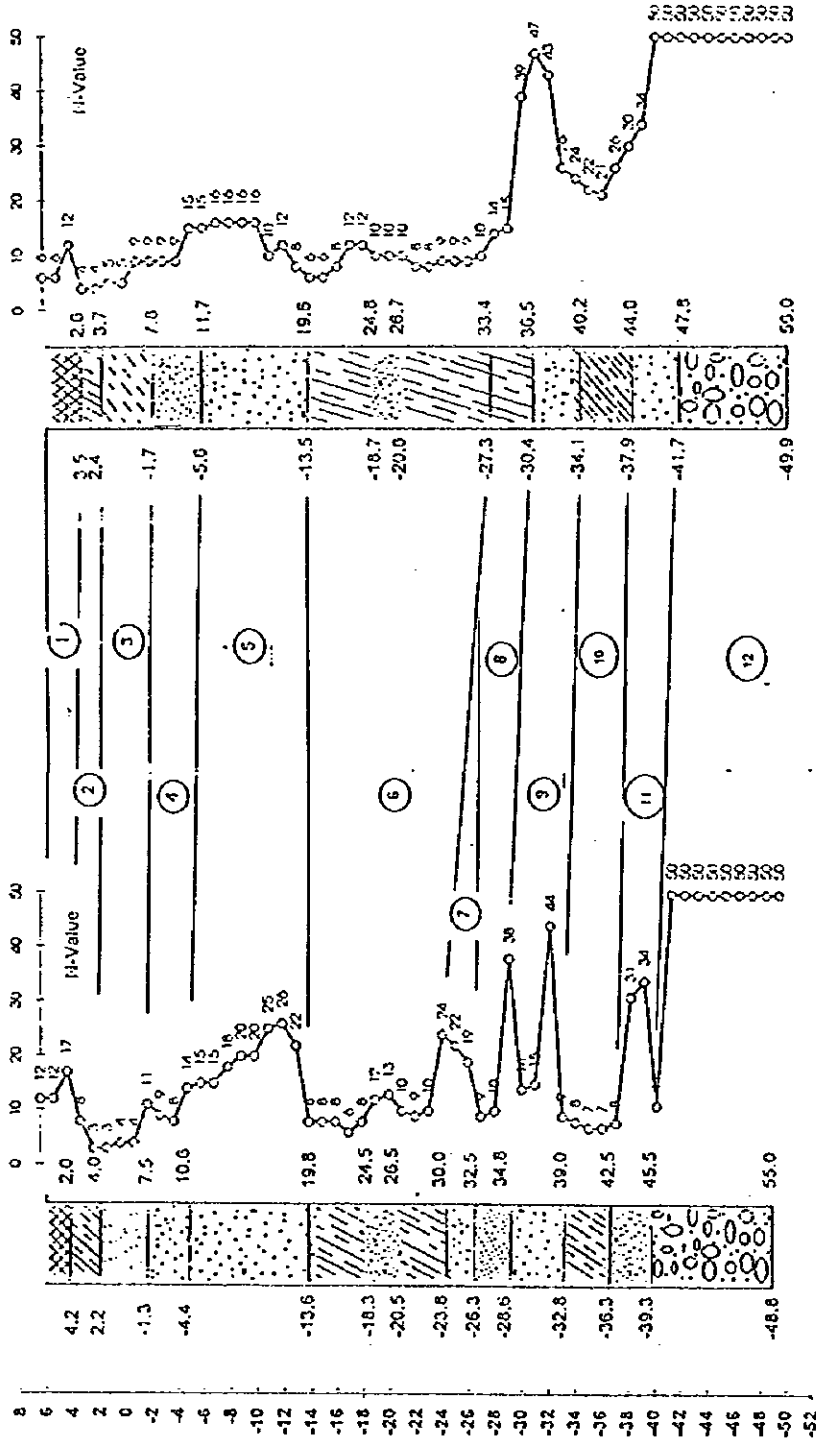
Assumed elevation & bored depth of borehole

INVESTMENT CONSULTANCY & DESIGN CONSTRUCTION COMPANY		BACHMAI HOSPITAL PROJECT	
Established by	Eng. Phan Manh Hung		GEOTECHNICAL PROFILE I-I
Drawed by	Eng. Phan Manh Hung		
Checked by	Dr. Dinh Ngoc Thong		
Hanoi, March 1997 Director of G.D. 		Scale Ver. 1/400 Hor. 1/400 <hr/> Sheet 1 of 3 Appendix 2	

GIAM ĐỐC

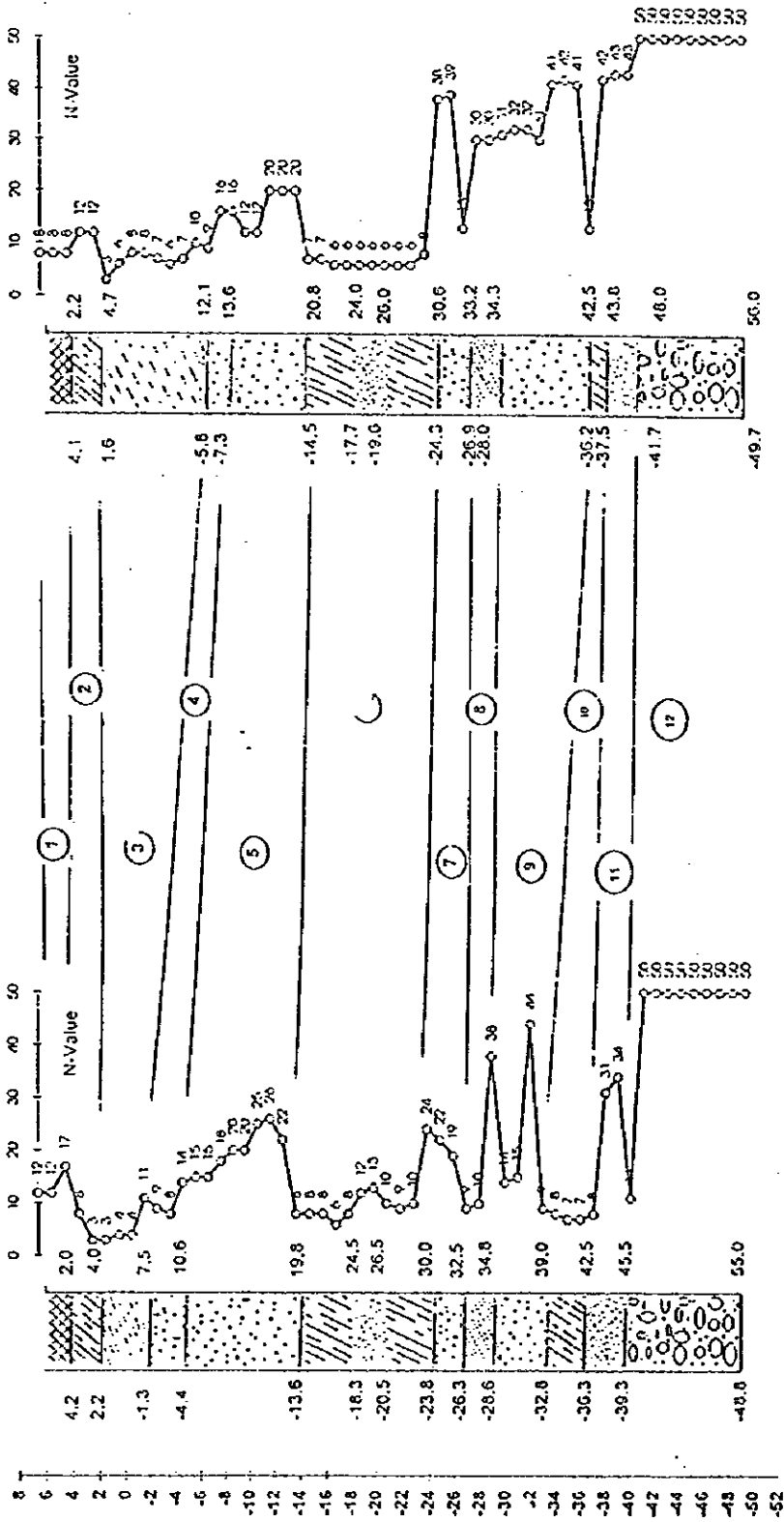
P.T.C. Lê Văn Bình

Elevation (m)



