The Arab Republic of
Egypt

PREPARATORY SURVEY REPORT
ON
THE PROJECT FOR CONSTRUCTION OF
OUTPATIENT FACILITY AT CAIRO UNIVERSITY
SPECIALIZED PEDIATRIC HOSPITAL
IN
THE ARAB REPUBLIC OF EGYPT

January 2015

JAPAN INTERNATIONAL COOPERATION AGENCY

THE CONSORTIUM OF
NIHON SEKKEI, INC. AND Binko International LTD.

HM
JR
15-008

PREFACE

Japan International Cooperation Agency (JICA) decided to conduct the preparatory survey and entrust the survey to the consortium of Nihon Sekkei, Inc. and Binko International Ltd.

The survey team held a series of discussions with the officials concerned with the Government of the Egypt, and conducted a field investigation. As a result of further studies in Japan, the present report was finalized.

I hope that this report will contribute to the promotion of the project and to the enhancement of friendly relations between our two countries.

Finally, I wish to express my sincere appreciation to the officials concerned of the Government of the Egypt for their close cooperation extended to the survey team.

January 2015

Ms. Takao Toda
Director General,
Human Development Department
Japan International Cooperation Agency (JICA)

Summary

(1) Introduction

The Arab Republic of Egypt (hereafter called Egypt) exists at northeastern part of the African continent. The land area is approx. 1 million square meter, which is 2.5 times as large as Japanese land area, and it is surrounded by Libya, the Republic of the Sudan and State of Israel, and it faces the Mediterranean Sea at the north side, and the Red Sea at the east side. Most part of the land is covered with deserts except river valleys of the Nile that runs from the south to the north and delta lands. It has a population of 83.66 million (in 2013), and the official language is Arabic.

Egypt abolished its monarchy that had continued since 1922 in 1953, and established the Republic of Egypt. After that, the Suez Canal was nationalized (in 1956), and United Arab Republic was established by the union with Syria (in 1958), and it had emerged as a leading country of Arab countries. The country name was changed to Arab Republic of Egypt in 1971, and it has not been changed until now. The dictatorship that had continued for 30 years ended by "Egyptian Revolution" in 2011, but political turmoil continued after that. Egypt is positioned as a developing country, and its Human Development Index is ranked 112th among 186 countries (UNDP, Human Development Report 2013), and there still are challenges in various areas such as education, health and income.

(2) Background and Overview of the Project

Cairo University Specialized Pediatric Hospital of Egypt (hereafter called "CUSPH") has played a central role in pediatric care for poor classes as a public medical and educational institute and a top referral specialized in pediatric care in Egypt since it was built in 1982 with grant aid of the Government of Japan. However, with the rapid increase of population and its concentration in urban areas in recent years, patients concentrate at the hospital which has sophisticated techniques and excellent staff from all over the country. The number of outpatients is over the design capacity now, and it places a heavy load on the hospital functions. In addition, the hospital is required to expand the education function as a hospital attached to a university, but educational/training functions are not adequately provided because of insufficient facilities.

On the other hand, problems such as insufficiency of medical equipment, medicine, etc. at public medical institutions and insufficiency of special doctors in local areas are pointed out with regard to supply of health and medical care service in Egypt. The number of doctors and nurses per 10,000 people are below the average value of member countries of Organization for Economic Cooperation and Development (hereafter called OECD). In order to improve such conditions, Ministry of Public Health and Population planned "Health Sector Reform Program (hereafter called HSRP)" in 1997 with assistance from the World Bank, USAID and EU, and set up a long-term strategy for the coming 20 years. HSRP aims at improvement of fairness, efficiency and quality in provision of health and medical care services, and expresses to tackle 6 main tasks: (1) development of health and medical care institutes, (2) development of health sector infrastructure, (3) human resource training, (4) health and medical care service reform, (5) reform of financial resources for health and medical care and (6) reform of the pharmaceutical sector. This project is highly related to "(3) human resource training" and "(4) health and medical care service reform" among them.

Under the circumstances above, the Egyptian government requested to implement a grant aid project, "Specialized Pediatric Hospital Day Care Center- Cairo University", for constructing the Outpatient Facility with a training function in 2006.

Upon receipt of the request above, JICA implemented preliminary survey for verifying necessity and appropriateness of the detail of request in 2008. Based on the survey result above, the Egyptian government requested to procure mechanical equipment and materials for construction of an outpatient ward specialized in internal medicine with training/ rehabilitation functions (hereafter called "Outpatient Facility") and improvement of functions of the facility.

Receiving the result of preliminary survey, JICA implemented preparatory survey for cooperation (basic design) (hereafter called preparatory survey 1) in 2009, but the standard for height limit of buildings of the Egyptian government had not been fixed yet (28m or 36m). Therefore, since it is impossible to implement verification for realizing the detail of request unless the standard for height limit is determined, JICA determined to wait for official response about relaxation of the standard for height limit of buildings from the Egyptian government since September, 2010. About 3 years later, the Government of Japan received an official response from the Egyptian government, "Notification on the cabinet decision to relax the height limit of buildings to 36m", through the Ministry of International Cooperation in November 2013, and it was determined to start this preparatory survey.

The details of request confirmed during the preliminary survey and when starting this survey are described below.

Comparison between the Original , Preliminary, and This Survey Requests

	Original requests (2006)	Preliminary survey Requests (December, 2008)	This survey Requests (upon the start of this survey) (March,2013)
Facility	Gastrointestinal, Orthopedics, Plastic and Reconstructive surgery, Otolaryngology, Ophthalmology, Urology, Neurology, X-ray and others, Examination department, Training room 6-story building + a rooftop, RC structure Approx. 3,950 ㎡	Gastrointestinal, Orthopedics, Plastic and Reconstructive surgery, Otolaryngology, Ophthalmology, Urology, Neurology, X-ray and others, 7-story building + a rooftop, RC structure Approx. 3,082.50 ㎡	Allergy, Chest, Collagen, Tropical, Cardiology, Catheterization, Genetic, Hepatology, General Surgery, Orthopedics, Plastic and Reconstructive surgery, Urology, Neurosurgery, Cardiac Surgery, Post Operative Cardiac Surgery, Ophthalmology, Strabismus, Rheumatic fever, Cardiomyopathy, Arrhythmia, Immunology, General Neurology, Rehabilitation, Laboratories, Training rooms, 7-story building + a rooftop, RC structure Approx. 3,500 ㎡
Medical equipment	Equipment for outpatient clinic, Rehabilitation & Physiotherapy, Physiological test, Ultrasonography, Radiology, Laboratory examination, Internal medicine department, Pharmacy and computers for management of medical information.	Equipment for outpatient clinic, Rehabilitation & Physiotherapy, Physiological test, Ultrasonography, Radiology, Laboratory examination, Internal medicine department, Pharmacy and computers for management of medical information, Training equipment, Total: 128 kinds of equipment. -Main equipment- Whirlpool bath, Quadriceps table, Tilt table, Treatment table, Tredmill, Functional electrical stimulator, Digital X-ray Fluoroscopy system, EEG, EMG, Holter ECG monitoring system, Ultrasound diagnostic apparatus (for abdominal), Echo cardiology system, Biochemistry analyzer, Spectrophotometer, Aggregometer, Blood cell counter, Automatic slide stainer, Fluorescent microscope, ELISA reader with printer, Deep freezer.	Equipment for outpatient clinic, Rehabilitation & Physiotherapy, Physiological test, Ultrasonography, Radiology, Clinical Laboratory examination and Internal medicine department, Training equipment Total: 124 kinds of equipment. -Main equipment- Whirlpool bath, Quadriceps table, Tilt table, Mat platform, , Functional electrical stimulator, Fluoroscopy system, EMG, Holter ECG monitoring system, Ultrasound diagnostic apparatus (for abdominal), Echo cardiology system, Biochemistry analyzer, Spectrophotometer, Aggregometer, Blood cell counter, Automatic slide stainer, Fluorescent microscope, ELISA reader with printer, Deep freezer.

(3) Overview of Preparatory Survey and Contents of the Project

In response to the request above, JICA determined to implement the preparatory survey for cooperation, and dispatched a preparatory survey (Basic design) group for cooperation twice from April 28 to May 16 in 2014 (Field survey 1) and June 7 to June 28 in 2014 (Field survey 2). The survey team checked the state of activities of existing "medical care for outpatients" and "training" of existing CUSPH (hereafter called "the main hospital of CUSPH"), and surveyed the state of use of the main hospital of CUSPH. Based on the result of survey and consideration above, we confirmed the contents of initial requests with Egyptian side, and reconsidered reflecting the plans and requests of Egyptian side. Twenty-two departments including surgery-related departments (see the table above) used to be requested to transfer according to the request we received at the beginning of this survey, but as a result of consideration, the final request was determined to transfer 14 special medical care departments related to internal medicine (Allergy, Chest, Collagen, Tropical, Cardiology, Catheterization, Genetic, Hepatology, Post operative cardiac surgery, Rheumatic fever, Cardiomyopathy, Arrhythmia, Immunology and Neurology), which includes Rheumatic fever, Cardiomyopathy, Arrhythmia and Immunology of the Center for Social and Preventive Medicine (hereafter called "CSPM") and Nneurology of Monira Hospital, which are the special medical care departments that should originally be included in CUSPH. Basic design and preliminary cost estimate of the Project were conducted afterward during analysis in Japan, and explained the Draft Final Report on the Preparatory Survey (hereafter called "draft") conducted in November 2014, this preparatory survey report was prepared.

1) Contents of the Project

Contents of the Project

Category	Contents of the facility	Function, Rooms	
Facility	Outpatient facility (Total area: 3115.10 m^2)	PH floor:	Laundry room, Cleaner room, Generator room
		7th floor:	Training room, Pharmacy, Drug storage, Medical consumables storage, Supplies storage, Director's room, Nursing director's room, Outpatient department manager's room, Office, Staff's changing room, Record storage room
		6th floor:	Hepatology / Tropical, Genetic, Genetic laboratory
		5th floor:	Cardiology, Post operative cardiac surgery, Catheterization, Cardiomyopathy / Aarrhythmia, Rheumatic fever, Cardiac ultrasound laboratory, ECG room
		4th floor:	Neurometabolism / Neuromuscular / Neurology ICU discharged/ Neurology NICU discharged, Neurology, Neuro metabolism laboratory, EMG room, EEG room
		3rd floor:	Allergy / Chest, Immunology / Collagen, X-Ray room, Abdominal ultrasonography room
		2nd floor:	Clinical laboratory (Biochemistry, hematology, immunology, bacteriology), Rehabilitation & Physiotherapy
		1st floor:	Entrance hall, Parking area, Machinery room,etc

2) Procurement of Medical and Training Equipment

The contents as final requested equipment are 131 kinds. From the points of contribution to the quantitative / qualitative improvement of the Outpatient Facility function, 81 equipment are examined with thought that the targeted department in the Project is tertiary level specialized pediatric hospital. The concrete equipment selection policy / criteria are shown as follows

Planned Equipment List

Department	Description
Outpatient clinic	Examining table, Examining Lamp, Ultrasonic Nebulizer, Film illuminator, Weighing scale for infant, Height scale for pediatric, etc.
Neurology	EEG, EMG
Neuro Metabolism Laboratory	Liquid chromatography/ Tandem mass spectrometry, Plate Puncher, Weight, Fumehood, etc.
Clinical laboratory (Biochemistry, hematology, immunology, bacteriology)	5 parts automated cell counter, Automated coagulation analyzer, T.B culture system, Automated blood culture system, Lab fridge (-80℃) , Automated chemistry analyzer, Automated electrolyte analyzer, etc.
Image diagnostic department	X-ray unit, Image printer, CR unit
Training room	Training Tables, Chair, Projector, Simulator Mannequin, etc
Rehabilitation & Physiotherapy	Muscle stimulator, Ultra sound therapy unit, Biofeedback, Balancing table(to be shared with Arrhythmia), Whirlpool bath, Exercise therapy equipment, etc.
Cardiology	Echo machine, Non-invasive monitor, ECG, High signal averaging ECG, Holter ECG, Exercise test(Treadmill), etc.

