## 1. Member List of the Survey Team

| NAME                  | ROLE                                      | INSTITUTION   |
|-----------------------|---|---|
| Mr. Shinji TOTSUKA    | Team Leader                               | Deputy Director<br>Grant Aid Management Department,<br>Japan International Cooperation Agency   |
| Dr. Hiroshi OHARA     | Technical Advisor                         | Senior Medical Officer,<br>Bureau of International Cooperation,<br>International Medical Center of Japan,<br>Ministry of Health, Labour and Welfare |
| Mr. Masahiro IKAWA    | Project Manager/<br>Architectural Planner | Nihon Sekkei, Inc.  |
| Ms. Shiho SASADA      | Health Sector Surveyor                    | Nihon Sekkei, Inc.  |
| Mr. Hitoshi ITO       | Architectural Designer                    | Nihon Sekkei, Inc.  |
| Mr. Motohiro OKADA    | Facility Planner                          | Nihon Sekkei, Inc.  |
| Mr. Takashi YOZA      | Equipment Planner                         | Medical Engineering & Planning Co. Ltd.   |
| Mr. Kazunori SHIMIZU  | Procurement and Cost Planner              | Nihon Sekkei, Inc.  |
| Mr. Kazunori KATO     | Interpreter                               | Nihon Sekkei, Inc.  |
| Mr. Akihiro TAKAGI    | Facility Planner (Assistant)              | Nihon Sekkei, Inc.  |
| Mr. Sinichi SAKASHITA | Equipment Planner (Assistant)             | Medical Engineering & Planning Co. Ltd.   |

Basic Design Survey (June 22 to July 10, 2003)

### Explanation on Draft Report (September 28 to October 8, 2003)

| NAME                 | ROLE                                      | INSTITUTION   |
|----------------------|---|---|
| Mr. Shinji TOTSUKA   | Team Leader                               | Deputy Director<br>Grant Aid Management Department,<br>Japan International Cooperation Agency   |
| Dr. Hiroshi OHARA    | Technical Advisor                         | Senior Medical Officer,<br>Bureau of International Cooperation,<br>International Medical Center of Japan,<br>Ministry of Health, Labour and Welfare |
| Mr. Masahiro IKAWA   | Project Manager/<br>Architectural Planner | Nihon Sekkei, Inc.  |
| Ms. Shiho SASADA     | Health Sector Surveyor                    | Nihon Sekkei, Inc.  |
| Mr. Hitoshi ITO      | Architectural Designer                    | Nihon Sekkei, Inc.  |
| Mr. Motohiro OKADA   | Facility Planner                          | Nihon Sekkei, Inc.  |
| Mr. Takashi YOZA     | Equipment Planner                         | Medical Engineering & Planning Co. Ltd.   |
| Mr. Kazunori SHIMIZU | Procurement and Cost Planner              | Nihon Sekkei, Inc.  |
| Mr. Kazunori KATO    | Interpreter                               | Nihon Sekkei, Inc.  |
| Mr. Akihiro TAKAGI   | Facility Planner (Assistant)              | Nihon Sekkei, Inc.  |

# 2. Survey Schedule

Basic Design Survey (June 22 to July 11, 2003)