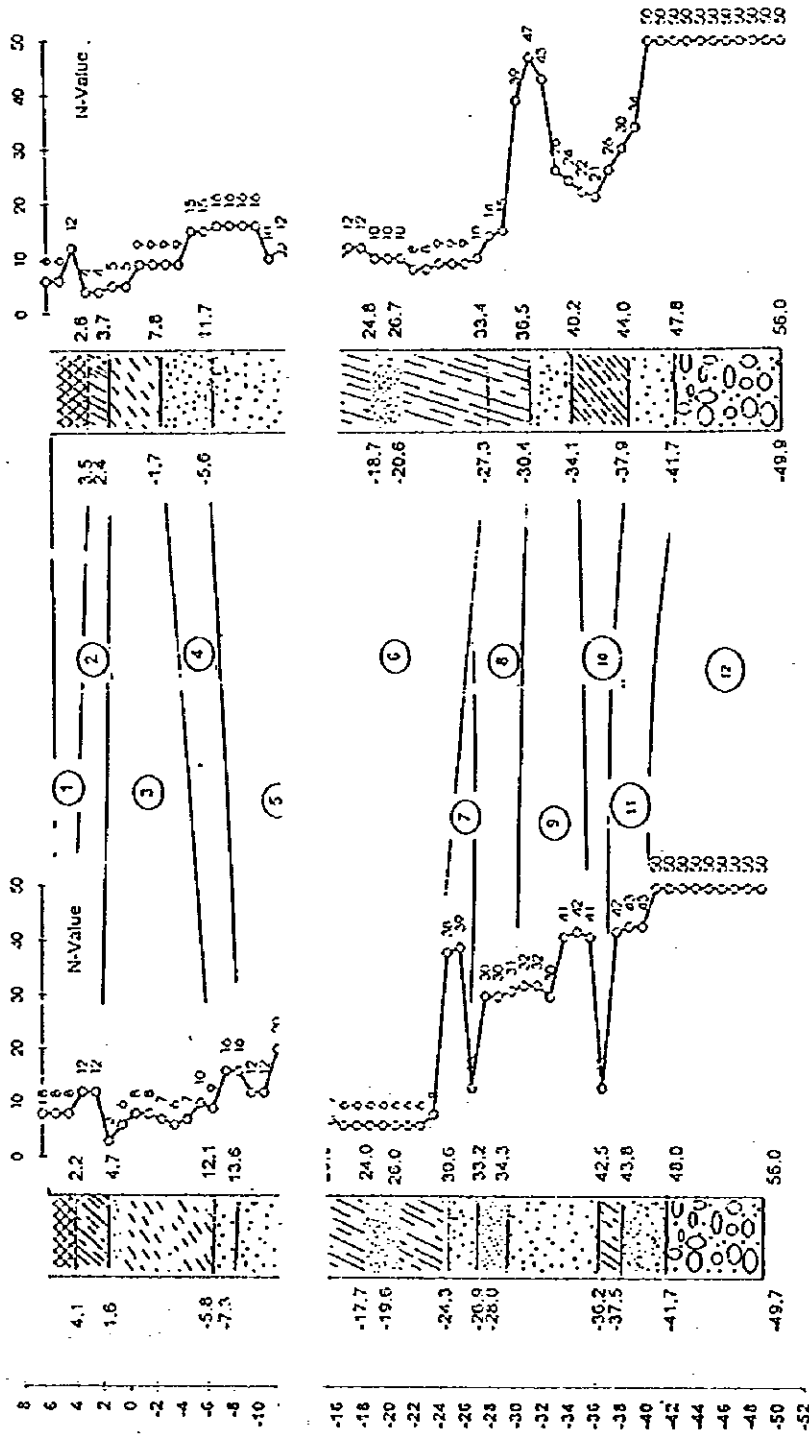
bench	BM1	BM2
station (m)	6.16	6.09
distance (m)	65.9	
underground water level (m)		

Elevation (m)



reference	BM1	
station (m)	6.16	6.20
fence (m)		75.19
depth of water level (m)		

Elevation (m)



Point	BM3	LM2
Elevation (m)	6.26	6.00
Price (m)		65.3
Groundwater level (m)		

(2) テクニカルノート

March 11, 1997

Prof. Dr. Tran Quy
Director, Bach Mai Hospital

Re : Technical Note for Basic Design Study on the Project
for the Improvement of Bach Mai Hospital in Viet Nam

Dear Dr. Tran Quy,

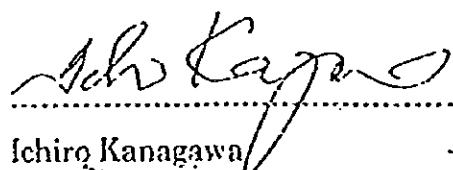
In line with the Minutes of Discussion signed on 27th February 1997, between Mr. Takimoto, Leader of Basic Design Team, JICA and Dr. Ngo Van Hop, Director General, Department of International Cooperation, Ministry of Health, the Team has carried out further studies in Viet Nam. As the result of the studies, we were able to gather all the information necessary to complete the Basic Design and would like to summarize it in the Technical Note as follows ;

1. Work Schedule
2. Sketch Plan with Comments
3. Topographical Survey and Boring Test by Subcontractor
4. Site Clearance by GOV
5. Monitoring Report on Site Clearance
6. The Location of the Main Entrance and its Permit
7. Internal Procedure of GOV Approval on the Basic Design Report
8. Building Permit
9. Mechanical and Electrical Issues
10. Existing Medical Equipment
11. BMH Master Plan

The final components of the Project, both quantity and specification, will be decided after the analysis in Japan and subject to the approval by the Government of Japan.

Sincerely yours,

Received by



Ichiro Kanagawa
Project Manager
Basic Design Study Team



Ph.D. Ngo Toan Dinh
Vice Director
Bach Mai Hospital

**Technical Note
for Basic Design Study on the Project
for the Improvement of Bach Mai Hospital
in Viet Nam**

1. Work Schedule

See the Attachment-1

2. Sketch Plan with Comments

Team showed Sketch Plan (Attachment-2) based on the discussions to BMH, and BMH found the Plan is reasonable and made following comments;

2-1 Medical offices---managers for 16 departments including clinical and paraclinical departments need individual offices.

2-2 Director's and 3 vice directors' offices are desirable to have individual toilets.

2-3 Pediatric ward needs a play room.

2-4 Maintenance office is necessary

3. Topographical Survey and Boring Test by Subcontractor

A subcontractor for the Topographical Survey and Boring Test, Investment Consultancy and Construction Design Company were selected and the subcontractor will carry out the work in the Site.

BMH will give the permission to the subcontractor for the work and will give any necessary guidance to do the work.

The area of Topographical Survey and the points of Teste are shown in the Attachment-3.

4. Site Clearance by GOV

4-1 The area of the Site Clearance is shown in the Attachment-4.

4-2 The Items to be included in the Site Clearance are;

- Demolition of buildings, wall/fence and any other obstacles in the Site Clearance area. The existing trees to be kept will be told by the Draft Report Team.

- Relocation of water supply, sewer and drainage pipes and electrical cabling and wiring within the Site Clearance area.

4-3 Dr. Ngo Toan Dinh, Vice Director, is in charge of the Site Clearance.

4-4 The relocation plan of Institute of Clinical Research in Tropical Medicine will be approved by June '97 and the preparation for the move will start. Site Clearance schedule will be prepared simultaneously.

J.R.

Duy

5. Monitoring Report on Site Clearance

The Monitoring Reports are necessary to be submitted to JICA Hanoi Office, attention to Mr. Okubo, monthly in accordance with the Site Clearance Schedule. Ph.D. Ngo Toan Dinh is the responsible person.

6. The Location of the Main Entrance and its Permit (Attachment-4)

This permit procedure will be through the Building Permit procedure.

7. Internal Procedure of GOV Approval on the Basic Design Report (Attachment-6)

8. Building Permit /Approval Procedure

"Approval of design" shown in the Attachment-7 is the responsibility of BMH. "Approval of total cost estimate" is not applicable for ODA project, however BMH need to report to GOV.

For the smooth implimentation a localconsultant shall be hired by BMH to assist Japanese consultant inpreparing the detail design and to proceed the approval. This localconsultant need to translate the documents and prepare necessary additional documents for the permit/approval procedure.

9. Mechanical and Electrical

Major issues discussed were;

Mechanical--water supply, sewage, medical gas and air-conditioning
Electrical--power supply system, telecommunication system

10. Existing Medical Equipment

10-1 The list of the equipments to be moved to the new building (Attachment-8)

10-2 The responsibility to move the equipment rests on GOV

11. BMH Master Plan

BMH gave a summery of Master Plan to the Team. (Attachment -9)
The Team had discussion on the Master Plan with BMH management and the summery is as shown below:

11-1 The rest of the Master Plan will be fulfilled by GOV eventually.

11-2 The facilities for the Institutes will be improved

Gerontology ;the building will be completed within '97 or early '98.
Clinical Research in Tropical Medicine; the design was finished and BMH is ready to request the budget for the 6 stories as soon as the plan is approved.

Cardiology; after the Neurology Department is moved, the new building would be built.

Mental Health; the construction of new 3 stories building with 100 beds will start next year.

Dermatology: the facility will be renovated soon.

A.R.