(4) Construction Period and Approximate Cost for the Project

The period of each process of the Project is assumed to be 3.5 months for detailed design, 3.5 months for tender implementation, and 17 months for construction of the facility and procurement of equipment.

With regard to security of budgets for construction born by Egyptian side, it was confirmed by Cairo University, and was promised to implement for sure with the Minutes of Discussion at the Draft Final report explanation (hereafter called "Minutes"), concluded on 3rd of December, 2014 .

(5) Project Evaluation

1) Relevance of the Project

The Egyptian Government has settled on HSRP which has 6 main objectives below.

a) Development of health and medical care institutions.

b) Development of infrastructure of health sector.

c) Development of human resources.

d) Reformation of health and medical care service.

e) Reformation of financial resources for health and medical care.

f) Reformation of pharmaceutical sector.

This project which contribute to the improvement of infrastructure, pediatric health service, human resource development and improvement of financial resources is consistent with the aims of HSRP.

In addition, "expansion / improvement of the public services" which is the development issue of prioritized area “improvement of the life quality and poverty reduction” is mentioned in “Country Assistance Program for the Arab Republic of Egypt”, and it is accordance with the objects of HSRP.CUSPH which is the targeted facility has experiences of receiving the support both Japanese grant aid (The Project for Construction of Cairo University Pediatric Hospital: 1981~1982, Expansion Project of Cairo University Pediatric Hospital: 1986~1988 and The Project for Rehabilitation of Cairo University Pediatric Hospital: 1995~1996) and technical cooperation (Cairo University Pediatric Hospital Project Phase 1 and 2:1983~1989, 1994~1996, The Pediatric Emergency Care Project: 1999~2002). Therefore, CUSPH is affectionately called “Japan Hospital” by local people, and it is kind of a symbol of Egyptian support in the health sector.

As a result, the relevance of this project is high in terms of concordance between Egyptian development plan and Japanese cooperation policy, the diplomatic viewpoint and the continuity and synergetic effect with the past projects.

2) Effectiveness of the Project

The effects expected by implementing this project are as below. Quantitative and qualitative indicators are proposed as the outcome indicators for measuring the degree of achievement of the target; the year of 2013 is considered as the reference year, and the year of 2020, which is approx. 3 years after the service of this project starts(planned in later half of 2016), as the target year.

① Quantitative indicators

This project holds up dispersion of concentrated patients as an indicator of alleviation of crowdedness adding to the targets of this project, improvement of medical care for outpatients and reinforcement of the education function. As quantitative output indicators, 3 items are listed below.

Quantitative indicators

Effect	Output indicator
Dispersion of the concentrated number of patients	The number of outpatients per area (the main hospital of CUSPH = approx. 1,000 m^2, Outpatient Facility = approx. 1,689 m^2)
Improvement of medical care and diagnosis functions	Increase of the number of samples of examination (Example: general radiography, ultrasound scanning, biochemistry, hematology, electroencephalograph, etc.)
Reinforcement of education functions	The number of trainings implemented at the Outpatient Facility

The following 5 indicators are used for determining the qualitative effect for measuring "improvement of medical care and diagnosis functions" for above mentioned.

Quantitative Effects（improvement of the medical function and treatment diagnosis function）

Index	Charge-free Outpatient care, 2013	Charged Outpatient care ,2013	Base Value	Target Value (2020)
X-ray	5,061		5,061	8,950
Echo（3 machines）	17,445		17,445	20,300
Biochemistry examination	196,037	49,202	189,521	221,740
Hematology examination	21,042	1,182	17,175	18,890
EEG	377		377	2,000

② Qualitative Indicators

Following may be used as qualitative indicators of improvement of functions of the Outpatient Facility by implementation of this project.

- Improvement of patient satisfaction
  Shortening of the line of flow of outpatients and reduction of waiting time will reduce burden on patients and their family, and patient satisfaction will improve.
- Improvement of motivation of medical staff
  Since new facility and equipment will be provided, motivation of medical staff working at this hospital will improve.
- Improvement of educational environment and satisfaction
  Since the space for instructing medical residents and researchers is secured, and the line of flow is improved, the educational environment for OJT during medical care activities and conferences within the hospital will improve, and satisfaction with the educational environment will improve.
- Improvement of capability of medical staff
  Since training will be held constantly and effectively at new training room, capability of medical staff will improve.

Based on above, it is judged appropriateness of this project is high, and effectiveness is expected.

Table of Contents

Preface

Summary

Table of Contents

Location Map/Perspective

Abbreviations

Chapter 1 Background of the Project

1-1 Background of the Request 1

1-2 Natural Conditions 2

1-3 Environmental and Social Considerations 3

1-4 Others 4

Chapter 2 Contents of the Project

2-1 Basic Concept of the Project 5

2-2 Outline Design of the Japanese Assistance 7

2-2-1 Design Policy 7

2-2-2 Basic Plan (Construction Plan/ Equipment Plan) 13

2-2-2-1 Overview of the Project(Review of Request) 13

2-2-2-2 The Outpatient Facility Operational Plan 25

2-2-2-3 Site and Facility Layout Plan 31

2-2-2-4 Architectural Plan 33

2-2-2-5 Structure Plan 43

2-2-2-6 Electrical and Mechanical Plan 46

2-2-2-7 Construction Materials Plan 58

2-2-2-8 Equipment Plan 60

2-2-3 Outline Design Drawing 64

2-2-4 Implementation Plan 72

2-2-4-1 Implementation Policy 72

2-2-4-2 Implementation Conditions 73

2-2-4-3 Scope of Works 74

2-2-4-4 Consultant Supervision 75

2-2-4-5 Quality Control Plan 77

2-2-4-6 Procurement Plan 78

2-2-4-7 Operational Guidance Plan 81

2-2-4-8 Soft Component (Technical Assistance) Plan 81

2-2-4-9 Implementation Schedule 81

2-3 Obligations of Recipient Country 83

2-4 Project Operation Plan 85

2-5 Project Cost Estimation 89

2-5-1 Initial Cost Estimation.....89
2-5-2 Operation and Maintenance Cost 90

Chapter 3 Project Evaluation

3-1 Preconditions.....99
3-2 Necessary Inputs by Recipient Country.....99
3-3 Important Assumptions 100
3-4 Project Evaluation 100
3-4-1 Relevance.....100
3-4-2 Effectiveness.....101

[Appendices]

1. Member List of the Study Team
2. Study Schedule
3. List of Parties Concerned in the Recipient Country
4. Minutes of Discussions (M/D)
5. Reference

Location Map

Cairo University Specialized Pediatric Hospital (CUSPH)

Perspective

List of Figures & Tables

Chapter 1 Background and developments of the Project

Table 1-1 Weather data of Cairo ····· 3

Chapter 2 Detail of the Project

Figure 2-1 Organization chart of CUSPH after completion of the Outpatient Facility ····· 17
Figure 2-2 Environment surrounding the site ····· 31
Figure 2-3 Layout drawing for the planned facilities and surrounding area ····· 32
Figure 2-4 Floor plan for the 1st floor ····· 39
Figure 2-5 Floor plan for the 2nd floor ····· 39
Figure 2-6 Floor plan for the 3rd floor ····· 40
Figure 2-7 Floor plan for the 4th floor ····· 40
Figure 2-8 Floor plan for the 5th floor ····· 41
Figure 2-9 Floor plan for the 6th floor ····· 41
Figure 2-10 Floor plan for the 7th floor ····· 42
Figure 2-11 Boring Pillar Shape Diagram ····· 43
Figure 2-12 Conceptual Diagram of Power Supply System in Section ····· 47
Figure 2-13 Conceptual Diagram of Power Supply System by Single Line ····· 47
Figure 2-14 Conceptual Diagram of Telephone System ····· 49
Figure 2-15 Water supply, hot water supply and sewage piping schematic diagram ····· 53
Figure 2-16 Air conditioning piping schematic diagram ····· 56
Figure 2-17 Air conditioning ducting schematic diagram for building ····· 56
Figure 2-18 Air conditioning ducting schematic diagram for each floor ····· 57
Figure 2-19 Consultant's Supervision Organization. ····· 76
Figure 2-20 Project implementation schedule ····· 82

Table 2-1 Improvement measures and expected effects ····· 6
Table 2-2 Evaluation indicators of the Project ····· 6
Table 2-3 Outline of the Project ····· 7
Table 2-4 Contents of the original request and the final request ····· 14
Table 2-5 Original and Final Requested Contents of Medical equipment and Training equipment ····· 15
Table 2-6 Training plan for the Outpatient Facility ····· 19
Table 2-7 Examination List of Requested Equipment ····· 21
Table 2-8 Specialized clinic department plan at the Outpatient Facility ····· 27
Table 2-9 Estimated number of the Outpatient Facility patients ····· 27
Table 2-10 The draft of new staff placement ····· 30
Table 2-11 Transition of the number of outpatients of the main hospital of CUSPH ····· 33
Table 2-12 The number of patients of the transferred clinics ····· 33
Table 2-13 Floor arrangement for each clinic ····· 34
Table 2-14 Improvement measures for each clinic ····· 35
Table 2-15 Number of consultation booths and beds for treatment in each clinic ····· 36
Table 2-16 Area of the rooms of the Outpatient Facility and each floor area ····· 38
Table 2-17 Table of comparison of foundation construction methods ····· 44
Table 2-18 Live load of main rooms (unit: N/m^2) ····· 45
Table 2-19 Lighting Specification for Main Rooms ····· 48
Table 2-20 Hot water supplied rooms and supply system ····· 51
Table 2-21 Exterior finishing materials and construction method ····· 58
Table 2-22 Interior finishing materials and construction method ····· 59
Table 2-23 Planned Equipment List ····· 60
Table 2-24 Specification of Planned Major Equipment ····· 62
Table 2-25 List of Drawings ····· 64
Table 2-26 Scope of Construction ····· 74
Table 2-27 Procurement plan for major construction materials and equipment ····· 78
Table 2-28 Initiated Operational and Management Instruction ····· 81
Table 2-29 Outline of the proposed facilities ····· 83
Table 2-30 Egyptian side Work and Implementation Schedule ····· 84
Table 2-31 Additional Staff Placement List ····· 85
Table 2-32 Equipment required to engaged a maintenance contract ····· 87
Table 2-33 Summary of Periodical Check of the Equipment ····· 88
Table 2-34 Expenses to be covered by the Egyptian side ····· 89

Table 2-35 Result of estimation for the maintenance and management expenses ····· 90
Table 2-36 Electricity expenses ····· 90
Table 2-37 Telephone charges ····· 91
Table 2-38 Generator fuel expenses ····· 91
Table 2-39 Estimated water and sewage charges ····· 92
Table 2-40 Estimated oxygen gas charges ····· 92
Table 2-41 Estimated natural gas charges ····· 93
Table 2-42 Estimated building and system maintenance expenses ····· 93
Table 2-43 Record in 2013 and Expected CUSPH Budget ····· 93
Table 2-44 Annual Maintenance cost of Medical Equipment (per one unit) ····· 94
Table 2-45 Income from user charge (LE) ····· 95
Table 2-46 Review on the income from user charge, operation, maintenance and management expenses due to implementation of this project (Unit: LE) ····· 97

Chapter 3 Project evaluation

Table 3-1 Quantitative effects of this project ····· 102
Table 3-2 The base value and target value for the improvement of the medical examination and treatment function ····· 102
Table 3-3 Training plan for the Outpatient Facility ····· 105

Abbreviations

National Programs

Abbreviation	Complete Name
HSRP	Health Sector Reform Program

Genaral

Abbreviation	Complete Name
AVR	Automatic Voltage Regulator
CUSPH	Cairo University Specialized Hospital
CSPM	Center for Social and Preventive Medicine
DAC	Development Assistance Committee
EU	European Union
FAO	Food and Agriculture Organization of United Nations
GDP	Gross Domestic Product
GNI	Gross National Income
HC	Health Center
HDI	Human Development Index
ICU	Intensive Care Unit
IMF	International Monetary Fund
IMR	Infant Mortality Rate
JETRO	Japan External Trade Organization
JICA	Japan International Cooperation Agency
NICU	Neo-natal Intensive Care Unit
NGO	Non-Governmental Organization
OECD	Organisation for Economic Co-operation and Development
PACS	Picture Archiving and Communication System
U5MR	Under-five Mortality Rate
UNDP	United Nations Development Programmed
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WHO	World Health Organization

Chapter 1 Background of the Project

Chapter 1 Background of the Project

1－1 Background of the Request

(1) Background of the Request

Cairo University Specialized Pediatric Hospital of Egypt (hereafter called "CUSPH") has played a central role in pediatric care for poor classes as a public medical and educational institute and a top referral specialized in pediatric care in Egypt since it was built in 1982 with grant aid of the Government of Japan. However, with the rapid increase of population and its concentration in urban areas in recent years, patients concentrate at the hospital which has sophisticated techniques and excellent staff from all over the country. The number of outpatients is over the design capacity now, and it places a heavy load on the hospital functions. In addition, the hospital is required to expand the education function as a hospital attached to a university, but educational/training functions are not adequately provided because of insufficient facilities.