| 3 6/2<br>4 6/2<br>5 6/2 | 6/24 | Mon.<br>Tue. |                               | Ho Chi<br>Mih Hanoi |   |                          |        |                       |                  |        | anoi  |
|-------------------------|------|--------------|-------------------------------|---------------------|---|--------------------------|--------|-----------------------|------------------|--------|-------|
| 4 6/2<br>5 6/2          |      | Tue.         |                               |                     |   | Courtesy call to Embas   | sy of  | Japan (EOJ)/JICA, MOH |                  |        |       |
| 5 6/2                   | 6/25 |              | Narita BKK<br>Hanoi           |                     | Naria Bangkok Hanoi         Courtesy call to Embassy of Japan (EOJ)/JICA, MOH         Hanoi Hue<br>Meeting with Huc Central Hospital (HCH)         Meeting with HCH         Meeting with HCH         Discussion with HCH, Discussion on Minutes         Team Meeting         hue Hanoi Hue         Site Survey (HCH)         Intel Stee Survey (HCH)         Meeting with HCH         Site Survey (HCH)         Intel Stee Survey (HCH) |                          |        |                       | Hanoi            | Hue    |       |
|                         |      | Wed.         | EOJ/JICA,<br>MOH<br>Hanoi Hue |                     |   | Meeting with             | нсн    | ł                     |                  |        |       |
| 6 6/                    | 6/26 | Thu.         |                               |                     |   | Meeting with HCH         |        |                       |                  |        |       |
|                         | 6/27 | Fri.         |                               |                     |   | Meeting with HCH         |        |                       |                  |        |       |
| 7 6/3                   | 6/28 | Sat.         |                               |                     | Discuss   | ion with HCH, Discussion | on M   | linutes               |                  |        |       |
| 8 6/2                   | 6/29 | Sun.         |                               |                     | Hue Hanoi   |                          |        | Team Meeting          | Narita Hano<br>i | Hue    | Hanoi |
| 9 6/3                   | 6/30 | Mon.         | На                            |                     |   |                          |        | Site Survey (HCH)     | Hanoi Hue        |        |       |
| 10 7/                   | 7/1  | Tue.         | Hanoi<br>Phnom Penh           |                     |   | Hanoi Hue                |        | Site Survey (HCH)     |                  | Hanoi  | Hue   |
| 11 7,                   | 7/2  | Wed.         |                               |                     |   |                          |        | Site Survey (HCH)     |                  |        |       |
| 12 7/                   | 7/3  | Thu.         |                               |                     |   |                          |        | Meeting with HCH      |                  |        |       |
| 13 7/                   | 7/4  | Fri.         |                               |                     |   |                          |        |                       |                  |        |       |
| 14 7/                   | 7/5  | Sat.         |                               |                     |   |                          |        |                       |                  |        |       |
| 15 7/                   | 7/6  | Sun.         |                               |                     |   |                          | Т      | eam Meeting           | Market<br>Survey | Mee    | ting  |
| 16 7/                   | 7/7  | Mon.         |                               |                     |   |                          | Mee    | eting with HCH        | Market<br>Survey | Mee    | ting  |
| 17 7/                   | 7/8  | Tue.         |                               |                     |   | Με                       | eeting |                       | ndum)            |        |       |
| 18 7/                   | 7/9  | Wed.         |                               |                     |   |                          | Rep    | ort to JICA/EOJ       | Market           | Survey |       |
| 19 7/                   | 7/10 | Thu.         |                               |                     |   |                          |        |                       | ·                |        |       |
| 20 7/                   | 7/11 | Fri.         |                               |                     |   |                          |        | Narita                |                  |        |       |

## Explanation on Draft Report (September 28 to October 8, 2003)

| _  |      |      |   |  |  |  |  |  |
|----|------|------|---|--|--|--|--|--|
| 1  | 9/28 | Sun. | Narita (Bangkok) Hanoi  |  |  |  |  |  |
| 2  | 9/29 | Mon. | Courtesy call to Embassy of Japan (EOJ)/JICA, Ministry of Health (MOH), Ministry of Planning and Investment (MPI) |  |  |  |  |  |
| 3  | 9/30 | Tue. | Hanoi Hue<br>Explanation of Draft Report to Hue Central Hospital (HCH)  |  |  |  |  |  |
| 4  | 10/1 | Wed. | HCH (Design Conditions, Architectural Plan, Facility Plan, Equipment Plan, Scope of Works)                        |  |  |  |  |  |
| 5  | 10/2 | Thu. | HCH (Operation & Maintenance Plan, Personnel Plan, Schedule after E/N)  |  |  |  |  |  |
| 6  | 10/3 | Fri. | Draft of Minutes of Meetings Varket Survey)   |  |  |  |  |  |
| 7  | 10/4 | Sat. | Discussion with HCH, Draft of Minutes of Meetings, Survey of Project Site Market Survey)                          |  |  |  |  |  |
| 8  | 10/5 | Sun. | Hue Hanoi   |  |  |  |  |  |
| 9  | 10/6 | Mon. | Signing on Minutes of Meetings at MOH, Report to EOJ/JICA Varket Survey)  |  |  |  |  |  |
| 10 | 10/7 | Tue. | Hanoi (Bangkok)   |  |  |  |  |  |
| 11 | 10/8 | Wed. | Narita  |  |  |  |  |  |

#### 3. List of Party Concerned in the Recipient Country

#### 1. Viet Nam Side

| 1-1. | Ministry of Planning and Investme | ent: MPI  |
|------|-----------------------------------|---|
|      | Mr. Ho Minh Chien                 | Deputy Director, Department of Labor and Social |
|      |                                   | - Culture Affairs                               |
|      | Mr. Tran Kim Nguyen               | Senior Expert, Department of Labor and Social   |
|      |                                   | - Culture Affairs                               |
|      | Mr.Nguyen Xuan Tien               | Department of International Economic Relation   |
|      |                                   |   |

1-2. Ministry of Health: MOH
Tran Trong Hai MD. Ph. D
Dire
Tran Thi Giang Huong MD.
Dep
Dr. Do Khang Chien
Dep
Dr. Nguyen Minh Toan

Director General, Department of International Cooperation Deputy Director, Department of International Cooperation Deputy Director, Department of Therapy Deputy Director, Department of Medical Equipment & Construction