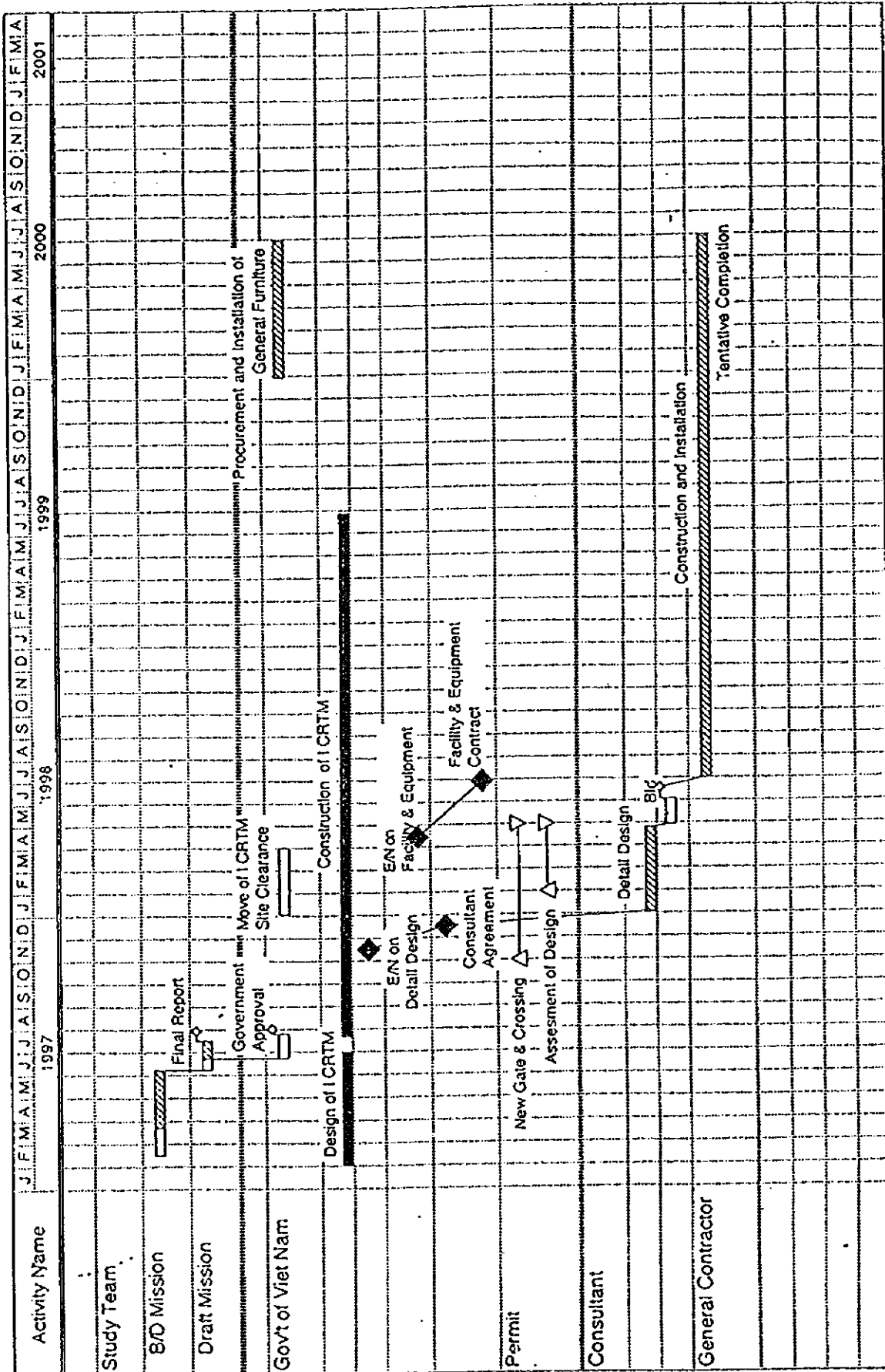
SPH

11-3 The old Bach Mai zone is now under renovation. After the completion of the New zone, A block will be used for ENT, Dental, Ophtalmology and Traditional Medicine, C block will be used for nursary school, its upgraded college and dormitory for 400 students. Central block will be used for administration. Existing ICU building will be renovated and be used for Training Center.

A.K

DMW

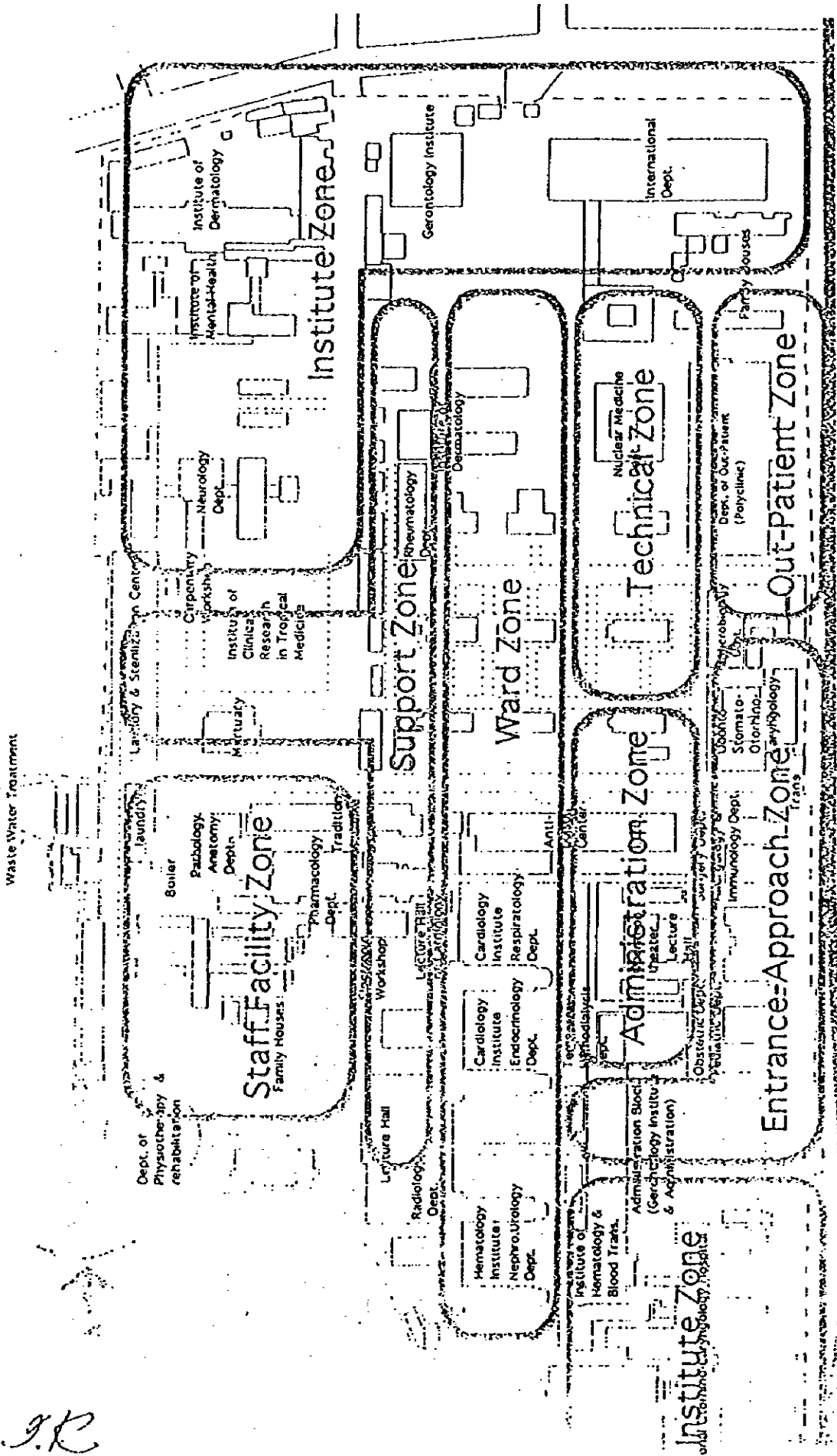
Assumed Schedule for the Implementation of the Project (Tentative)



A. K.

D.M.

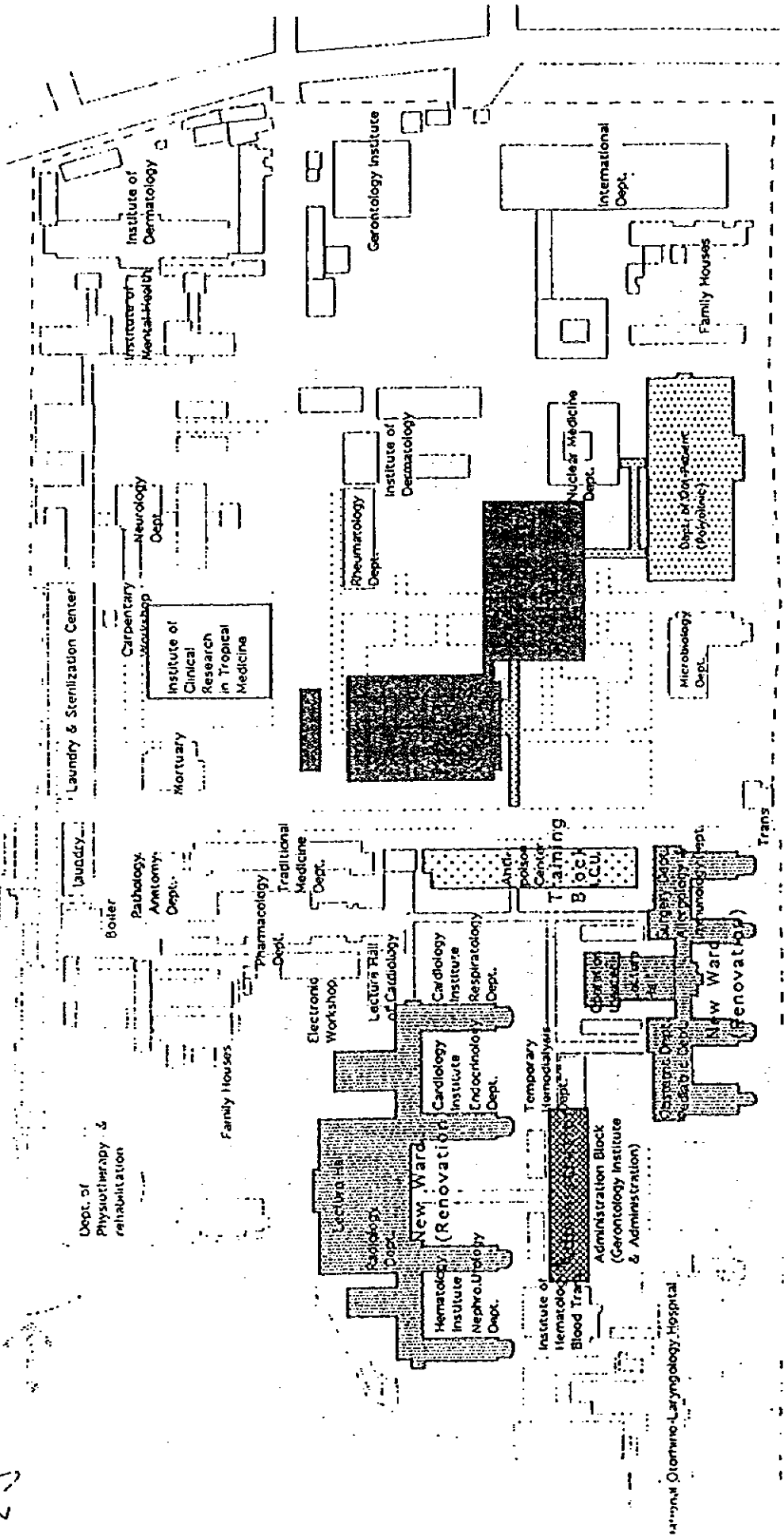
ZONING IMAGE



J.R.