On the other hand, problems such as insufficiency of medical equipment, medicine, etc. at public medical institutions and insufficiency of special doctors in local areas are pointed out with regard to supply of health and medical care service in Egypt. The number of doctors and nurses per 10,000 people are 28.3 people and 35.2 people respectively, which is below the average value of member countries of Organisation for Economic Cooperation and Development (OECD), 32,87 people. Above all, the level of nurses is as low as a half of the average value of member countries of OECD. In order to improve such conditions, Ministry of Health and Population planned "Health Sector Reform Program (HSRP)" in 1997 with assistance from the World Bank, USAID and EU, and set up a long-term strategy for the coming 20 years. HSRP aims at improvement of fairness, efficiency and quality in provision of health and medical care services, and expresses to tackle 6 main tasks: (1) Development of health and medical care institutes, (2) Development of infrastructure of health sector, (3) Development of human resources, (4) Reformation of health and medical care service, (5) Reformation of financial resources for health and medical care and (6) Reformation of pharmaceutical sector This project is highly related to "(3) Development of human resources," and "(4) Reformation of health and medical care service " among them.

Under the circumstances above, the Egyptian government requested to implement a grant aid project, "Specialized Pediatric Hospital Day Care Center- Cairo University", for constructing the Outpatient Facility with a training function in 2006.

Upon receipt of the request above, JICA implemented preliminary survey for verifying necessity and appropriateness of the detail of request in 2008. Based on the survey result above, the Egyptian government requested to procure mechanical equipment and materials for construction of an outpatient ward specialized in internal medicine with training/ rehabilitation functions and improvement of functions of the facility.

Receiving the result of preliminary survey, JICA implemented preparatory survey for cooperation (basic design) (hereafter called preparatory survey 1) in 2009, but the standard for height limit of buildings of the Egyptian government had not been fixed yet (28m or 36m). Therefore, since it is impossible to implement verification for realizing the detail of request unless the standard for height limit is determined, JICA

determined to wait for official response about relaxation of the standard for height limit of buildings from the Egyptian government from September 2010. About 3 years later, the Government of Japan received an official response from the Egyptian government, "Notification on the cabinet decision to relax the height limit of buildings to 36m", through the Ministry of International Cooperation in November 2013, and it was determined to start this preparatory survey.

1－2 Natural Conditions

(1) Temperature and Humidity

Cairo is located latitude of 30 degrees 03 minutes north and longitude of 31 degrees 15 minutes east and belongs to desert climate. According to the meteorological data of 2007 to 2010 acquired from the Egyptian Meteorological Authority, the temperature becomes the highest from June to August, and it becomes the lowest in January. The highest temperature ever is 38.4°C (measured in 2010), and the lowest temperature ever is 10.3°C (measured in 2008). Recorded relative humidity ranges from 40 to 60% in June to August, and from 50 to 60% in January.

(2) Rainfall

According to the meteorological data from 2007 to 2010 (there is no data of 2011 or later), the annual rainfall of Cairo is approx. 12mm/year in average, the lowest ever is 2.4mm/year (in 2009), the highest ever is 22.7mm/year (in 2007). The number of days with rain is 6 days/year in average, 1 day/year at the minimum (in 2010), and even at the maximum, it is only 10 days/year (in 2007). Both the rainfall and the number of days with rain are extremely few. Rainfall concentrates in January and February.

(3) Wind direction and Velocity

According to the data of the Egyptian Meteorological Authority, the wind direction is southwest from March to June, and northeast from July to November, and northwest from December to February. Since the southeast wind comes via the Libyan Desert, it accompanies sandstorms called "khamseen". The wind velocity is around 2.5m/s in average, and 25% of the whole is around 1.0m/s, 50% is around 2.5m/s, and 25% is around 4.5m/s.

(4) Earthquakes

The degree of seismic activity is not very high in Egypt, but the south Cairo earthquake of M5.8 occurred on October 12, 1992, and 552 people's lives were lost. In the past earthquake records of neighboring countries of Egypt, the earthquakes of M6.7 (epicenter: the Mediterranean Sea) in September 1955, M7.1 (epicenter: the Red Sea) on March 31, 1969, M4.5 on October 22, 1992 (epicenter: south Cairo), and M7.2 in November 22, 1995 (the Gulf of Aqaba) are recorded.

Table1-1 Weather data of Cairo

Item	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual average
Average maximum temperature(℃)	20.8	22.7	26.4	29.8	33.1	36.9	36.7	37.0	34.7	31.8	27.0	23.0	30.0
Average minimum temperature(℃)	12.3	13.5	15.7	18.0	21.0	24.4	25.7	26.4	24.8	22.6	18.2	14.6	19.7
Maximum average temperature(℃)	23.0	25.8	28.3	30.5	34.2	37.3	37.4	38.4	35.8	33.5	28.9	23.6	31.4
Minimum average temperature(℃)	10.3	11.2	14.4	16.6	20.4	22.9	25.2	25.6	23.5	21.1	17.3	13.1	18.5
Maximum average relative humidity(%)	65.0	70.0	61.0	60.0	60.0	67.0	72.0	71.0	70.0	73.0	70.0	66.0	67.1
Minimum average relative humidity(%)	44.0	37.0	36.0	31.0	30.0	31.0	35.0	39.0	40.0	39.0	42.0	46.0	37.5
Rainfall (mm/month)	1.6	8.5	0.0	0.2	0.0	0.0	0.0	0.0	0.0	1.2	0.5	0.0	11.9 (Total)
Rainfall (mm/month)	1.5	3.3	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.5	0.3	0.0	5.8 (Total)
Average wind direction	NW	NW	SW	SW	SW	SW	NE	NE	NE	NE	NE	NW	

Source: the Egyptian Meteorological Authority (2007-20010 years of statistics, the statistics of the Wind 2007)

1－3 Environmental and Social Consideration

When planning this project, it is examined whether operations after the completion of construction has any serious impact on the surrounding environment and the global environment, and if it is considered there will be any factor which affects the environment, measures will be taken considering the on-site conditions to reduce the impact as much as possible.

(1) Sewage Water

There is no public sewerage at the road in front of the site, but public sewerage is provided in Cairo Governorate. Main pipes of sewerage are planned to be newly constructed at the road in front of the site by Egyptian side for this project.

General waste water from the Outpatient Facility will be directly discharged to the main pipes of sewerage, but since acid or alkali waste water for cleaning and draft chamber waste water will generate from some laboratories, considering the surrounding environment, a waste water treatment facility for neutralization and sterilization will be constructed within the building to discharge such waste water to the main pipes of sewerage after treating the water quality to the same level as general waste water.

(2) Waste

General waste and medical waste are separately collected at the main hospital of CUSPH. General waste is collected by outside contractor everyday. Medical waste is periodically collected by Cairo University (twice/week). The Outpatient Facility will conduct separate collection like the main hospital of CUSPH, and the waste will be treated separately after that, so it is considered there will not be any additional factor which may affect the environment caused by construction of the Outpatient Facility.

(3) Air Pollution

In this project, exhaust gas from the generator concerns air pollution. Since the generator is operated only during blackouts and maintenance, it is considered the impact on air pollution is small.

For the refrigerant used in chillers and air conditioners, the material whose ozone depletion potential and global warning potential are low and locally available will be adopted, and planning will be conducted

considering the global environment.

1－4 Others

Egypt is positioned as a Lower Middle Income Countries, and most of its macroeconomic income depends on tourism revenue, remittances from overseas workers, income from the Suez Canal and oil money. Although the ratio of poor classes decreased from 19.4% in 1995 to 1996 to 16.7% in 1999 to 2000[1], the poverty in the urban area is a serious problem. There is no other hospital than public medical facilities that poor classes can rely on, and improvement of medical care services provided by public medical facilities in urban areas is indispensable for improvement of health of the nation (especially poor classes). By implementation of this project, it is considered it will become possible to provide tertiary medical services with higher quality almost free of charge mainly for poor classes living in the metropolitan area of Cairo.

[1] Country Cooperation Strategy for WHO and Egypt 2010-2014: WHO2010

Chapter 2: Contents of the Project

Chapter 2: Contents of the Project

2－1 Basic Concept of the Project

2－1－1 Overall Goal and Project Purpose

(1) Overall Goal

To improve the pediatric medical service in Cairo Governorate

(2) Project Purpose

The main hospital of CUSPH is a university hospital under the Faculty of Medicine of Cairo University and it forms the pediatric medical institute complex with neighboring Monira Hospital and CSPM to provide a place for education and instructions on clinical knowledge and skills to students and medical staffs. In Cairo Governorate, the capital of the country, the Pediatric Hospital of Faculty of Medicine of Ain Shams National University is also located in addition to the CUSPH; however, the CUSPH has been overwhelming others due to its scale and a great number of specialties.

Over thirty years have passed since the construction of the main hospital of CUSPH, they have troubles to the entire medical function of the hospital by aging of buildings and narrow and limited space, Its influence has particularly appeared in outpatient department in which a large number of patients come.

As the sub-specialties newly generated with the advances in medicine have no space for consultation and specific examination in the CUSPH outpatient department, they are overflowing to hospital wards and neighboring CSPM and the dispersed functions complicate the flow of patients. This not only forces patients and their families to make extra moves but also reduces the work efficiency for the hospital, and therefore it should be improved.

Under the circumstances, this project is to construct Outpatient Facility for internal medicine and procure the medical equipment, aiming to improve the outpatient service and reinforce the education function of the CUSPH.

(3) Expected Effects

1) Effects

By implementation of the following measures to improve the outpatient medical care services and reinforce the education function of the CUSPH is expected to disperse the concentration of patients, improve the consultation and diagnosis function and reinforce the education function.

a) Improvement measures to improve the outpatient medical care services

i) Consolidation of outpatient function dispersed to CSPM Monira Hospital and CUSPH hospital wards

ii) Consideration for averaging the number of patients on each floor of the Outpatient Facility and for avoiding the concentration of patients on the specific floor

iii) Arrangement of sufficient number and space of outpatient consultation rooms and laboratory rooms

iv) Relaxation of congestion by expansion of waiting space

v) Increasing of consultation days and shifting of consultation time

b) Improvement measures to reinforce the education function

vi) Arrangement of the space and equipment to ensure that preceptors can effectively implement training in a consultation room and laboratory room

vii) Arrangement of a training room as a place for conducting training to develop ability of the staff

These improvement measures and the implementation effects are summarized in the table below.