1-3. Institute of Metrorology and Hydrology Sub-Institute of Hydrometeorology of Thua Thien Hue
Ms. Dilong Lien Chan Deputy Chief
Mr. Nguyen Lan Chan Head of Precipitation Station
Mr. Nguyen Hui Hai Head of Mid- and Long-term Precipitation Station
Mr. Le Thanh Hai Head of Short-term Precipitation Station

1-4. People's of Committee of Thua Thien Hue Province Mr. Nguyen Van Me Chairman

| 1-5. | Hue Central Hospital       |   |
|------|----------------------------|---|
|      | Prof. Pham Nhu The         | Director of HCH                                     |
|      | Dr. Nguyen Ngoc Luyen      | Vice Director of HCH                                |
|      | Nguyen Duy Thang MD. Ph.D. | Vice Director of HCH                                |
|      | Bui Duc Phu MD. Ph.D.      | Vice Director of HCH                                |
|      | Dr. Van Cong Trong         | General Planning Department                         |
|      | Mr. Hoang Ngoc Son         | Directorial Secretariat & International Cooperation |
|      | Mr. Nguyen Trung           | Construction Department                             |
|      | Mr. Hoang Xuan Thank       | Equipment & Facility Department                     |
|      | Mr. Camh Lam               | Security Department                                 |
|      |                            |   |

| 1-6.  | Construction Bureau of Thua Thi  | en Hue Province  |
|-------|----------------------------------|--|
|       | Mr. Nguyen Van Cao               | Director   |
|       | Mr. Nguyen The Truyen            | Vice Director  |
|       | Mr. Nguyen Duc Thang             |  |
|       |                                  |  |
| 1-7.  | Hue Medical School               |  |
|       | Prof. Huynh Van Minh MD          | Chief of Research & International Relations Department |
|       | Nguyen Van Tap MD. Ph.D.         | Chief of Research & International Relations Department |
|       | Mr. Le Minh Dien                 | Chief of Foreign Language Department                   |
| 1-8   | Health Bureau of Thua Thien Hue  | e Province   |
|       | Dr. Nguyen Duc Hue               | Director   |
|       |                                  |  |
| 1-9   | Hue City Hospital                |  |
|       | Ks. Nguyen Guang Hien            | Vice Director  |
|       |                                  |  |
| 1-10  | Thua Thien Hue Construction Co   | mpany  |
|       | Ks. Nguyen Thi Thuy Hoa          | Director   |
|       | Eng. Le Quy Dinh                 | Deputy Director  |
| 2 .12 | apanese Side                     |  |
| 2-1.  |                                  |  |
| 2 1.  | Takuya TAKIGAWA                  | Second Secretary                                       |
|       | Tukuyu Trincortori               | Second Secretary                                       |
| 2-2.  | JICA Vietnam Office              |  |
|       | Fumio Kikuchi                    | Resident Representative                                |
|       | Masato Togawa                    | Senior Deputy Resident Representative                  |
|       | Yuki Hayashi                     | Deputy Resident Representative                         |
|       | Kazuyuki Kobayashi               | Senior Project Formulation Advisor                     |
| 2-3.  | Bach Mai Hospital Project for Fu | nctional Enhancement                                   |
|       | Shuzo Kanagawa                   | Chief Advisor  |
|       | Keiko Kawamura                   | Project Coordinator                                    |
|       | Sachiko Miyoshi                  | Expert on Nursing Management                           |
|       | Masako Tanaka                    | Master of Health Sciences, Pharmacist                  |
|       |                                  |  |

Appendices 4

#### 4-1 MINUTES OF DISCUSSION

### MINUTES OF DISCUSSIONS ON THE BASIC DESIGN STUDY ON THE PROJECT FOR IMPROVEMENT OF FACILIITIES OF THE HUE CENTRAL HOSPITAL IN THE SOCIALIST REPUBLIC OF VIET NAM

In response to a request from the Government of the Socialist Republic of Viet Nam (hereinafter referred to as "Viet Nam"), the Government of Japan decided to conduct a Basic Design Study on the Project for Improvement of Facilities of the Hue Central Hospital (hereinafter referred to as "the Project") and entrusted the study to the Japan International Cooperation Agency (hereinafter referred to as "JICA").

JICA has sent the Basic Design Study Team (hereinafter referred to as "the Team") headed by Mr. Shozo Matsuura, Managing Director of Grant Aid Management Department, JICA and is scheduled to stay in Viet Nam from June 22 to July 10, 2003.

The Team held discussions with the officials concerned of the Government of Viet Nam and conducted a site survey at the study area.

In the course of discussions and site survey, both parties confirmed the main items described on the attached sheets. The Team will proceed to further works and prepare the Basic Design Study Report.