J.M.K.

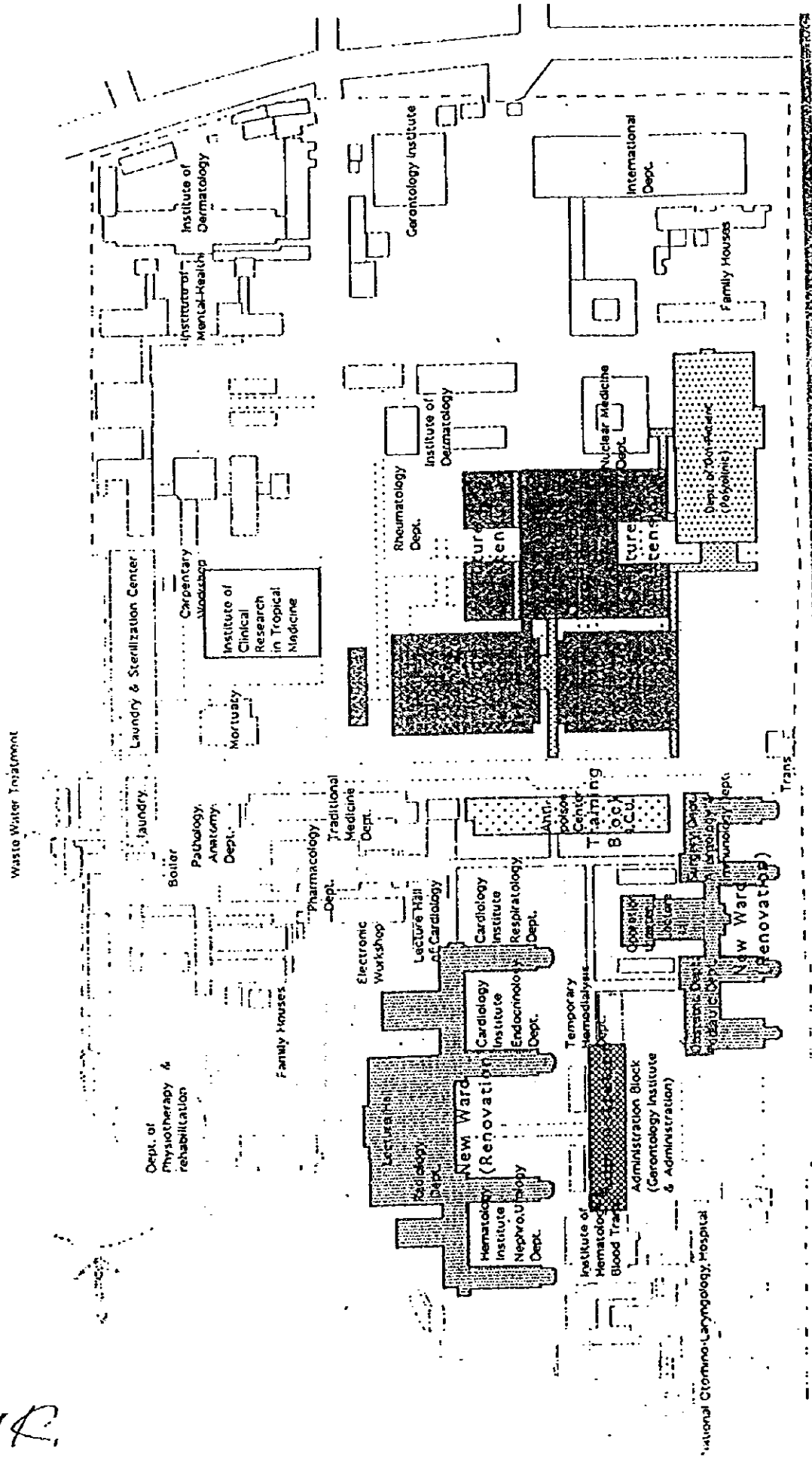
Waste Water Treatment



ASSUMPTION CONCEPT

JK

Dua

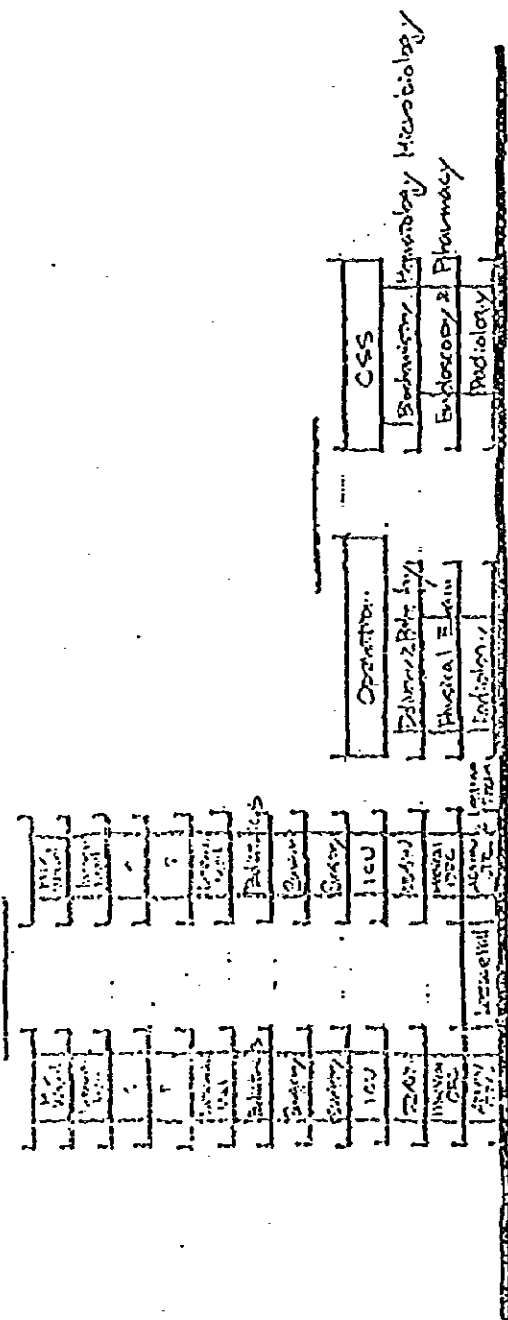


ASSUMPTION CONCEPT
(FUTURE EXTENSION BY BMH)

J.R.