Table 2-1: Improvement measures and expected effects

Improvement measures	Expected effects
ii) Consideration for averaging the number of patients on each floor of the Outpatient Facility and for avoiding the concentration of patients on the specific floor iv) Relaxation of congestion by expansion of waiting space v) Increasing of consultation days and shifting of consultation time	Dispersion of the concentrated number of patients
i) Consolidation of outpatient function dispersed iii) Arrangement of sufficient number and space of consultation rooms and laboratory rooms vi) Arrangement of the space and equipment to ensure that preceptors can effectively implement training	Improvement of the consultation and diagnosis function
vii) Arrangement of a training room as a place for conducting training to develop ability of the staff	Reinforcement of educational functions

Source: Preparatory Survey Team

2) Evaluation indicators of the project

The number of “outpatients per square meter”, “examination patients” and “trainings conducted at the Outpattient Facility” will be used as evaluation indicators to measure the achivemnet of the above expected effects. Those indicators are suggested as the base value year in 2013 and as the target value in 2020 about three years after inauguration in 2017. Table2-2 shows the base value and target value of each index.

Table2-2 Evaluation indicators of the project

Index	Base Value (2013)	Target Value (2020)
The number of outpatients per square meter (person/m^2) (CUSPH=apx1,000m^2, the Outpatient Facility=apx1,689m^2)	89	48
Increase of the number of the examination patients		
X-ray	5,061	8,950
Echo (3 machines)	17,445	20,300
Biochemistry examination	189,521	221,740
Hematology examination	17,175	18,890

EEG examination	377	2,000
The number of trainings conducted at the Outpattient Facility	0	233

- The number of outpatients per square meter

An area of the existing outpatient section in CUSPH including surgical department is about 1,000 ㎡ and the from 3rd floor to 6 floor where the outpatient consultation room will be located at the Outpatient Facility is 1,689 ㎡. The specialized surgery medical department, where does not move to the Outpatient Facility, rehabilitates the existing outpatient section of the CUSPH and uses it. Therefore the effect of the dispersion of the patient concentration can be confirmed by counting the number of

- Improvemnet of the consultation and diagnosis function

Regarding the effect confirmation of the improvement of the consultation and diagnosis function, the number of increase of patient examinations are considered as a result indicator. In particular, it is the examination with using the allocated machines at the Outpatient Facility such as X-ray, echo machine, fully automated chemistry analyzer, automatic cell counter and EEG. The targeted value (after three years from handing-over) was calculated the actual value of the outpatients' examination number in 2013.

2－1－2 Outline of the Project

Outline of the Project is as shown in the Table 2-3.

Table 2-3 Outline of the Project

Project Components	Details of the facilities
The Outpatient Facility	Outpatient depertment for internal medicine, Laboratories, Rehabilitation & Physiotherapy, Training, Administration
Total: 3,115.10 m^2	
Medical Equipment and Materials	Procurement of equipment and materials related to: Outpatient consultation rooms, Laboratories, Rehabilitation & Physiotherapy, and Training

Source: Preparatory Survey Team

2－2 Outline Design of the Japanese Assistance

2－2－1 Design Policy

(1) Basic Policy

The purpose of the Project is to disperse the concentration of outpatients and improve the outpatient medical care services as well as to reinforce the education function by providing a place for training and supplementary lectures not only for students but also for medical staffs in an outpatient consultation room while utilizing the characteristics as the university hospital, through the construction of the Outpatient Facility.

The Projects will be designed based on the following policies, the requests of the Egyptian government, and the results of the field surveys and discussions.

1) Policy regarding the height limit, building coverage, parking area installation obligation

Consultation on the height limit, building coverage and parking area installation obligation has been conducted for the site since the 2010 Cooperation Preparatory Survey 1. As a result of the confirmation of each item through this survey, the planning will be made according to the policy described below.

- Height limit

  Under the road diagonal regulation applied to the site, the maximum building height is GL + 17.55 m (front road width (11.7 m) × 1.5 = 17.55 m); however, the special permission for setting the building height up to GL+36.00 m was approved by the cabinet in November 2013.
  Also, in this field survey, the supporting letters for this cabinet approval have been issued by the Ministry of Housing and the Ministry of Civil Aviation.
  Because confirmation of related ministries and agencies have been obtained, the maximum height limit for this project will be set to GL + 36.00 m for the planning.

- Building coverage

  Although the acceptable building coverage is 65% for the site, a notice to set the acceptable building coverage of this site to 100% was issued to the Governor of Cairo Governorate from the Ministry of Housing in June 2009. As it has been also confirmed by the Inspection Center of the Ministry of Housing that the notice has no expiration date and that it is currently valid, the acceptable building coverage shall be set to 100% for the planning.

- Parking area installation obligation

  The Parking installation obligation to apply to this project was confirmed to Ministry of Housing as follows .

  a) Parking area installation obligation to be applied to this project
  Safety condition for multi-purpose buildings: Part 1 Parking area
  Chapter 1 Section 2-1, Section 2-4, and Appendix (A) (Issued by the Ministry of Housing in 2007)

  b) Building usage under this project
  As this project does not include in-patient wards and operation theaters, the building usage under the Egyptian Code is not for hospital but for clinic.

  c) Calculation standard
  Calculation is performed by excluding non-living rooms (stair rooms, EV shaft, machine rooms, stockrooms, etc.) from the total floor area.

  d) Applicable parking area
  225 m^2 (1st floor)

2) Scale of the proposed facility

The scale of the Outpatient Facility will be set to secure the space meeting the following conditions: the number of patients shall be 25 people or less for consultation per doctor of each specialties; the number of patients and doctors including the university professors of 14 internal medicine clinics to

be transferred; and the training provided by preceptors in a consultation room and laboratory rooms can be effectively implemented. Also, as the construction site is a separate site which is located about three-minute walk from the main hospital of CUSPH, the plan will include independent functions as the facilities by securing rehabilitation & physiotherapy, laboratory and administration sections in addition to outpatient clinics to minimize movement of patients between the main hospital of CUSPH and the Outpatient Facility.

3) To prevent nosocomial infection

Required amount of ventilation shall be secured by the mechanical ventilation in consultation rooms, waiting space and laboratory rooms and appropriate indoor environment shall be maintained for the planning in consideration of nosocomial infection control.

4) Policy on Selection of Equipment

Most of the equipment in the outpatient consultation rooms are hard to use continuously due to frequent troubles and obsolescence by the excess in service life.

Thus it is not enough to perform a health care service as the tertiary level pediatric top referral hospital in therms of both qualitative and quantitative way.

To improve the situation, the basic selection policy in this project prioritizes equipment which is expected to contribute to the qualitative improvement and quantitative expansion for the outpatient medical service through the procurement of necessary equipment for outpatient activities of the targeted clinics and used at the central laboratory and the image diagnostic department for common use.

In the project, necessary equipment is to be selected from the requested equipment in accordance with the following criteria:

a) Equipment for improvement of the quality of the Outpatient Facility function / service
b) Image diagnosis equipment and clinical laboratory equipment which is commonly used at targeted clinics
c) Equipment for l examination and diagnosis which is essential for filling a role as the tertiary medical facilities
d) Examination equipment which would contribute for patients to transfer at the minimum between CUSPH and the Outpatient Facility
e) Equipment which benefits strength of the training function

Equipment which can be procured for oneself such as general furniture and personal computer or no relation with outpatient medical examination and treatment service is excluded.

(2) Natural Conditions

1) Temperature / Humidity

Cairo is located latitude of 30 degrees 03 minutes north and longitude of 31 degrees 15 minutes east and belongs to desert climate. The facilities will be located on the east-west axis with the living

rooms facing the south face to reduce the heat load by the direct sunlight. Also, as the roof has the highest temperature among the outer faces of the building during the time zone of high solar altitude, effective heat insulation will be installed for the roof.

Perforated blocks will be installed for the facade to prevent direct sunlight on the outer walls to reduce the heat load on the indoor environment.

2) Rainfall

Egypt has little rainfall and it has no rainfall at all in the driest period between July and September. Although it has a little rainfall in winter season (January ~ February), the rainfall does not require any rainwater drainage measures and therefore outdoor rainfall drainage plan will not be implemented.

3) Wind direction / Wind power

Cairo has prominent north wind and northeast wind throughout the year. Also, machine rooms and other appropriate rooms to intake outside air shall be located on the east side in consideration of the sand storm (Khamseen) blowing hard from southwest around March to June every year.

4) Natural disasters (earthquakes)

Although earthquake disasters have been historically not frequent in Cairo, the earthquake in the southern part of Cairo in October 1992 caused major damage mainly to brick-built buildings. As a result, the design standards issued by the Egyptian Ministry of Housing incorporated the seismic load and this project shall perform planning according to these design standards.

(3) Socioeconomic Conditions

Although the Egyptian economy had showed a gradual transition in the first half of the 2000s, it had achieved high growth in the last half of the 2000s. However, as a result of domestic economic deterioration due to political uncertainty after the revolution in 2011, the economic growth rate for 2011 and 2012 was the lowest since the 2000s. The International Monetary Fund (hereinafter referred to as “IMF”) indicated the inflation rate of the country as an increase of 11.700% in 2008, 16.200% in 2009, 11.700% in 2010, 11.100% in 2011, 8.60% in 2012, and 8.244% in 2013, and it also projected the future rate as 13.655% in 2014, 9.528% in 2015, and 8.435% in 2016. The preliminary cost estiamte of the Project will set the price fluctuation projection values from the time of estimation (June 2014) to the time of assumes bidding based on the materials issued by the IMF to reflect the values to the estimation unit price.

(4) Construction/Procurement Circumstances or Local Peculiarities/Business Practices

Many buildings under construction are identified in the target place of this project, in Cairo, and the construction situation is sound. As the gasoline price was increased in July 2014, in Egypt, the trend of increase in the price of construction materials are anticipated due to the increase in the transportation cost. Furthermore, as passage of load carrier large vehicles of 7 tons or over is prohibited during daytime in Cairo City as a rule and concrete mixer vehicles and large carrier vehicles cannot be used, it is common to conduct concrete placement work during nighttime. This

project also assumes that concrete placement work shall be conducted during nighttime.

(5) Utilization of Local Companies

As construction works are conducted in many constructions sites of small, medium or large scale by using local workers, there is no problem in the procurement of experienced and skilled labor. This project adopts the design based on the common local construction method, aiming to reduce the construction cost by utilizing local construction companies and abilities of local workers as much as possible. However, as the construction of EEG room, etc. requires relatively high technological capabilities such as shield construction and other appropriate methods, it is necessary to assess the construction management abilities and technological capabilities when choosing local subcontractors.

(6) Operation and Maintenance Capabilities of the Implementing Agency

Maintenance section of the CUSPH is controlled under the Engineering Department of Cairo University. Engineering Department consists of the three sections: a section for electrical facilities; a section for mechanical facilities; and a section for medical equipment, and the number of engineers is totally 20 people consisting of 6 engineers in charge of electrical facilities, 2 engineers in charge of plumbing, 2 engineers in charge of air conditioning, 1 engineer in charge of boilers, 1 engineer in charge of motors, 1 general engineer, 1 person in charge of glass cleaning, and 6 engineers in charge of medical equipment. The engineers work in two-shift of 9:00 ~ 14:30 and 14:30 ~ 9:00 on 24-hour schedules.

1) Facility planning

As the maintenance section keeps the electricity and water consumption records and the charge receipts, it sufficiently serves as the facility management section for the operation of the facilities. Also, as any serious failures or defects have not been found in the electrical facilities of the main hospital of CSUPH, it can be said that maintenance work has been implemented frequently.