Hanoi, June 30, 2003

Mr. Shozo Matsuura Leader Basic Design Study Team Japan International Cooperation Agency

Dr. Tran Trong Hai MD. PhD. Director Department of International Cooperation Ministry of Health The Socialist Republic of Viet Nam

Prof. Pham Nhu The MD. PhD. Director Hue Central Hospital Ministry of Health The Socialist Republic of Viet Nam

witnessed by

Dr. Duong Duc Ung Director General Foreign Economic Relations Department Ministry of Planning and Investment The Socialist Republic of Viet Nam

#### ATTACHMENT

1. Objective of the Project

The objective of the Project is to contribute for the improvement of the Hue Central Hospital, the top referral hospital with about 1,400 beds in the central region of Viet Nam, through (1)The centralization of examination units for effective operation, (2)The enhancement of the medical services.

2. Project Site

The site of the Project is the Hue Central Hospital, Hue City, Thua Thien-Hue Province.

3. Responsible and Implementing Agency

3-1. The Responsible Agency is the Ministry of Health.

3-2. The Implementing Agency is the Hue Central Hospital.

Items requested by the Government of Viet Nam.

After discussions with the Team, the facility described in Annex-1 and the equipment plan described in Annex-2 was finally confirmed as request by the Vietnamese side. JICA will assess the appropriateness of the request and will recommend it to the Government of Japan for approval.

5. Previous Minutes of Discussions

Both sides reconfirmed the Japan's Grant Aid Scheme of previous Minutes of Discussions of the Preparatory Study signed by the both sides on 21st January, 2003.

6. Schedule of the Study

- 6-1. The consultants of the Team will proceed to further studies in Viet Nam until July 10, 2003.
- 6-2. JICA will prepare the draft report in English and dispatch a mission in order to explain and discuss on its contents around September, 2003.
- 6-3. In case that the contents of the report is accepted in principle by the Government of Viet Nam, JICA will complete the final report and send it to the Government of Viet Nam around January 2004.

7. Other relevant issues

- 7-1. The both sides confirmed the master plan of Hue Central Hospital as described in Annex-3and the proposed construction site for the project.
- 7-2. The Vietnamese side understood that all requests would not be covered in this project because of budgetary constraints of Japanese side. The both sides

Sal

9

confirmed that future extension of the facility should be taken into consideration. The Vietnamese side requested that the Japanese side make a basic design drawings of the targeted facility in accordance with the Vietnamese side's Master plan for the improvement of the hospital, and the team took note it.

- 7-3. The Vietnamese side agreed to secure and allocate the necessary budgets and personnel to operate and maintain the facility and the medical equipment to be supplied by the Grant Aid properly and effectively.
- 7-4. The both side confirmed the priority order of departments and/or functions to be included in the new facility.

1<sup>st</sup> priority: Central Examination Unit (including Operation Theater, ICU, Recovery Room, Laboratories and so on)

2nd priority: Outpatient Department and Emergency Department

3rd priority: Inpatient Ward

The Vietnamese side stressed that the necessity of total floor area more than 15,000 m<sup>2</sup> where could accommodate inpatient ward with 300 beds capacity and requested the Japanese side consider it if the budget permits.

- 7-5. Both sides agreed that the medical equipment would be further examined according to the selection criteria as listed in Annex-4.
- 7-6. The both sides confirmed that the Vietnamese side would prepare for the rooms for 'Direction Office of Healthcare Activity (DOHA)' by reallocation of the facilities after the completion of the project.
- 7-7. The both sides agreed that the Japanese side would inform the Vietnamese side of the contents of the basic design through JICA Viet Nam Office prior to the dispatch of the Draft Report Explanation Team.

Annex-1:Requested functions of the facility

Annex-2:Equipment lists

Annex-3: Master plan(overall facility plan of the hospital)

Annex-4: Selection criteria of equipment

SA:

## Annex - 1 Requested functions of the facility

Central Examination Unit

- Imaging Department
  - (General X-ray, Fluoroscopy etc.)
- Functional Examination (Ultra-sound, ECG, EEG, Spirometer, etc.)
- Endoscopy
- Laboratory
  - (Pathology, Hematology, Biochemistry, Microbiology)
- Operation Theater
- ICU
- Recovery Room
- Sterilization Room for Operation Theater

Outpatient Department

- Out-patient Clinic
- (Internal Medicine, Surgery, Ophthalmology, ENT, Dental)
- Emergency Department

In-patient Ward

- Surgical Ward (Neuro Surgery etc.)