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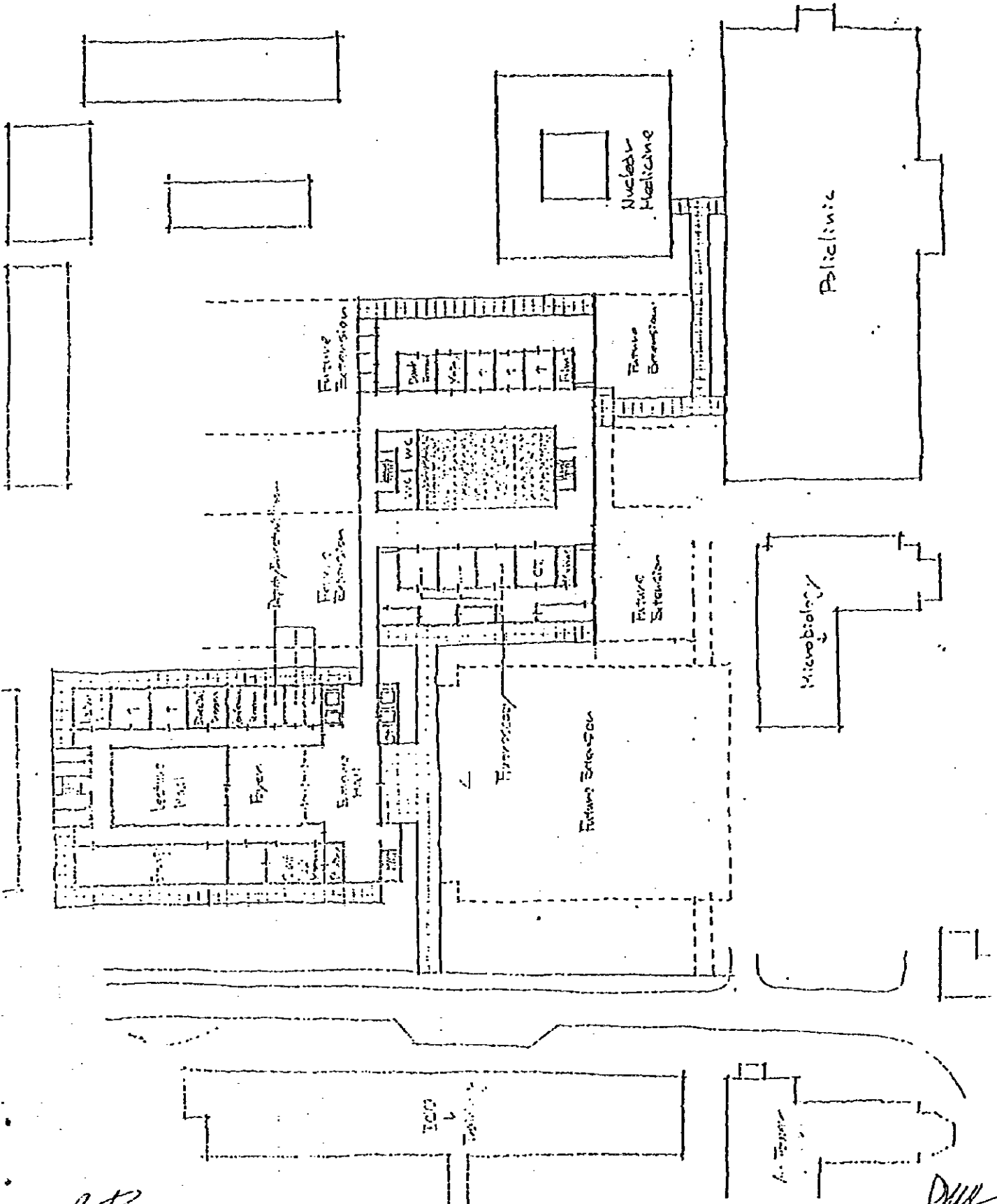
IMAGE
OF
SECTION



J.R.

J.W.

IMAGE
OF
GROUND FL
PLAN



J.R.

J.M.

IMAGE
OF
1st FL
PLAN

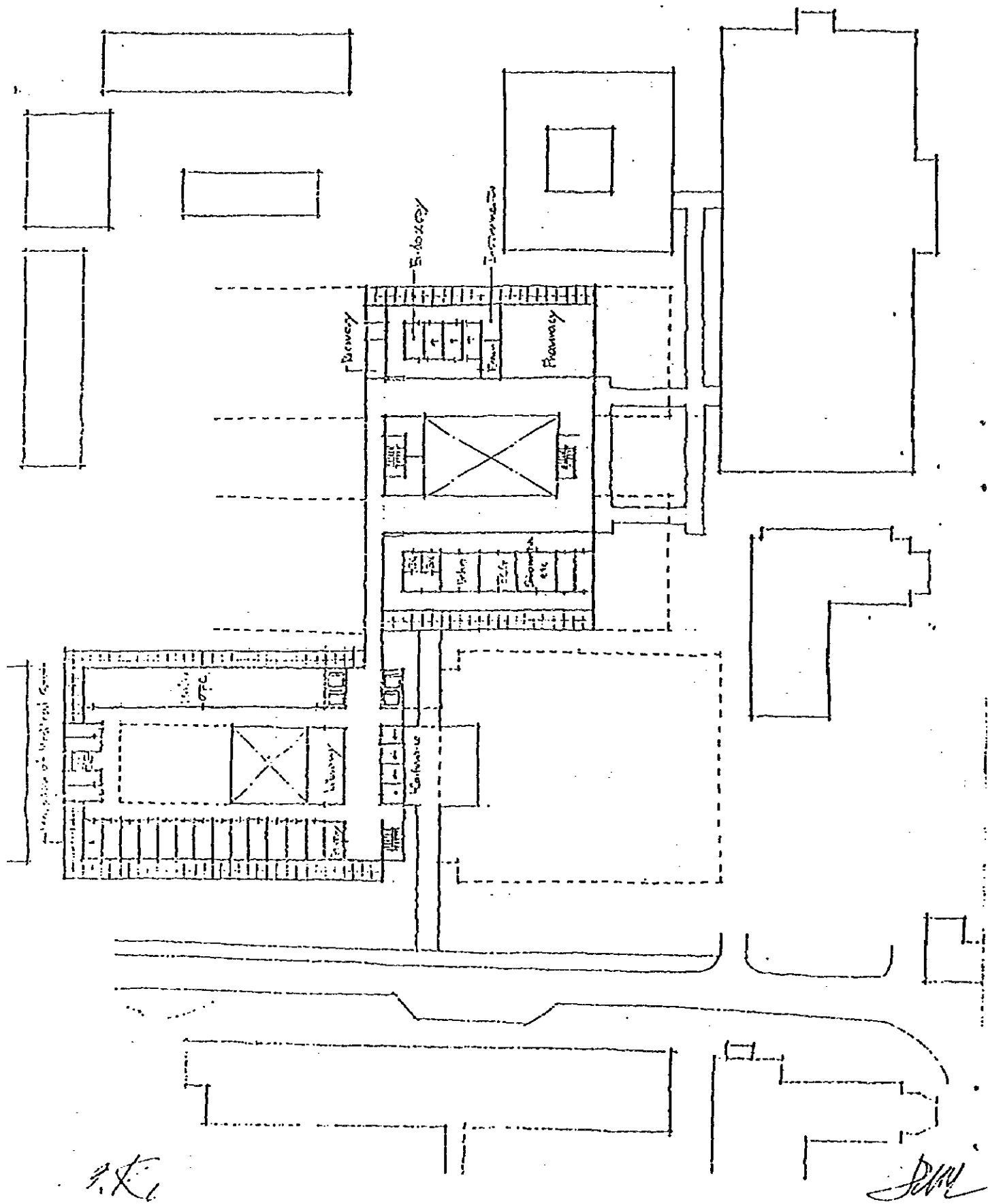
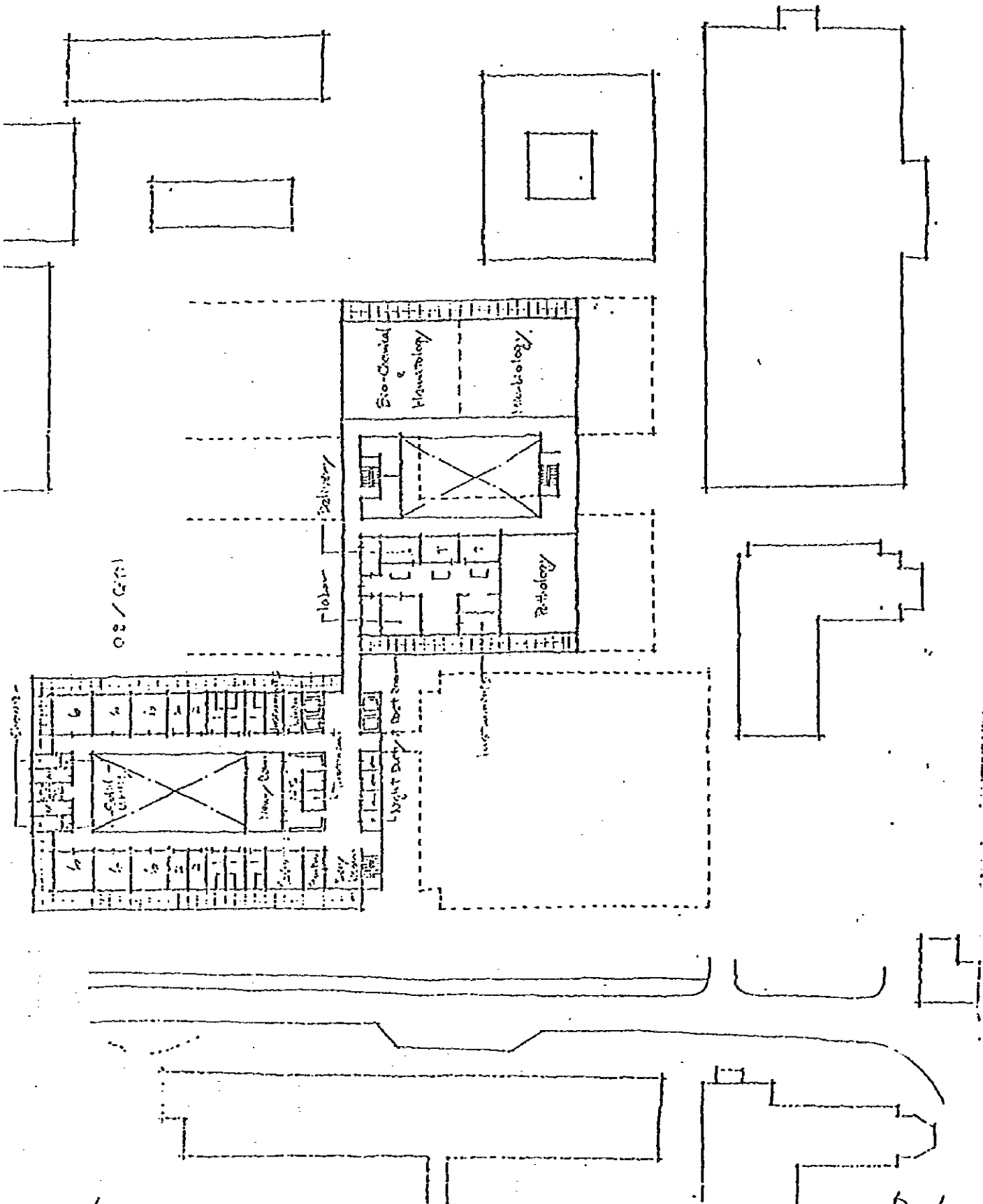