In order to facilitate maintenance and management and reduce the running cost, review shall be conducted under this project regarding the selection of equipment with appropriate quality and selection of equipment that can be maintained and managed locally as much as possible.

2) Equipment plan

The medical equipment department consists of two biomedical engineers (25 years experienced expert engineer and junior engineer) and four technicians.

The biomedical engineer identifies the defect contents and decides a method of repair, and then the technician who has diploma performs as for the real repair.

If it is unrepairable in the hospital, the engineering department asks for repair to the manufacture's agent.

Currently only small medical electronic equipment including syringe pump, infusion pump and ultrasonic nebulizer can be repaired in the hospital.

The procurement department in the hospital purchases necessary parts for the repair such as an inexpensive screw distributed general market, but local agents of manufacture can supply originaly

spare parts if included in a maintenance contract.

If not included, Cairo university engineering department financial affairs section pays them after obtaining a quotation from the agent.

Sophisticated medical equipment to be placed at the Outpatient Facility will be engaged a maintenance contract, so that they will be received a periodical and maintenance service by an engineer from the agency

(7) To Set Standards of the Facilities and Equipment

1) Facility planning

Design of this project shall comply with the following standards used in Egypt. Also, planning shall be conducted in consideration of the environment, nosocomial infection control and care for physically disabled people.

- Egyptian Code
- ASTM (American Society for Testing and Materials)
- BS (British Standards)

Also, the Japanese Building Regulations and the Industrial Standards shall be applied to the items for which no standards exist.

2) Equipment plan

Grade of equipment is set in accordance with the following points in principle.

① Among equipment which is suitable for the tertiary level pediatric top referred hospital at outpatient service,following criteria has been applied;

② Equipment which can be operated and maintained at the technical levels of the present medical staff

③ Equipment which can be regularly inspected and repaired by the local agent in the Cairo city

④ Equipment whose chemical reagent and consumables can be easily procured by the hospital with their financial sustainability

⑤ Equipment to be equivalent to that of public medical facilities of the surroundings

(8) Construction/Procurement Method and Construction Period

1) Construction method

General construction method used locally is the method with reinforced concrete column-beam frame, brick-built outer walls and partition walls, and with mortar and paint finish. This local construction method will be adopted to the Outpatient Facility as a rule; however, light-weight partition walls shall be also used for the partition walls to reduce structural load and secure quality with appropriate cost and construction period.

2) Procurement method

Construction materials use locally procured goods as much as possible to facilitate maintenance and control after completion of construction. Third-country procurement is also taken into consideration for some materials and machinery requiring durability for the facilities to examine the construction

method that can secure quality required for the planned facilities.

3) Policy on the construction period

As Egypt belongs to desert climate with a little rainfall, rainfall will not affect the construction period. However, as the construction plan site is located in a crowded area of an urban area and it is also narrow, it is desirable to take into consideration of the construction orders and complicated procedures for carrying in the materials and machinery. The appropriate construction period for this project shall be set to 17 months.

2－2－2 Basic Plan (Construction Plan/Equipment Plan)

2－2－2－1 Overview of the Project(Review of Request)

(1) Transition of the Requests

In the field survey, the activity situation of the outpatient section of the CUSPH was confirmed and the use status was also surveyed to organize the issues. When fixing the final request contents, the initial contents were confirmed and examined with the Egyptian side based on the results of these survey and review. The final request contents, agreed in the consultation with the Egyptian side based on the review results described above, are as shown below.

1) Confirmation of the request contents for the Outpatient Facility

① Transferred clinics

As a result of the consultation for the local survey, a request was submitted in the intermediate period of this survey to change the number of transferred clinics to 14 by excluding a total of 8 clinics, or 7 surgery clinics of the CSUPH and 1 immunology clinic of CSPM, from 22 clinics listed in the original request presented upon the start of this survey. In a response to the request for change, the Survey Team presented a draft of function layout in the 7-floor building facilities legally allowed for the construction plan site based on the survey result of the number of patients and had a consultation with the Egyptian side about a high likelihood of promoting of crowded condition in the case of full transfer of clinics and an increase in the safety concern over the evacuation in emergency. As a result of consultation, the final request to set 14 internal medicine clinics as the transferred clinics described in the Table 2-4 was confirmed.

a) Dispersion of the patient concentration

Transferring of more than 8 clinics agreed in the Cooperation Preparatory Survey 1 (in 2010) is appropriate to increase the effect of dispersion of patient concentration in the main hospital of CUSPH.

b) Consolidation of the related clinics

Despite their relevance, clinics (related to cardiac, cranial nerves, etc.) are dispersed in several facilities of Monira Hospital and the CSPM, and consolidation of these clinics are rational from a stand point of both cosultation services and patient services.

c) Easing of patient concentration in other facilities

Transferring of Specialized clinic departments from Monira Hospital and the CSPM also contributes to the reduction in the patient concentration and the improvement in the consultation services in these facilities.

Table 2-4: Contents of the original request and the final request

Facilities	Specialized clinic department	Original request (upon the start of this survey)	**Request of change (In the intermediate period of this survey)**	**Final request**
Cairo University Specialized Pediatric Hospital (CUSPH)	Allergy	○	○	○
	Chest	○	○	○
	Collagen	○	○	○
	Tropical	○	○	○
	Cardiology	○	○	○
	Catheterization	○	○	○
	Genetic	○	○	○
	Hepatology	○	○	○
	General surgery	○	—	—
	Plastic surgery	○	—	—
	Urinology	○	—	—
	Orthopedic surgery	○	—	—
	Cranial nerve surgery	○	—	—
	Cardiac surgery	○	—	—
	Post operative cardiac surgery	○	—	○
	Ophthalmology	○	○	—
	Strabismus	○	○	—
Center for Social and Preventive Medicine (CSPM)	Rheumatic fever	○	○	○
	Cardiomyopathy	○	○	○
	Arrhythmia	○	○	○
	Dermatology		—	—
	Psychiatry		—	—
	Immunology*	○	—	○
Monira Hospital	Neurology	○	○	○
	Hematology		—	—
	Endocrine secretion		—	—
Total		22	**14**	**14**

Source: Preparatory Survey Team

* Although the immunology clinic is a newly established internal medicine clinic and it should have been established originally in the CUSPH, it has been established in the CSPM due to scale restriction of the facilities of CUSPH. Therefore, this project sets the clinic as the transferred clinic to the Outpatient Facility.

② Training section

Through the preparatory survey at CUSPH, CSPM and Monira Hospital, it was confirmed that clinical practice for resident doctors and nurses has been carried out at outpatient consultation rooms, ultrasound examination rooms and rehabilitation and physiotherapy rooms. It was also confirmed that crinical practice will be conducted at the Outpatient Facility. In terms of responding to the needs of those training, the necessity of training room at the Outpatient Facility is high.

2) Confirmation of requested contents of medical equipment and training equipment

Due to the change of number of targeted clinics from 8 to 14, the contents of requested medical equipment and training equipment were changed shown in table2-5 from the agreed one in preparatory survey 1 conducted in 2010.

Table2-5 Original and Final Requested Contents of Medical equipment and Training equipment

Minutes Agreement Contents of preparatory survey 1	Final List of Requested Equipment 2014
OPD(13 items), Treatment room(14 items) Sterilizing room(1 item), Rehabilitation & Physiotherapy (31 items) Radiology(3 items) Physiology • Echography(7 items) Biochemistry laboratory(5 items) Hematology laboratory(12 items) General(5 items), Training Room(5 items) Medical Information Equipment(3 items)	OPD(17 items), Radiology(6 items) Pharmacy(4 items), Rehabilitation & Physiotherapy (16 items：1 item is to be shared with Arrhythmia) Neurology(2 items), Neuro metabolism Laboratory(13 items) Training Room(20 items), Hematology laboratory(7 items：2 items are to be shared with Biochemistry laboratory and Bacteriology) Immunology(5 items), Bacteriology（15 items) Biochemistry (1 item) Arrhythmia(1 item), Cardiomyopathy （4 items：2 items are to be shared with Arrhythmia) Echocardiography(2 items), Cardiology（7 items) Post operative cardiac surgery (3 items), Catheterization(3 items) Genetic(5 items)
TOTAL 99 items	TOTAL 131 items

Source: preparatory survey team

＊Organized pulmonary hypertension department and Adolescence congenital heart disease department don't exist now but it is a future plan of Cardiology department as of June, 2014, hence equipment is not procured in this project. As a result of consideration from the points of "Reinforcement of Outpatient Facility function" and "Improvement of the training function", 81 items out of 131 requested items above were selected as the planned equipment in this project

(2) Review of the Necessity and Relevance of Facility Requests

The results of the review on the contents of the final request from the Egyptian side are as shown below.

1) Review of necessity and Relevance

The necessity and relevance of "construction of new outpatient facilitiy" and "medical and training equipment and materials" are reviewed as follows.

① Construction of the The Outpatient Facility

a) Necessity of the plan for facility

Sharing of function among the CUSPH, CSPM, and Monira Hospital have been confirmed in the field survey as shown below and the Faculty of Medicine of Cairo University requested the transfer including side-laboratories and other appropriate facilities associated with the outpatient consultation room. It is considered that construction of the Outpatient Facility under this project is of high necessity in order to consolidate the specialized outpatient clinics currently dispersed in three facilities and to further clarify the functional sharing of these three facilities.

- Main hospital of CUSPH:
  Providing outpatient, emergency, and hospitalization services at the tertiary level
- Monira Hospital:
  Providing outpatient, emergency, and hospitalization services at the secondary level
- CSPM:
  Providing outpatient medical care services and basic healthcare services at the primary level

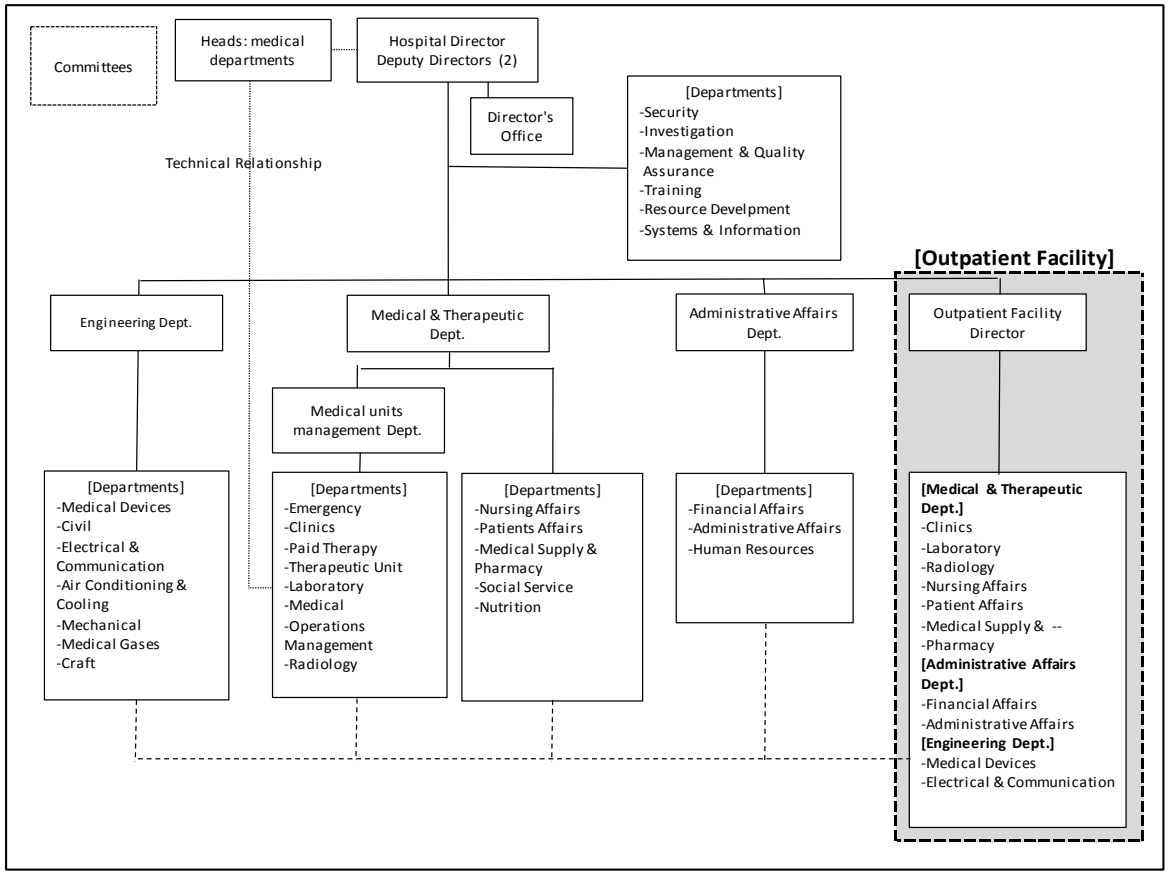
b) Independency of the Outpatient Facility

As the Outpatient Facility is to be constructed on the separate site which is about three-minute walk from the main hospital of CUSPH, the facility is required to have independency from the main hospital of CUSPH in terms of both "operation and management" and "consultation and diagnosis function".