8 R 



| Department          | NO |  | Q'ty |
|---------------------|----|--|------|
| Imergency Room      | 1  | Operating Table (B)                                      | 1    |
| nargancy Room       | 2  | Operating Light (B)                                      | 1    |
| mergancy Room       | 3  | Defibrillator  | 2    |
| mergency Room       | 4  | Ultrasound Scanner                                       | t    |
| mergency Room       | 5  | Ventilator   | 1    |
| margency Room       | 7  | ECG  | 2    |
| mergency Room       | 8  | Blood Gas Analyzer                                       | 1    |
| mergency Room       | 10 | Infusion Pump  | 5    |
| mergency Room       | 11 | Minor Surgical Instrument Set                            | 2    |
| mergency Room       | 13 | Suction Unit   | 4    |
| Imergency Room      | 14 | Table Top Steam Sterilizer                               | 2    |
| mergency Room       | 16 | Ambulance Car  | 2    |
| Surgery             | 7  | Plaster Bandage Table                                    | 4    |
| ental Clinic        | 1  | X-ray Unit for Dental                                    | 1    |
| Nental Clinic       | 2  | Automatic Film Processor                                 | 1    |
| Dental Clinic       | 5  | Dental Laboratory Engine                                 | 4    |
| Dental Clinic       | 6  | Centrifugal Casting Machine                              | 1    |
| Dental Clinic       | 7  | Dental Instrument Set                                    | 1    |
| ental Clinic        | 8  | Hydmulic Flask Press                                     | 1    |
| ental Clinia        | 9  | Model Trimmer  | 1    |
| ental Clinic        | 10 | Laboratory Micromoter                                    | 1    |
| ental Clinic        | 11 | Laboratory Lathe   | 1    |
| ental Clinic        | 13 | Boiling Sterilizer                                       | 1    |
|                     | 15 | Destal Chair Unit  |      |
| ental Clinic        | 16 | Parallel Manometer                                       | 15   |
| ental Clinic        | 10 |  | 1    |
| ental Clinic f:     | 18 | Full Automatic Computed Plastic Furnace<br>Amalgam Mixer | 2    |
| ental Clínic        | 10 | Treatment Vaccum Motor                                   | 1    |
| ental Clinic        | 20 | Ultrasonio Scalar  | 1    |
| phthalmology Clinic |    |  | 1    |
| phthalmology Clinic | 1  | Refracting Unit  | 1    |
|                     | 4  | Cryosurgery Unit   | 1    |
| phthalmology Clinic | 8  | Goniolees  | 3    |
| phthalmology Clinic | 10 | Trial Lens Set   | 5    |
| phthalmology Clinic | 15 | Slit Lamp Microscope                                     | 3    |
| phthalmology Clinic | 16 | Ophthalmoscope   | 3    |
| phthalmology Clinic | 17 | Optometer  | 3    |
| phthalmology Clinic | 18 | Perimeter  | 2    |
| phthalmology Clinic | 19 | Ophthalmoscope   | 2    |
| phthalmology Clinic | 20 | Lensmeter  | 3    |
| phthalmology Clinic | 21 | Fundus Camera  | 1    |
| philalmology Clinic | 22 | Keratometer  | 1    |
| N.T. Clinic         | 1  | ENT Treatment Unit                                       | 3    |
| N.T. Clinic         | 2  | ENT Treatment Chair                                      | 3    |
| N.T. Clinic         | 3  | Audiometer   | 2    |
| N.T. Clinic         | 6  | Nebulizer Unit   | 3    |
| N.T. Clinie         | 8  | Sinuoscope   | 4    |
| N.T. Clinic         | 9  | Microscope for the ENT                                   | 1    |
| N.T. Clinic         | 11 | Stroboscope  | 2    |