IMAGE
OF
2nd FL
PLAN

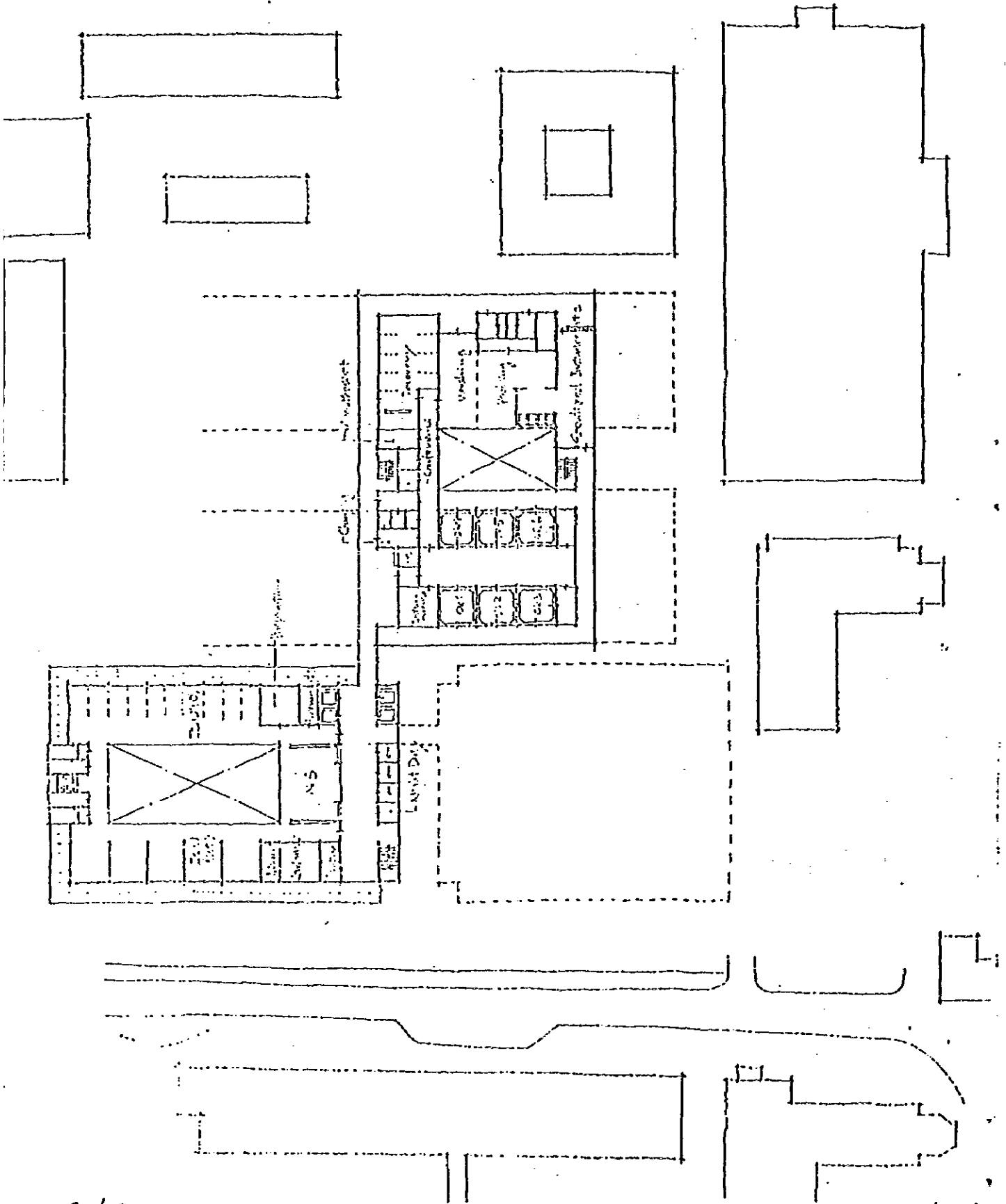


08 / 01

S.K.

D.W.