- Independency in terms of operation and management

  The Outpatient Facility is positioned as a branch hospital of the CUSPH. It has been confirmed that the CUSPH and the Faculty of Medicine of Cairo University will implement necessary measures for human resources and budget. The organization chart of the CUSPH after completion of the Outpatient Facility was confirmed in the field survey and it is as shown in the Figure 2-1.

Figure 2-1: Organization chart of the CUSPH after completion of the Outpatient Facility



Source: Preparatory Survey Team

- Independency of the consultation and diagnosis function

It has been determined that appropriateness of setting the internal medicine clinics as the transferred clinics among the outpatient clinics is high because movement of patients and specimens between the main hospital of CUSPH can be minimized, independency of the practice and diagnosis function can be secured and because complete practice services can be provided in the Outpatient Facility.

Note that the following examinations require movement of patients.

- CT scan: Cardiology patients (move to the main hospital of CUSPH)
- Endoscope: Respiratory patients (move to the main hospital of CUSPH)
  Digestive system patients (move to Monira Hospital:Endoscope Center is to be opened in September 2014.)

c) Relevance of the transferred clinics

- CUSPH

Among the internal medicine clinics of the outpatient department of the main hospital of CUSPH, five clinics, Tropical, Cardiology, Catheterization, Genetic and Hepatology, were set as the transferred clinics in addition to the three clinics, Allergy, Chest, and Collagen, that have been agreed for transfer in the Preparatory Survey 1. Also, as Post operative cardiac surgery provides internal medicine diagnosis alone as the post operative follow up, it

is included in the transferred clinic as the internal medicine clinic. It has been confirmed that Ophthalmology and Squint are excluded from the transferred clinics because they are not the internal medicine clinics, the number of patients are too large to be accommodated by the building scale approved by the special permission, and because the vertical flow of patients is crowded and the risk during evacuation is great due to clinics with many patients even on the upper floors of the building. The appropriateness of setting these internal medicine clinics as the transferred clinics is high to establish the Outpatient Facility consisting of internal medicine clinics and to secure independency of the consultation and diagnosis function.

- CSPM

Because the newly established Immunology, an internal medicine clinic, provides the services in the CSPM due to lack of space in the main hospital of CUSPH, and because Rheumatic fever, Cardiomyopathy, and Arrhythmia are the sub-specialties of the the main hospital of CUSPH and the consultatio services should be provided in the main hospital of CUSPH; however the services are provided in the CSPM due to lack of space, it is considered that relevance of setting these clinics as the transferred clinics is high. Also, it has been confirmed that Dermatology and Psychiatry are excluded from the transferred clinics because they are not the sub-specialties of Pediatric, they are provided as a part of original practice services of the CSPM intended for the social service for the children of low-income class including the care of street children, maternity classes, gynecological consultation and other services in a wide range, and because the sub-specialties to be set as the transferred clinics under this plan are the services provided by the main hospital of CUSPH by using the facilities of the CSPM while Dermatology and Psychiatry are not such services.

- Monira Hospital

The outpatient consultation room for Neurology is the narrowest one among the three facilities; however, the receptionist and three doctors handle as many as 18,200 patients annually. Therefore, organization of the outpatient records, EEG and EMG examinations are conducted on a different floor. Also, two sub-specialty clinics, Neuro metabolism and Neuro muscular, have been newly opened in the CSPM for the past year. Transferring of Neurology is appropriate for the following reasons: (1) a consensus has been achieved among Faculty of Medicine, Monira Hospital and the CUSPH; (2) the extremely narrow outpatient consultation space and the dispersion of outpatient function in three places have been causing significant inconvenience to and strain on the patients; and (3) functions dispersed will be consolidated to the nearby outpatient facilities in association with Cerebral surgery of the CUSPH.

② Relevance of training room placement

It is extremely important as a teaching hospital to conduct training for a young doctor and nurse

in the outpatient medical facility. The following plan about future training plan was suggested from Egyptian side. As a result, the relevance is high.

Table 2-6 Training plan at the Outpatient Facility

CLINIC	COURSE	FREQUENCY	TIMES／YEAR	NO. OF PARTICIPANTS／TIME	NO. OF PARTICIPANTS／YEAR	TRAINEES
Cardiology Clinic including cardiomyopathy, arrhythmia and rheumatic fever	Meeting	Weekly	50	36	1,800	Visitors Resident doctors (From CUSPH and out of CUSPH)
		Monthly	12	36	432	
		Quarterly	4	36	144	
		Once in a half year	2	36	72	
		Yearly	1	36	36	
	Clinic conference with cardiac surgery team for difficult cases	Monthly	12	36	432	
	Mortality case study meeting	Monthly	12	36	432	
Emergency	Pediatric emergency workshop	Once in a half year	2	36	72	
	Mechanical ventilation course	4 times a year	4	36	144	
Allergy	Case presentation	Monthly	12	7	84	
Chest		Monthly	12	17	204	
Collagen		Monthly	12	14	168	
Tropical		Monthly	12	11	132	
Genetics		Monthly	12	14	168	
Immunology		Weekly	50	5	250	
Neurology		Monthly	12	9	108	
Hepatology		Monthly	12	8	96	
TOTAL			233		4,774	

Resource: Preparatory Survey Team

③ Procurement of medical and training equipment

The contents as final requested equipment are 131 kinds. From the points of contribution to the quantitative / qualitative improvement of the Outpatient Facility function, these equipment are examined with thought that the targeted clinnics in the project is tertiary level specialized pediatric hospital. The concrete equipment selection policy / criteria are shown following table 2-7.

a) Policy on Selection of Equipment

In the Project, necessary equipment is to be selected in accordance with the following policies:

- Equipment for improvement of the quality of the Outpatient Facility function / service
- Image diagnosis equipment and clinical laboratory equipment which is commonly

used at targeted clinics.

- Equipment for examination and diagnosiswhich is essential for filling a role as the tertiary medical facilities
- Examination equipment which would contribute for patients to transfer at the minimum between CUSPH and the Outpatient Facility
- Equipment which contribute for improvement of the training function

b) Selection Criteria

Based on the policy on selection of equipment, the equipment requested by Egyptian side and additionally necessary equipment were confirmed. The variety and the quantity of equipment were decided in accordance with the following six criteria.

＜Selection Criteria＞

- Purpose of Use

○ (appropriate): Equipment suitable for the basic medical services at the tertiary medical facilities

× (inappropriate): Equipment not suitable for the basic medical services at the tertiary medical facilities

- Necessity

○ (appropriate): Equipment for pediatric medical services at the tertiary level

× (inappropriate): Equipment not necessary for pediatric medical services at the tertiary level, or its benefit is limited though the necessity is accepted. Inexpensive equipment which can be procured for oneself.

- Technical Level

○ (appropriate): Equipment compatible with the current technical level

× (inappropriate): Equipment which requires higher technical skills

- Operational System

○ (appropriate): Equipment for which medical staff are properly allocated or expected

× (inappropriate): Equipment for which medical staff are not expected to be allocated

- Maintenance and Management System

○ (appropriate): Equipment which can be regularly inspected and repaired by the local agents, and whose spare parts and consumables can be easily procured

×inappropriate): Equipment which has difficulties on maintenance by the local agents and on procurement of spare parts and consumables

- Operation and maintenance Cost

○ (appropriate): Equipment for which operation and maintenance cost is low or affordable

× (inappropriate): Equipment for which operation and maintenance cost is high or not affordable

- Overall Evaluation

○ (appropriate): Equipment which is procured appropriately and borne by the Project

×(inappropriate): Equipment which is inappropriately and not borne by the Project

Table2-7 Examination List of Requested Equipment

Item No.	Department	Description	Qty Requested	Objective	Necessity	Technical Capability	Organization	Maintenance	Running Cost	Overall	Quantity to be procured
1	Outpatient Department	Examining table	14	○	○	○	○	○	○	○	45
2	Outpatient Department	Examining Lamp	28	○	○	○	○	○	○	○	11
3	Outpatient Department	Instrument cabinet	22	○	○	○	○	○	○	○	13
4	Outpatient Department	Step stool	12	○	×	○	○	○	○	×	0
5	Outpatient Department	Film illuminator(2 screen)	12	○	○	○	○	○	○	○	13
6	Outpatient Department	Hemadynamometer(for pediatric, Stand type)	16	○	×	○	○	○	○	×	0
7	Outpatient Department	Stethoscope (for pediatric)	18	○	×	○	○	○	○	×	0
8	Outpatient Department	Weighing scale (for infant)	16	○	○	○	○	○	○	○	12
9	Outpatient Department	Height scale (for pediatric)	12	○	○	○	○	○	○	○	12
10	Outpatient Department	Weighing scale (for pediatric)	12	○	○	○	○	○	○	○	12
11	Outpatient Department	Otoscope	12	○	○	○	○	○	○	○	2
12	Outpatient Department	Ophthalmoscope	6	○	×	○	○	○	○	×	0
13	Outpatient Department	Oxygen humidifier	24	○	○	○	○	○	○	○	21
14	Outpatient Department	Ultrasonic Nebulizer	3	○	○	○	○	○	○	○	1
15	Radiology	Fluoroscopic radiology system	1	○	○	○	○	○	×	×	0
16	Radiology	CT scan	1	○	○	○	○	○	×	×	0
17	Radiology	X-ray unit	1	○	○	○	○	○	○	○	1
18	Radiology	CR unit	1	○	○	○	○	○	○	○	1
19	Radiology	Image printer	1	○	○	○	○	○	○	○	1
20	Radiology	Ultrasound diagnostic apparatus (For Abdominal)	0	○	○	○	○	○	○	○	1
21	Pharmacy	Medicine cabinet	4	○	○	○	○	○	○	○	4
22	Pharmacy	Instrument cabinet	4	○	○	○	○	○	○	○	4
23	Pharmacy / Outpatient facility	Medical refrigerator	2	○	○	○	○	○	○	○	5
24	Pharmacy	Rack	0	○	○	○	○	○	○	○	2
25	Rehabilitation & Physiotherapy	Muscle stimulator	2	○	○	○	○	○	○	○	1
26	Rehabilitation & Physiotherapy	Ultra sound therapy unit	2	○	○	○	○	○	○	○	1
27	Rehabilitation & Physiotherapy	Electric adjusted plinth sling suspension therapy	1	○	○	○	○	○	○	○	1
28	Rehabilitation & Physiotherapy	Biofeedback	1	○	△	○	○	○	○	△	1
29	Rehabilitation & Physiotherapy	Incentive spirometer	1	○	×	○	○	○	○	×	0
30	Rehabilitation & Physiotherapy	Vibrator for infant	4	○	×	○	○	○	○	×	0
31	Rehabilitation & Physiotherapy	Spirometry	1	○	○	○	○	○	○	○	1
32	Rehabilitation & Physiotherapy	Mat/Roll/Wedge/Ball	1	○	○	○	○	○	○	○	1
33	Rehabilitation & Physiotherapy	Whirlpool bath	2	○	○	○	○	○	○	○	2
34	Rehabilitation & Physiotherapy	Wall bars	1	○	○	○	○	○	○	○	1
35	Rehabilitation & Physiotherapy	Parallel bar	1	○	○	○	○	○	○	○	1
36	Rehabilitation & Physiotherapy	Conductive education; Cubs	1	○	○	○	○	○	○	○	1
37	Rehabilitation &	Conductive education; Bicycles	1	○	○	○	○	○	○	○	1