| Department              | NO. | Equipment  | Q'iy |
|-------------------------|-----|--|------|
| E.N.T. Clinic           | 13  | Exam and Treat Instrument Set  | 3    |
| Operation Theater       | 1   | C-arm X-ray Unit   | 1    |
| Operation Theater       | 2   | Universal Operating Table  | 8    |
| Operation Theater       | 3   | Orthopedic Operating Table   | 2    |
| Operation Theater       | 4   | Operating Light  | 8    |
| Operation Theater       | 6   | Electro Surgical Unit  | 8    |
| Operation Theater       | 7   | Patient Monitor  | 8    |
| Operation Theater       | 8   | Anesthesia Apparatus with ventilator   | 8    |
| Operation Theater       | 10  | Infant Ventilator  | 3    |
| Operation Theater       | 11  | Operating Microscope   | 3    |
| Operation Theater       | 13  | Defibrillator  | 8    |
| Operation Theater       | 14  | Cryosurgery Unit   | 4    |
| Operation Theater       | 15  | ECG 12ch   | 8    |
| Operation Theater       | 16  | Operating Instrument Set, in which;  |      |
| Operation Theater       | 17  | Digestive Instrument Set   | 2    |
| Operation Theater       | 18  | Orthopedia Instrument Set  | 2    |
| Operation Theater       | 19  | Neurosurgery Instrument Set  | 2    |
| Operation Theater       | 20  | Urology Instrument Set   | 2    |
| Operation Theater       | 21  | Pediatrie Surgery Instrument Set   | 2    |
| Operation Theater       | 22  | Micro Surgery Instrument Set   | 2    |
| Operation Theater       | 23  | Thoracic Surgery Instrument Set  | 2    |
| Operation Theater       | 24  | General Surgery Instrument Set   | 2    |
| Operation Theater       | 25  | Small Operating Instrument Set   | 12   |
| Operation Theater       | 26  | Surgical Scrub Station for 8 O.R.  | 8    |
| Operation Theater       | 27  | Blosd Gua Analyzer   | 1    |
| Operation Theater       | 29  | Suction Unit   | 10   |
| Ophthalmology Clinid    | 6   | Ophthalmie YAO Laser System  | 1    |
| Ophthalmology Clinic    | 7   | Argon Laser Photocosgulator  | 1    |
| Imaging                 | 1   | CT Scanner Multi Slice   | 1    |
| Imaging                 | 2   | Fluoroscopia X-my TV System  | 2    |
| Imaging                 | 3   | General X-ray System   | .4   |
| Imaging                 | 4   | Angiographic X-ray System  |      |
| Imaging                 | 5   | Mobile X-ray Unit  |      |
|                         | 6   | and a second | 2    |
| lmaging                 |     | Automatic Film Processor   | 4    |
| Imaging                 | 8   | Cassette Pass Box  | 4    |
| Imaging                 | 10  | Color Doppler Ultrasound   | 3    |
| Imaging                 | 11  | Color Ultrasound (3 Transducers)   | 3    |
| Sterilization Room      | 1   | High Pressure Steam Sterilizer   | 4    |
| Sterilization Room      | 2   | Ultasonic Cleaner  | 1    |
| Sterilization Room      | 3   | Tube Washer  | 1    |
| Sterilization Room      | 4   | Jet Washer   | 1    |
| Sterilization Room      | 9   | Low Pressure Steam Sterilizer  | 1    |
| Functional Examination* | 1   | Broncho Fiberscope   | 2    |
| Endoscopy               | 2   | Colono Fiberscope  | 1    |
| Endoscopy               | 3   | Gustrointenstinal Fiberscope   | 2    |
| Endoscopy               | 6   | Endoscope CCD Camera System  | 1    |
| Endescopy               | 9   | Endoscope Cabinet  | 1    |

22 FS/4

TR

| Department                       | NO. | Equipment                                       | Q't |
|----------------------------------|-----|---|-----|
| Endoscopy                        | 11  | Eeho Cardiograph 2D                             | 2   |
| Endoscopy                        | 12  | ECG 6 Channels                                  | 2   |
| Endoscopy                        | 13  | ECG 2 Channels                                  | 3   |
| Endoscopy                        | 14  | ECG 1 Channels                                  | 10  |
| Endoscopy + Function Examination | 15  | EEG   | 1   |
| Endoscopy                        | 16  | Electromyograph                                 | 1   |
| Pathology                        | 2   | Rotary Microtome                                | 1   |
| Pathology                        | 4   | Automatic Tissue Processor                      | 2   |
| Pathology                        | 6   | Automatic Slide Stainer                         | 1   |
| Pathology                        | 8   | Slide Warmer                                    | - 3 |
| Pathology                        | 9   | Fluoresoent Microsoope                          | 2   |
| Pathology                        | 11  | Stereoscopic Microtome                          | 2   |
| Pathology                        | 13  | Electronic Balance                              | 3   |
| Hematology(Routine Exam)         | 8   | Refrigerated Centrifuge                         | 2   |
| Hematology(Routine Exam)         | 9   | Autoclave                                       | 2   |
| Hematology(Routine Exam)         | 10  | Incubator                                       | 2   |
| Hematology(Routine Exam)         | 11  | Water Distillation Apparatus                    | 1   |
| Hematology(Routine Exam)         | 12  | Water Purifier                                  | 1   |
| Hematology(Routine Exam)         | 15  | Drying Oven                                     | 2   |
| Biochemistry                     | 1   | Water Distillation Apparatus                    | 2   |
| Biochemistry                     | 2   | Deep Freezer                                    | 1   |
| Biochemistry                     | 3   | Drying Oven                                     | 5   |
| Biochemistry                     | 9   | Automatic Biochemical Analyzer                  | 1   |
| Biochemistry                     | 11  | Automatic Osmorneter                            | T   |
| Microbiology                     | 2   | Safety Cabinet                                  | 1   |
| Microbiology                     | 4   | High Pressure Steam Sterilizer                  | 1   |
| Microbiology .                   | 5   | Automatic Micropipette Set                      | 1   |
| Microbiology                     | 6   | Vertical Sterilizer                             | 2   |
| Microbiology                     | 8   | Water Distillation Apparatus                    | 2   |
| Microbiology                     | 9   | Hot Air Sterilizer                              | 3   |
| Microbiology                     | 11  | Table Top Centrifuge                            | 3   |
| Microbiology                     | 12  | Electronic Balance                              | 4   |
| Microbiology                     | 13  | Water Bath                                      |     |
| Pharmacy                         | 13  | Vertical Autoclave                              | 3   |
| Pharmacy                         | 2   | Hot Air Starilizer                              |     |
| Pharmacy                         | 5   | Precision Balance                               | 1   |
| Pharmacy Pharmocy                | 6   |   | 4   |
| ICU                              |     | Water Distillation Apparatus<br>Central Monitor | 1   |
| 100                              | - 1 | Patient Monitor                                 | 1   |
| 100                              |     |   | 18  |
| icu                              | 3   | Pace Maker                                      | 2   |
| icu                              | 4   | Defibrillator                                   | 2   |
| icu<br>icu                       | 5   | ECO   | 3   |
| ICU                              | 7   | Venulator                                       | 10  |
|                                  | 8   | Pulse Oximeter                                  | 10  |
| ICU                              | 9   | Infusion Pump                                   | 5   |
| ICU                              |     | Syringe Pump                                    | 4   |
| ICU<br>ICU                       | 11  | Ultrasonic Nebulizer                            | 4   |
| icu                              |     | Autoclave, Table-top                            |     |