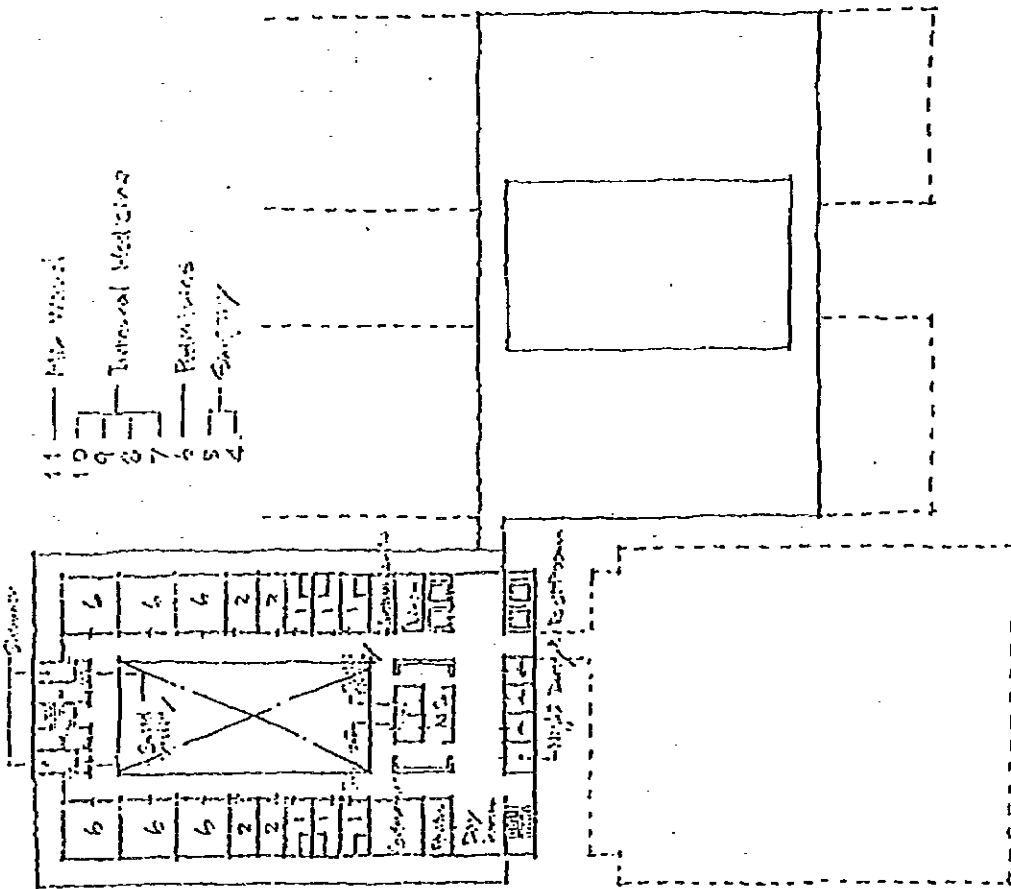
IMAGE
OF
SERIAL
PLAN



PK

JMC

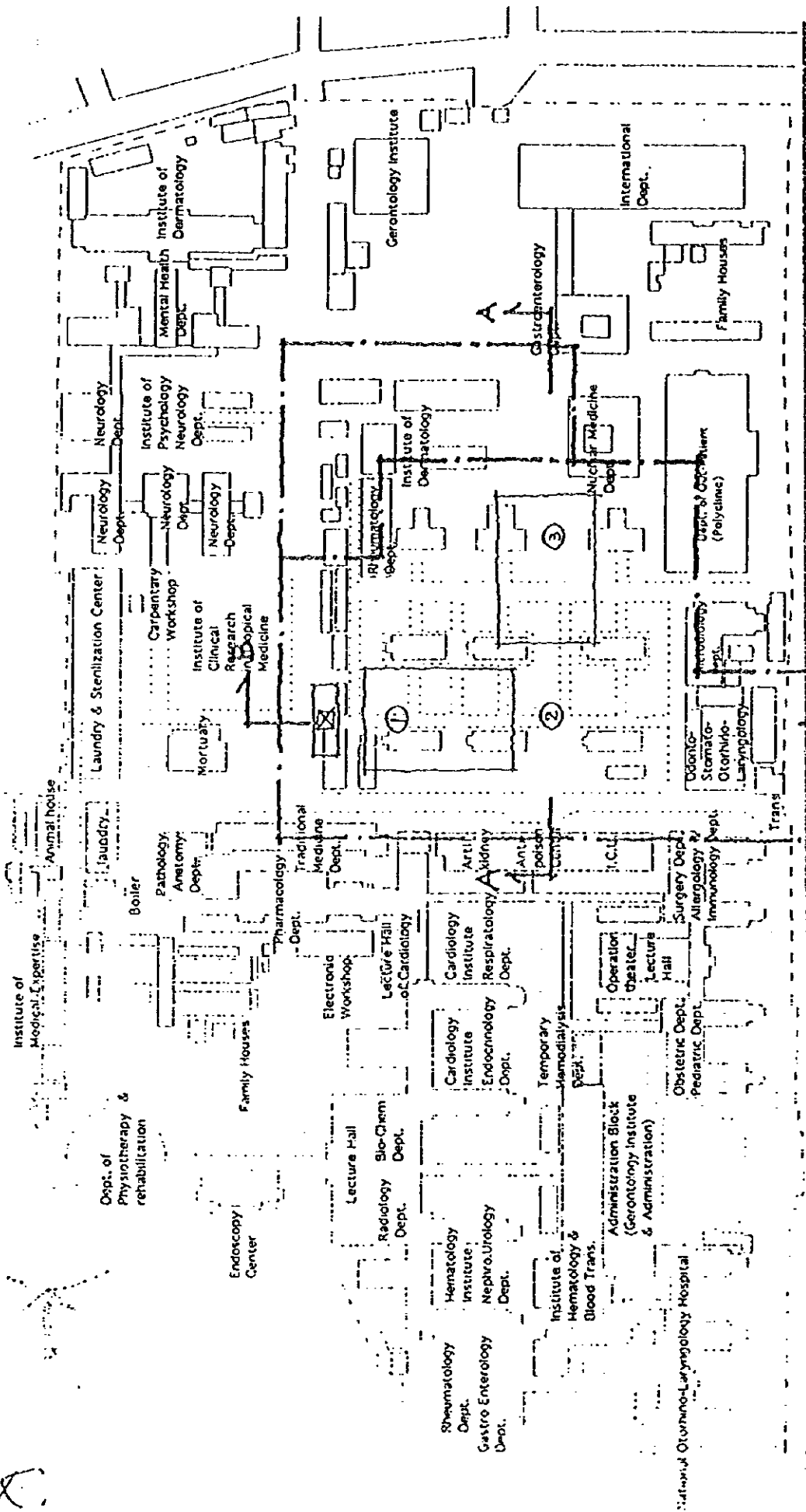
IMAGE
OF
TYPICAL FL
PLAN



J.K.

J.K.

Waste Water Treatment

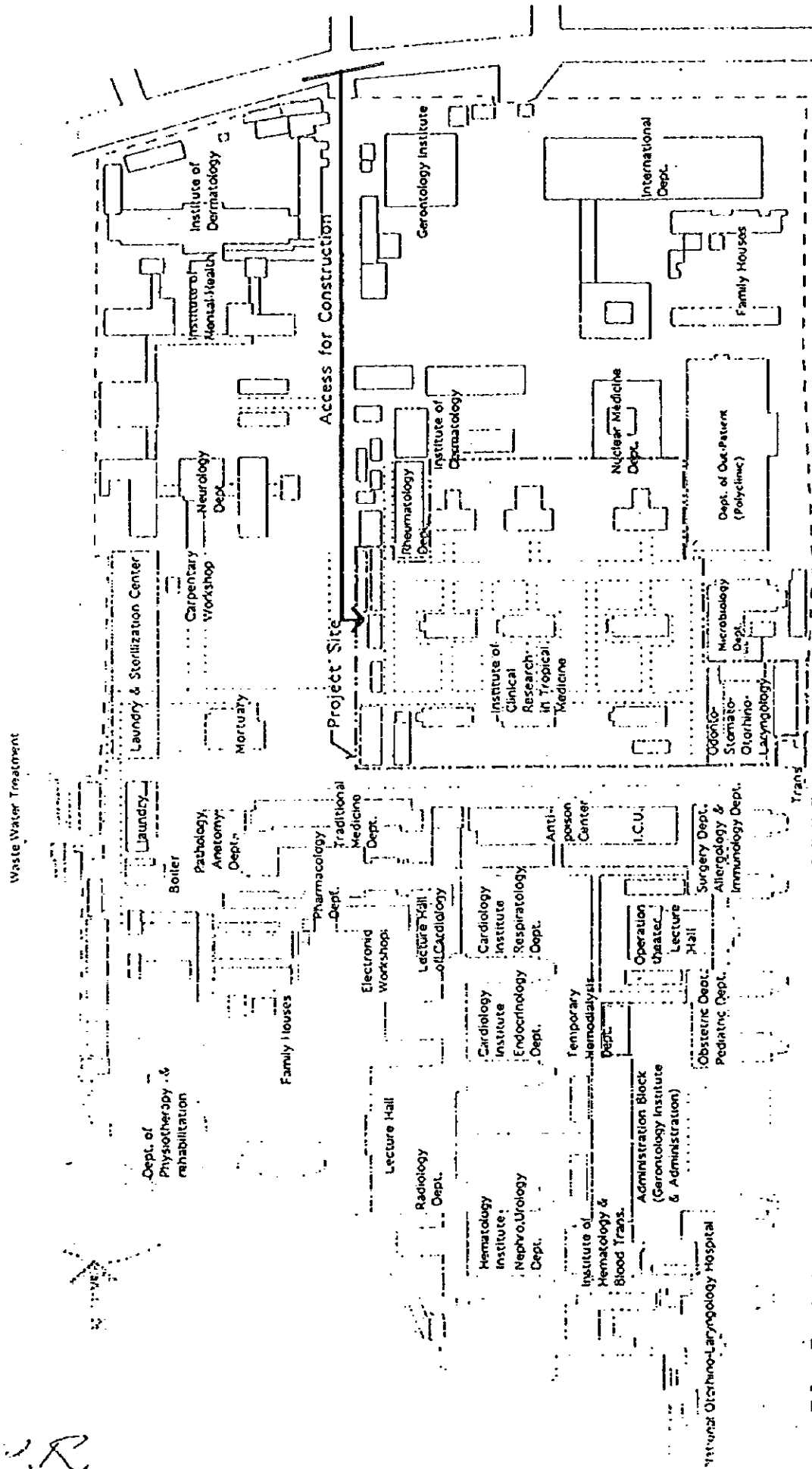


○ : Plain Survey
 ⊠ : Topographical Section
 ⊠ : Loading Test Section

Level of Road

Note: Plain Survey should be including washbasin, staircase and all...

Handwritten signature/initials



THE AREA OF SITE CLEARANCE
 THE LOCATION OF MAIN ENTRANCE
 THE ACCESS FOR CONSTRUCTION

▲ Main Entrance

J.M.C.

PROCEDURES FOR SETTING UP A INVESTMENT PROJECT

1. Define the necessity to set up the Investment Project.
2. Report on the Pre-Feasibility Study.
3. Submit the result of the Pre-Feasibility Study to the Ministry of Health and the Ministry of Planning and Investment for approval.
- Submit it to the Government Office. The decision of the Government is not exceeded 20 days from the submission.
4. Report on the Feasibility Study.
5. The Ministry of Planning and Investment appraises the Feasibility Study. Appraisal is not exceeded 45 days.
6. Submit the Feasibility to the Government Office.

58

Med.

PROCEDURES FOR CONSTRUCTION LISENCE

1. Technical design documents and implementing design drawings completed following the regulations.

The time of the completion of this step is decided by Design Consultant Organization.

2. These design documents should have been appraised on design and total estimated cost.

- Appraisal Organization: Appraisal Office of the Construction Ministry
- Duration : not over 40 days

3. After appraisal of design documents, there will be step of approval of design and total estimated cost.

- Approval level: Minister of Ministry of Health
- Duration: not over 15 days

4. When these procedures will be completed, there will be step of submission of documents for the construction lisencc.

Documents for the construction lisencc consists of:

- Proposal for construction lisencc (complete the form)
- 3 sets of design documents, each set consists of:
 - + Drawing of the site location
 - + Surface of the land: scale 1/200 - 1/500
 - + Surface floors: scale 1/100 - 1/200
 - + Drawing of the rain water drainage system and waste water treatment system: scale 1/100 - 1/200
- Decision of the approval of technical design by Authorities
 - + Constriution Lisencc Authority : Hanoi Chief Architecture Office
 - + Duration: not over 45 days

Note:

If the Group A is approved by the Government will be exempted from construction lisencc, but have to complete above procedures.