Item No.	Department	Description	Qty Requested	Objective	Necessity	Technical Capability	Organization	Maintenance	Running Cost	Overall	Quantity to be procured
	Physiotherapy										
38	Rehabilitation & Physiotherapy	Standing table	1	○	○	○	○	○	○	○	1
39	Rehabilitation & Physiotherapy	Sitting table	1	○	○	○	○	○	○	○	1
40	Rehabilitation & Physiotherapy / Arrhythmia	Balancing table	1	○	○	○	○	○	○	○	1
41	Neurology	EEG	2	○	○	○	○	○	○	○	1
42	Neurology	EMG	1	○	○	○	○	○	○	○	1
43	Neuro Metabolism Laboratory	Liquid chromatography/Tandem mass spectrometry	1	○	×	○	○	○	○	×	1
44	Neuro Metabolism Laboratory	Plate Puncher	1	○	○	○	○	○	○	○	1
45	Neuro Metabolism Laboratory	Thermo plate shaker	1	○	○	○	○	○	○	○	1
46	Neuro Metabolism Laboratory	Weight(4 digits)	1	○	○	○	○	○	○	○	1
47	Neuro Metabolism Laboratory	Centrifuge	2	○	×	○	○	○	○	×	0
48	Neuro Metabolism Laboratory	Centrifuge(Eppendorf)	1	○	×	○	○	○	○	×	0
49	Neuro Metabolism Laboratory	Water bath	1	○	×	○	○	○	○	×	0
50	Neuro Metabolism Laboratory	Fumehood	1	○	×	○	○	○	○	×	1
51	Neuro Metabolism Laboratory	Lab fridge (-80℃)	2	○	○	○	○	○	○	○	1
52	Neuro Metabolism Laboratory	Lab fridge (-20℃)	2	○	×	○	○	○	○	×	0
53	Neuro Metabolism Laboratory	Lab fridge (2-8℃)	2	○	×	○	○	○	○	×	0
54	Neuro Metabolism Laboratory	Distillated water system	1	○	×	○	○	○	○	×	0
55	Neuro Metabolism Laboratory	LABO computer system	1	○	×	○	○	○	○	×	0
56	Training room	Audio sound system	2	○	×	○	○	○	○	×	0
57	Training room	Central venous line simulator	3	○	○	○	○	○	○	○	1
58	Training room	Intra muscular injection simulator	3	○	○	○	○	○	○	○	1
59	Training room	Peripheral catheter simulator	3	○	×	○	○	○	○	×	0
60	Training room	I.O (intraosseous) simulator	3	○	×	○	○	○	○	×	0
61	Training room	CPR Neonatal simulator	3	○	○	○	○	○	○	○	1
62	Training room	Umbilical catheter simulator	6	○	○	○	○	○	○	○	1
63	Training room	Intubations simulator(Pediatric)	3	○	○	○	○	○	○	○	1
64	Training room	Intubations simulator(Neonatal)	3	○	○	○	○	○	○	○	1
65	Training room	CPR Pediatric simulator	3	○	○	○	○	○	○	○	1
66	Training room	Training Tables	6	○	○	○	○	○	○	○	6
67	Training room	Chair(for training table)	36	○	○	○	○	○	○	○	36
68	Training room	Whiteboard for lecture	6	○	×	○	○	○	○	×	0
69	Training room	Wall mount projector	1	○	○	○	○	○	○	○	1
70	Training room	Projector	1	○	○	○	○	○	○	○	1
71	Training room	Projector screen	1	○	○	○	○	○	○	○	1
72	Training room	Instrument cabinet	1	○	○	○	○	○	○	○	1

Item No.	Department	Description	Qty Requested	Objective	Necessity	Technical Capability	Organization	Maintenance	Running Cost	Overall	Quantity to be procured
73	Training room	Medicine cabinet	1	○	○	○	○	○	○	○	1
74	Training room	Hand scrub	1	○	×	○	○	○	○	×	0
75	Training room	Emergency cart	1	○	○	○	○	○	○	○	1
76	Hematology	5 part automated cell counter	1	○	○	○	○	○	○	○	1
77	Hematology	Automated coagulation analyzer	1	○	○	○	○	○	○	○	1
78	Hematology	Research quality binocular microscope	4	○	○	○	○	○	○	○	1
79	Hematology	Incubator	1	○	○	○	○	○	○	○	1
80	Hematology	Centrifuge	1	○	○	○	○	○	○	○	2
81	Hematology/biochemistry / Bacteria Test	Two door reagent Refrigerator with lock	1	○	○	○	○	○	○	○	3
82	Hematology/biochemistry / Bacteria Test	Refrigerator with freezer and lock	1	○	○	○	○	○	○	○	3
83	Immunology	Automated immunology analyzer	1	○	○	○	○	○	○	○	1
84	Immunology	Fluorescent microscope	1	○	○	○	○	○	○	○	1
85	Immunology	Binocular Microscope	1	○	○	○	○	○	○	○	3
86	Immunology	ELISA Microplate reader & washer	1	○	○	○	○	○	○	○	1
87	Immunology	Nephometer	1	○	○	○	○	○	×	×	0
88	Bacteria Test	VITEC system	1	○	○	○	○	○	×	×	0
89	Bacteria Test	T.B culture system	1	○	○	○	○	○	○	○	1
90	Bacteria Test	Automated blood culture system 11	1	○	○	○	○	○	○	○	1
91	Bacteria Test	Laminar flow cabinet(class 2)	1	○	○	○	○	○	○	○	1
92	Bacteria Test	Laminar flow cabinet(class 3)	1	○	×	○	○	○	○	×	0
93	Bacteria Test	Binocular Microscope	2	○	○	○	○	○	○	○	3
94	Bacteria Test	Weight	1	○	×	○	○	○	○	×	0
95	Bacteria Test	Autoclave（tabletop）	1	○	×	○	○	○	○	×	0
96	Bacteria Test	Incubator	1	○	×	○	○	○	○	×	0
97	Bacteria Test	Cenrifuge	1	○	×	○	○	○	○	×	0
98	Bacteria Test	Incinerator	1	○	×	○	○	○	○	×	0
99	Bacteria Test	Lab fridge (-80℃)	1	○	○	○	○	○	○	○	1
100	Bacteria Test	Hemocytometer	2	○	○	○	○	○	○	○	2
101	Bacteria Test	Automated chemistry analyzer	1	○	○	○	○	○	○	○	1
102	Bacteria Test	Automated electrolyte analyzer	1	○	○	○	○	○	○	○	1
103	Arrhythmia	tilt-table for head	1	○	×	○	×	○	○	×	0
104	Cardiomyopathy / Arrhythmia	High signal averaging ECG	1	○	○	○	○	○	○	○	1
105	Cardiomyopathy / Arrhythmia	Holter ECG	4	○	○	○	○	○	○	○	2
106	Cardiomyopathy	Echo machine	1	○	×	○	○	○	○	×	0
107	Cardiomyopathy	Non-invasive monitor	1	○	○	○	○	○	○	○	1
108	Echocardiography	Echo machine	4	○	○	○	○	○	○	○	2
109	Echocardiography	Non-invasive monitor	1	○	×	○	○	○	○	×	0
110	Laboratory	Non-invasive monitor	1	○	○	○	○	○	○	○	1
111	Post operative cardiac surgery	Echo machine	1	○	○	○	○	○	○	○	1
112	Post operative cardiac surgery	ECG	1	○	×	○	○	○	○	×	0
113	Post operative cardiac	Non-invasive monitor	1	○	○	○	○	○	○	○	1

Item No.	Department	Description	Qty Requested	Objective	Necessity	Technical Capability	Organization	Maintenance	Running Cost	Overall	Quantity to be procured
	surgery										
114	Cardiology	Non-invasive monitor	2	○	×	○	○	○	○	×	0
115	Cardiology	ECG	2	○	○	○	○	○	○	○	2
116	Cardiology	Emergency pressure measurement apparatus	1	○	×	○	○	○	○	×	0
117	Cardiology	Exercise test(Treadmill)	1	○	○	○	○	○	○	○	1
118	Cardiology	Non-invasive monitor	1	○	○	○	○	○	○	○	1
119	Cardiology	Stress ECG	1	○	×	○	○	○	○	×	0
120	Catheterization	Echo machine	1	○	×	○	○	○	○	×	0
121	Catheterization	ECG	1	○	×	○	○	○	○	×	0
122	Catheterization	Non-invasive monitor	1	○	○	○	○	○	○	○	1
123	Genetic Outpatient Department A&B	Desk, bed, computer with internet and gene diagnosis software, X-ray tube	1	○	×	○	○	○	○	×	0
124	Genetic Anthropometry	Height and weighing scale, BMI for child and adult	1	○	×	○	○	○	○	×	0
		Wall mount weighing scale	1	○	×	○	○	○	○	×	0
		Digital photography	1	○	×	○	○	○	○	×	0
125	Genetic Archiving	Computer （Patient management soft data, examination item follow up）	1	○	×	○	○	○	○	×	0
		Scanner, printer	1	○	×	○	○	○	○	×	0
		Medical secretary(Reporting, scanning etc)	1	○	×	○	○	○	○	×	0
126	Genetic Reference and Journal	Textbook（Human body dysplasia by Mr, Smith）	1	○	×	○	○	○	○	×	0
		Medical heredity	1	○	×	○	○	○	○	×	0
127	Genetic sample room/area	Examining reclining chair	1	○	×	○	○	○	○	×	0
128	Outpatient Department	Examining desk	20	○	○	○	○	○	○	○	20
129	Outpatient Department	Examining chair	51	○	○	○	○	○	○	○	51
130	Outpatient Department	Wall-mounted suction unit	21	○	○	○	○	○	○	○	21
131	Biochemistry	Liquid waste collection container	1	○	○	○	○	○	○	○	1

Resource: Preparatory Survey Team

* Item No. 91: Since the equipment will be used for handling the agents, a Safety cabinet was planned as a procurement equipment instead of the Laminar flow cabinet (class 2).

2－2－2－2 The Outpatient Facility Operation Plan

(1) Operation Policy

The Outpatient Facility performs specialized medical examination of the internal medicine based on the following policies as a branch facility of CUSPH.

1) Minimizing the travel area of patients

The routine inspections for medical examination and treatment as well as specialized medical examination and treatment are to be performed at the Outpatient Facility so that the transfer between the Outpatient Facility and CUSPH would be minimized for patients and their family.

2) Provision of appropriate environment for specialized medical examination

Improve the operation system to disperse the congestion of outpatients; increase the number of the medical consultation rooms and doctors who belong to the CUSPH of the Faculty of Medicine of Cairo University, or extend the consultation hours or consultation days.

3) Contribution to the capacity building of the medical staff

Hold a meeting for paper readings and case study, ground round and workshop for the purpose of improvement of medical staff and trainee's ability.

4) Security the fund for maintenance

Introduce the patient charge system same as the main hospital of CUSPH in order to maintain medical equipment for a long term.