段

| Department                           | NO. | Equipment                 | Qʻty |
|--------------------------------------|-----|---------------------------|------|
| Recovery Room                        | 2   | Saction Unit              | 5    |
| Recovery Room                        | 3   | Infant Incubator          | 2    |
| Recovery Room                        | 5   | Electric Suction Unit     | 5    |
| Recovery Room                        | 9   | Ventilator                | 10   |
| Recovery Room                        | 10  | Monitor                   | 30   |
| Recovery Room                        | 11  | Defibrillator             | 2    |
| Recovery Room                        | 12  | Syrings Pump              | 30   |
| Recovery Room                        | 13  | Infusion Pump             | 10   |
| Recovery Room                        | 14  | Nebulizer                 | 10   |
| Recovery Room                        | 15  | Infant Ventilator         | 2    |
| Hospital Bed                         | 7   | · Recovery Bed            | 30   |
| Hospital Bed                         | 8   | • ICU Bed                 | 30   |
| Peadiatric                           | 4   | Infant Incubator          | 4    |
| Peadiatric                           | 5   | Phototherapy Unit         | 4    |
| Peadiatric                           | 6   | Neonatal Monitor          | 2    |
| Peadiatric                           | 8   | Oxgen Monitor             | 4    |
| Peadiatric                           | 12  | Bilirubin Azalyzer        | 2    |
| NICU                                 | 3   | Infant Ventilator         | . 2  |
| NICU                                 | 3   | Patient Monitor           |      |
| NICU                                 | 6   | Syringe Pump              | 4    |
| Gynecology-Obstetric (New born).     | 1.  | Infant Incubator          | 4    |
| Gynscology-Obststric (New born)      | 3   | Phototherapy Unit         | 2    |
| Gynecology-Obstetric (New born)      | 4   | Portable Suction Unit     | 4    |
| Gynecology-Obstetric (New borz)      | 5   | Infant monitor            | 2    |
| Gynecology-Obstetric (New born)      | 7   | Infusion Pump             | 4    |
| Gynecology-Obstetric (New born)      | 8   | Bilirubis Analyzer        | 1    |
| Gynscology-Obstetrio*(Delivery room) | 11  | Doppler Eaho Sounder      | 2    |
| Gynecology-Obstetric (Delivery room) | 12  | CTG Manitor               | 2    |
| Gynecology-Obstetric (Delivery room) | 13  | Laryngoscope for Infant   | 3    |
| Oyneoology-Obstetric (Delivery room) | 14  | Ambu bag                  | 3    |
| Gynecology-Obstetric (Delivery room) | 15  | Infant Warmer             | 2    |
| Gynecology-Obstetric (Delivery room) | 16  | Delivery Instrument set   | 1    |
| Gynnoology-Obstetric (Delivery room) | 17  | Vacuum Extractor          | 2    |
| Gynecology-Obstetric (Delivery room) | 18  | Delivery Table            | 5    |
| Gynecology-Obstetric (Delivery room) | 19  | Neonatal PH meter         | 1    |
| Gynecology-Obstetric (Consultation)  | 20  | Colposcope                | 1    |
| Gynecology-Obstetric (Consultation)  | 21  | Colour Ultrasoud Appratus | 1    |
| Oynecology-Obstetric (Consultation)  | 22  | CTO Monitor               | 1    |
| Gynecology-Obstetric (Consultation)  | 23  | Portable Echo Machine     | 1    |