TECHNICAL BLOCK

Item No.	Department	Equipment Name	Size(W×D×H)	Qty	Type
XBE - 1	Biochemistry Examination	Urine analyzer	450×450	1	Table top
XBE - 2		ELISA system (Reader)	950×530	1	Table top
XBE - 3		ELISA system (Monitor)	450×600	1	Table top
XBE - 4		ELISA system (Printer)	600×350	1	Table top
XBE - 5		Electrolyte analyzer (AVL)	300×250	1	Table top
XBE - 6		Blood gas analyzer (AVL)	400×550	1	Table top
XBE - 7		CO, oxygen analyzer (AVL)	300×500	1	Table top
XBE - 8		Pump for AVL	300 dia.	1	Table top
XBE - 9		Refrigerator	520×500	1	Install
XBE - 10		Spectrophotometer	350×450	1	Table top
XBE - 11		Electric balance	200×320	3	Table top
XBE - 12		Computer	450×600	1	Table top
XBE - 13		Printer	330×300	1	Table top
XBE - 14		Water stiller	590×450	1	Install
XBE - 15		Water purifier	1100×750	1	Install
XBE - 16		Ultrasound washer	1350×650	1	Install
XBE - 17		Drying oven	730×650	1	Table top
XBE - 18		Drying oven	550×480	1	Table top
XBE - 19		Drying oven	530×400	1	Table top
XBE - 20		Autoclave	720×550	1	Install
XBE - 21		Refrigerated centrifuge	940×880	1	Table top
XBE - 22		Calorimeter	440×400	1	Table top
XBE - 23		Spectrophotometer	400×330	1	Table top
XBE - 24		Vacuum refrigerated centrifuge	1020×680	1	Install
XBE - 25		Deep freezer	600×670	1	Install
XBE - 26		Centrifuge	280×370	1	Table top
XBE - 27		Centrifuge	440×550	3	Table top
XME - 1	Microbiological Examination	Cooling centrifuge	530×760	1	Table top
XME - 2		Binocular microscope with camera	250×410	1	Table top
XME - 3		Deep freezer	920×640	1	Install
XME - 4		Deep freezer	860×720	1	Install
XME - 5		ELISA system (Reader)	430×340	1	Table top
XME - 6		ELISA system (Washer)	370×400	1	Table top
XME - 7		ELISA system (Incubator)	230×360	1	Table top
XME - 8		Refrigerator	520×560	1	Table top
XME - 9		Refrigerator	530×520	2	Install
XME - 10		Clean bench	1270×1100	1	Install
XME - 11		Clean bench (New)	1390×750	1	Install
XME - 12		Incubator (New)	630×330	1	Table top
XME - 13		Drying oven (New)	550×570	1	Table top
XPE - 1	Pathological Examination	Refrigerated cryostat	700×650	1	Install
XPE - 2		Rotary microtome	340×480	1	Table top
XPE - 3		Rotary microtome	250×400	1	Table top
XRE - 1	Radiology Examination	General X-ray apparatus		2	Install
XRE - 2		CT scanner		1	Install
XRE - 3		Fluoroscopic X-ray TV unit		2	Install
XRE - 4		Automatic film processor	600×1000	2	Install
XRE - 5		Doppler ultrasound scanner	540×940	1	Mobile
XPY - 1	Physical Examination	EMG	480×480	1	Mobile
XFE - 1	Endoscopy Examination	X-ray film viewer	1140×90×540	1	wall

The list of existing equipment should be moved to the new building

ATTACHMENT-8(2)

TECHNICAL BLOCK

Item No.	Department	Equipment Name	Size(WXDxH)	Qty	Type
XIC - 1	Intensive Care Unit	Patient monitor	400X500	9	Mobile
XIC - 2		Ventilator	700 dia.	1	Mobile
XIC - 3		Ventilator	480X450	8	Mobile
XIC - 4		Ventilator	630 dia.	1	Mobile
XIC - 5		Suction pump unit	480X240	5	Mobile
XIC - 6		Defibrillator	420X530	2	Mobile
XIC - 7		Pulse oximeter	230X270	1	Table top
XIC - 8		Weight scale for ill patient	560X1040	1	Mobile
XIC - 9		Mobile x-ray apparatus	570X1220	1	Mobile
XIC - 10		Endoscopy unit trolley	1050X560	4	Mobile
XIC - 11		Endoscopy light source		2	Mobile
XIC - 12		Endoscopy monitor		2	Mobile
XIC - 13		Endoscopy suction unit		2	Mobile
XIC - 14		Bronchoscope		2	Mobile
XIC - 15		Gastroscope		2	Mobile
XIC - 16		Endoscopy cabinet	480X400	2	Install
XIC - 17		Endoscopy washer	650X660	1	Mobile
XIC - 18		Manual endoscopy washer	610X490	1	Mobile
XIC - 19		Endoscopy cart	740X450	2	Mobile
XIC - 20		Life scope	520X650	1	Mobile
XIC - 21		Ultrasound scanner	370X560	1	Mobile
XIC - 22		X-ray film viewer	1140X90X540	1	wall
XIC - 23		ICU bed (Vietnam made)	770X2100		Mobile
XIC - 24		Endoscopy cart (Vietnam made)	740X450	2	Mobile
XIC - 25		Unbreakable power supply	400X500	1	Table top
XIC - 26		Blood gas analyzer	600X420	1	Table top
XIC - 27		Spectrophotometer	620X490	1	Table top
XIC - 28		Drying oven	520X490	1	Table top
XIC - 29		Copy machine	720X620	1	Table top
XOT - 1	Operation Theatre	Endoscopy system	1080X520	1	Mobile
XOT - 2		Manual endoscopy washing cart	900X460	1	Mobile
XNP - 1	New Born/Premature Nursery	EKG (3channel)	500X350	1	Mobile
XNP - 2		Infant ventilator	560X620	1	Mobile
XNP - 3		Ultrasound scanner	600X420	1	Mobile

JMC

Ministry of Health
Bach Mai Hospital
Our Ref. _____

The Socialist Republic of Vietnam
Independence-Freedom-Happiness

To Whom It May Concern.

BRIEF EXPLANATION ON THE "MASTER PLAN" OF BACH MAI HOSPITAL

1. Functions and Duties of Bach Mai hospital:

- Established in 1911, Bach Mai hospital is the biggest polyclinic hospital in the North of Vietnam. Bach Mai is now the final destination that receives patients from all the other municipal hospitals when they could not be given efficacious treatment from those hospitals.
- Not being well-known as a central hospital with highest creditably in giving medical consultation and treatment, Bach Mai is also the only environment providing special training to help educate students from Hanoi Medical University, improve medical expertise for doctors, nurses ... sent from other provinces. Beside, Bach Mai is running a Medical College to train nurses for Bach Mai itself and for other hospitals.
- Being a very good place for scientific researches, a big number of scientific subjects at national or ministerial lever have been carried out at Bach Mai hospital so far.
- Bach Mai hospital is included many key medical institutes, therefore, the leadership of the hospital in providing guidance of technical skills to other municipal hospitals and clinic centers is very important.
- The hospital is also assigned to carry out the function of international cooperation. Namely, to exchange information on medical expertise and hospital's management with many hospitals and institutes of many countries in the world.
- Due to the said important roles and functions of Bach Mai hospital, the Government of Vietnam has issued "Decision #666/TTg dated October 18th, 1995" in order to work out the basic strategy for the development of the hospital:

Quote:

"To upgrade and develop Bach Mai hospital as one of the top referral hospitals in Vietnam, the only place for medical students from Hanoi Medical University to come for practice. After the completion of this project, Bach Mai hospital will be the top referral polyclinic hospital among others in Northern area, with modern equipment, equivalent to that of other countries in the region. To meet the requirement of medical consultation and treatment for patients in the coming years as well as a long-term period."

Unquote.

1. K.

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2. Details of Development Plan

- Hospital's general scale intended: 1,320 beds
- The estimated investment capital for Development Plan: VND 508 billion
(Background of the above is that our hospital is repeatedly requested by the Ministry to recruit more staff in the near future in order to develop the hospital in accordance with the Government's plan. Therefore, we strongly expect that the number of patients will be sharply increased. However, with the existing conditions of our hospital at this moment, we are very much afraid that there would be in serious shortage of space for patients let alone a big number of hospital staff including those to be newly recruited).

2.1 Hospital's Construction:

- a). Technical Block
- b). Inpatient & Service Ward
- c). Institute of Clinical Research in Tropical Medicine

2.1.1 Construction of Technical Block:

Technical block is expected to be 6 stories with details as follows:

- Central Laboratory included:
 - + Hematology
 - + Bio-Chemistry
 - + Microbiology
 - + Pathology Anatomy
- Imaging Diagnostic Center
 - + E.C.D
 - + E.E.G
 - + Ultrasound
 - + Pneumology Function Exploration
- Endoscopy Center
- Intensive Care Unit
- Operation Theater: about 8 operation theatres intended
- Hemodialysis Dept.: about 20 units intended
- Pharmacy Center
- Blood Bank
- Sterilizing Center
- Administration Section

2.1.2 Inpatient & Service Ward:

The inpatient & service ward is expected to be 9 stories consisting of 4 main departments with approx. 710 beds in total:

- Internal Medicine Division
 - + Pneumology Dept. : 60 beds intended
 - + Gastro-Enterology Dept. : 60 beds ..
 - + Nephro-Urology Dept. : 60 beds ..
 - + Endocrinology Dept. : 60 beds ..
 - + Neurology Dept. : 100 beds ..
 - + Rheumatology Dept. : 60 beds ..
 - + Allergo-Immunology Dept. : 30 beds ..
 - + Hematology Dept. : 60 beds ..

A.K.

DM

- Surgery Division : 100 beds ..
- Pediatric Division : 60 beds ..
- Obstetrics & Gynecology Division : 60 beds ..

2.1.3 Institute of Clinical Research in Tropical Medicine.

Construction for this institute is intended 5-story height, including inpatient ward and teaching area

Thus, upon the completion of implementation of the said "Master Plan", Bach Mai would have been a completed polyclinic hospital with a good lay-out of 4 sections such as:

- 1). The main block which is consisting of Internal Medicine Division, Surgery Division, Obstetric & Gynecology Division and Pediatric Division.
- 2). Institutes located in Bach Mai hospital:
 - Gerontology Institute
 - Venereology Institute
 - Mental Health Neurology Institute
 - Cardiology Institute
 - Clinical Research in Tropical Medicine Institute
 - Hematology & Blood Transfusion Institute
- 3). Other departments in Bach Mai hospital:
 - Rehabilitation Dept.
 - Traditional Medicine Dept.
 - Ododto-Stomadology Dept.
 - Otorhinolaryngology Dept.
 - Ophthalmology Dept.
- 4). Practice and Training Area:
 - Secondary Medical College
 - Practice Center for Medical Student
 - Training Center for Doctors from other hospitals

(END)

S.K.

Jb

JICA