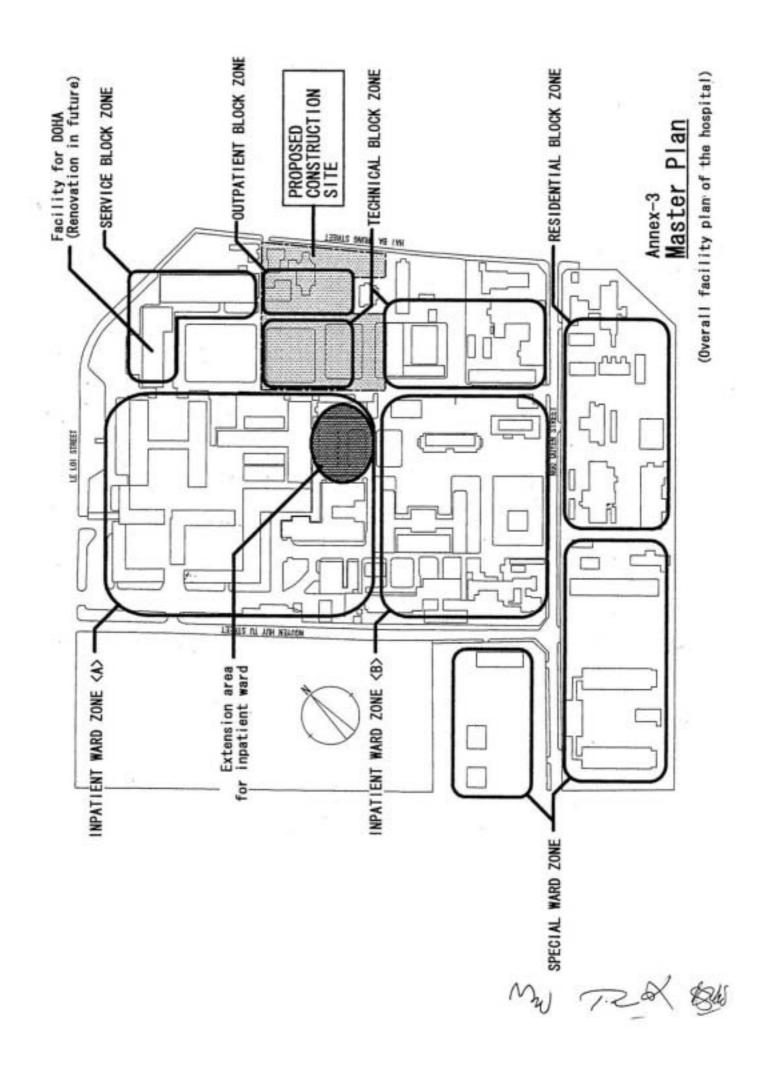
Priority A: Essential Equipment

B : Shall be continued further studied

ι.

C : Better if it is available

2, 7.2 × 1



Planning of Medical Equipment shall be designed based on following Basic Criteria for Selecting the Equipment.

- 1. Criteria for giving High priority
- Equipment that is to be replaced for existing old/decrepit equipment.
- (2) Equipment that is to be supplement for the equipment lacking distinctly in its quantity.
  - (3) Equipment that is required for basic hospital treatment/diagnosis.
  - (4) Equipment that is easy to operate and maintain.
  - (5) Equipment that may give much benefit/effect to hospital.
  - (6) Equipment that is highly cost-effective.
  - (7) Equipment that is proven for its medical usefulness (necessity).
  - (8) Equipment that can be operated by hospital's current technical capabilities.
  - (9) Equipment that can be operated / maintained by hospital staff.
  - (10) Equipment that matches with hospital's social position / function (referral system, local needs).
  - (11) Equipment that can be expected to be useful with other donor's assistance.
  - 2. Criteria for giving Low priority
  - Equipment that required high operation and maintenance cost.
  - (2) Equipment that has limited benefit/effect to hospital.
- (3) Equipment that is lowly cost-effective.
- (4) Equipment that is not for treatment / diagnosis use, but for academic research purpose.
- (5) Equipment that can be substituted with a simple ones.
- (6) Equipment that may cause environmental pollution by its medical waste etc.
- (7) Equipment that is not proven for its medical usefulness (necessity).
- (8) Equipment that is for personal usage by hospital staff (not medical use).
- (9) Equipment that has than minimum required quantity (inefficient, repetitive equipment).
- (10) Equipment that is difficult to locally procure its spare parts and consumables.
- (11) Equipment that cannot be operated by hospital's current technical capability.
- (12) Equipment that seem to be difficult to operate / maintained by present hospital's staff.
- (13) Equipment that does not match with hospital's social position / function (referral system, local needs).
- (14) Equipment that requires large scope of infrastructure work (water, electricity supply, drain, etc.) for its installation.
- (15) Equipment that can be substituted by efficient usage of existing equipment.
- (16) The item, which is not considered as Medical Equipment.
- (17) The item, which can be purchased by the Recipient side.

Criteria when International Standard Exists

Standard of WHO (ex. X-ray equipment, etc) is applicable on case by case basis.

gell by, Ta &