(2) Diagnostic function and its placement

The following table shows the allocation of each function about medical examination and treatment, examination, training and management based on the operation policy above.

Specialized clinic department	Examination / Treatment
Chest Allergy Collagen Immunology[2)] Neurology[1)] Neuro metabolism[2)] Neuro muscular[2)] Neurology ICU discharged[3)] Neurology NICU discharged [3)] Cardiology Post operative cardiac surgery Catheterization Cardiomyopathy[2)] Arrhythmia[2)] Rheumatic fever[2)] Hepatology Tropical Genetic ---------- [1)]Transfer from Monira Hospital,[2)] Transfer from CSPM,[3)]Newly opened department	Rehabilitation & Physiotherapy Clinical laboratory (Biochemistry, hematology, Immunoligy, Bacteriology) Radiology (X-ray, ultrasound) EEG EMG Echocardiography ECG Genetic examination
	Administration
	Trainiing/Information Medicine management Administration：Accounting, general, personnel Maintenance：Medical equipment, Electronic facility Outsourcing：Cleaning, Security Laundry

(3) Consultation Schedule

1) Consultation days: 6 days from Saturday to Thursday

2) Consultation hours: 4 hours from 8 A.M to noon

3) Change from the current consultation days and hours

The consultation schedule of following three clinics was reviewed in order to disperse the number of patients.

- Neurology： 2 consultation hours will be provided. One is 8:00-12:00, and the othe is 10:00-15:00
- Collagen： Consultation days 5days (Expansion its consultation days on Tuesday and Thursday)
- Post operation cardiac surgery： Consultation hours 12:00-17:00

4) Consultation Schedule for specialized medical examination

The consultation schedule is going to be reviewed in order to disperse the number of patients. The table 2-8 shows consultation schedule for specialized medical examination after the review.

The indication of the specialized clinic department in the table is based on the specialized medical consultation department placement at each floor in the architechtural plan.

Table2-8 Specialized clinic department plan at The Outpatient Facility

Floor	Specialized clinic department	Number of doctors	Medical examination days per week	Number of patients a day(Plan)	Sat	Sun	Mon	Tue	Wed	Thr
2	Rehabilitation & Physiotherapy		3	45	○	○		○		
3	Allergy	3	3	40	○		○		○	
	Chest	3	3	22		○		○		○
	Collagen	4	3	49	○		○		○	
	Immunologu	1	1	24		○				
4	Neurology	3	5	73		○	○	○	○	○
	Neuro muscular	1	1	7		○				
	Neuro metabolism	1	4	11		○	○	○	○	
5	Cardiology	2	6	23	○	○	○	○	○	○
	Catheterization	2	1	38		○				
	Post operative cardiac surgery	5	1	30					○	
	Rheumatic fever	2	5	21		○	○	○	○	○
	Cardiomyopathy	1	1	22			○			
	Arrhythmia	1	1	28					○	
6	Tropical	2	3	18		○		○		○
	Genetic	2	6	29	○	○	○	○	○	○
	Hepatology	6	3	45	○		○		○	

Note: Comparing the number of patients per week from the statistics in 2013 and the number of patients per week based on the preparatory survey May 2014, the bigger figure is divided by the consultation days per week.

5) Expected number of patients

In assuming that 50 weeks of outpatient clinic in a year are conducted, the number of patients at the targeted clinic except rehabilitation is calculated 74,850/year as table 2-9 shows. This figure shows about 8% of patients (apx 5,700 people) increases in comparison with actual value in 2013(69,131 people).

Table2-9 Estimated number of The Outpatient Facility patients

Specialized clinic department	Plan			2013
	Number of patients per day	Number of patients per year	Number of patients on each floor	Number of patients per year
Rehabilitation & Physiotherapy	45	6,750	6,750	2,472
Allergy	40	6,000	17.850	5,997
Chest	22	3,300		2,316
Collagen	49	7,350		7,290
Immunology	24	1,200		840
Neurology	73	18,250	20,800	18,200
Neuro muscular	7	350		48
Neuro metabolism	11	2,200		2,040

Specialized clinic department	Plan			2013
	Number of patients per day	Number of patients per year	Number of patients on each floor	Number of patients per year
Cardiology	23	6,900	18,050	4,613
Catheterization	38	1,900		1,894
Post operative cardiac surgery	30	1,500		605
Rheumatic fever	21	5,250		8,004
Cardiomyopathy	22	1,100		780
Arrhythmia	28	1,400		1,164
Tropical	18	1,700	18,150	2,700
Genetic	29	8,700		6,133
Hepatology	45	6,750		6,507
TOTAL	Include Rehabilitation & Physiotherapy	81,600	–	71603
	Exclude Rehabilitation & Physiotherapy	74,850	–	69,131

(4) Operational Plan according to the function

1) Reception / Office

Outpatients buy a medical examination and treatment ticket at ticket booth on the ground floor in the Outpatient Facility. A receptionist is performed by a secretary or a nurse on each specialized clinic.

2) Management of the medical record and X-ray film

The patient's medical record during the medical examination and treatment is to be kept in the consultation room, and the others are to be stored in the 7th floor records storage room. X-ray film is to be filmless by digitization. The hospitals affiliated with the Cairo university are ongoing the introduction plan of the PACS system (image management system for medical use) which provides storage of and convenient access to the photography images from the DICOM server from about 2015. However, the plan is not included to the Outpatient Facility established by the Japanese Government this project because it has already been into the implementation phase. The photography images in the Outpatient Facility are kept in the computer memory which will be deployed in the interpretation of reading shadow room of the Outpatient Facility for avoiding the case unable to use when the PACS system down at the Cairo University.

3) Procurement of Medicine, Medical Material, Office Supply and Medical Gas

The medicine and medical materials are supplied from the central storage by the Faculty of Medicine of Cairo University. Medical materials is kept in the outpatient pharmacy on the 7th floor, and, medical materials and office equipment are kept by the warehouse of the same floor. The required amount of medicines is handed to patients from a nurse in each consultation room if necessary.

Medical materials and office supplies are managed with a ledger by the management department and handed the quantities they required to each consultation room from the storage room. In terms of medical gas, only oxygen is placed 1 point for 2 beds at each specialized clinic.

4) Waste Disposal Management

Disposal management is separated to medical waste (red bag) and general waste (black bag) following the processing method of CUSPH. After classification, those wastes collected from each treatment department are kept in the storage of two places of waste safekeeping posted in the first floor. The medical waste is collected 2 times a week by a collection car from the Cairo University. It is worked to burn up the collected waste in the incinerator of the Cairo university, but it is processed destruction by fire by the appropriate method that was based on a national waste disposal treatment guideline at another place because Cairo university incinerator is breaking down now. The general waste is collected by the contracted garbage collector at 6 am every morning.

5) Housekeeping and Linen management

The cleaning and laundry services are provided by a private company contracted with CUSPH. Most of the linens in the Outpatient Facility are uniform for doctor, laboratory staff and nurse. The cleaning room and laundry are placed on the PH floor and the necessary equipment and machines for cleaning and washing are kept there.

6) Patient guide, Parking management and Security

A signboard showinig the location of each consultation rooms will be installed at the entrance floor. In addtioin, when a receptionist of the ticket booth hands a ticket, he/she conveys the floor of the consultation room to a patient.

The patient heads to the specified floor for the examination and treatment by elevator. In case the patient gets lost, he/she can ask the direction to two securities who are positioned on the each floor from 2^{nd} to 6^{th} in the Outpatient Facility. A patient gets an easy access environment to the consultation clinic by installing guide maps for the direction from CUSPH to the Outpatient Facility, for the vicinity of the reception and for the side of the elevator.

7) Taining management

The training is carried out based on an annual activity plan. Management department staff manages the reservation and use situation with a ledger not to be held a lecture and a class for the same period.

8) The organization structure plan of outpatient clinic facility and main building

The Outpatient Facility operates as a branch hospital independent only the internal medical function from the activity of the main hospital of CUSPH. On this account CUSPH provides the necessary resource for the administration of the Outpatient Facility such as personnel and budget.

9) The draft of new staff placement

Table2-10 The draft of new staff placement

(a) Administration department

Department		Chief	Staff
Common	Trainning/Information	1	1
Administration	Finance	1	1
	General		1
	Personel		1
Technical	Medical Equipment		1
	Electricity & Communication	1	1
	Security		16
	Cleaner		22
Total		3	44

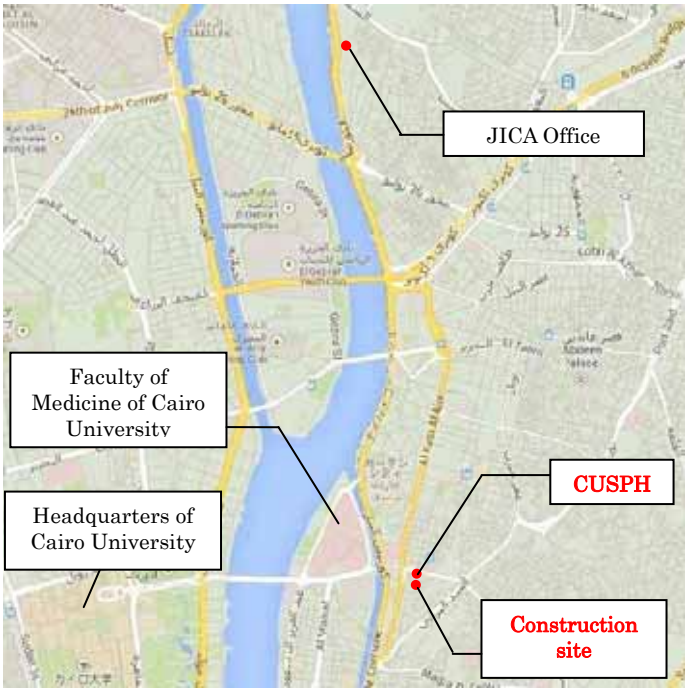
(b) Medical Service Department

Clinic and Laboratory	Days per week	Doctor			Nurse	Technician	Clerk	TOTAL	The reason for the additional placement
		Faculty	Trainee	Contract					
Cardiology	6				2			2	For receptionist and measurement at the cardiology.
Neurorlogy	5								Person in charge of outpatient clinic of the newly established subspecialty.
Neurology ICU discharged	1	1			1			2	
Neurology NICU discharged	1	1			1			2	
EEG, EMG	5				2			2	Operation person in charge of each machine.
Radiology (X-ray)	6	1				2		3	Radiographers in charge of exposure and a radiology doctor to interpret it.
Clinical Laboratory	6	4	3			4	3	14	Perform inspection using the machine of examination of hematology / biochemistry / immunology / bacteriology and make reports.
Rehabilitation & Physiotherapy	6					3		3	Physiotherapist who can perform child rehabilitation. They will conduct physical therapy, exercise therapy, occupational therapy and water therapy.
Medical Material Supplier & Pharmacy	6			2			1	3	Two pharmacists and one person in charge of transporting medicine from the Cairo university Central warehouse.
Total	-	7	3	2	6	9	4	31	

2－2－2－3 Site and Facility Layout Plan

(1) Location of the Site

The site of the main hospital of CUSPH is located on the corner area of Kasr El Ainy Street and Ibrahim Street going south the city from Tahrir Square and the construction site of the Outpatient Facility is in the town area to the south side of the main hospital of CUSPH site and at a distance of approximately three-minute walk from the main hospital of CUSPH. Also, it is located almost in the center of Great Cairo, which consists of Cairo Governorate on the east side of the Nile River and Giza Governorate on the west side of the Nile River, and it is close to Monira Hospital, the CSPM, and Faculty of Pharmacy of Cairo University, which forms a medical complex.



Appearance of the main hospital of CUSPH (Building in the back is the school building of the Faculty of Pharmacy)

Appearance of Monira Hospital

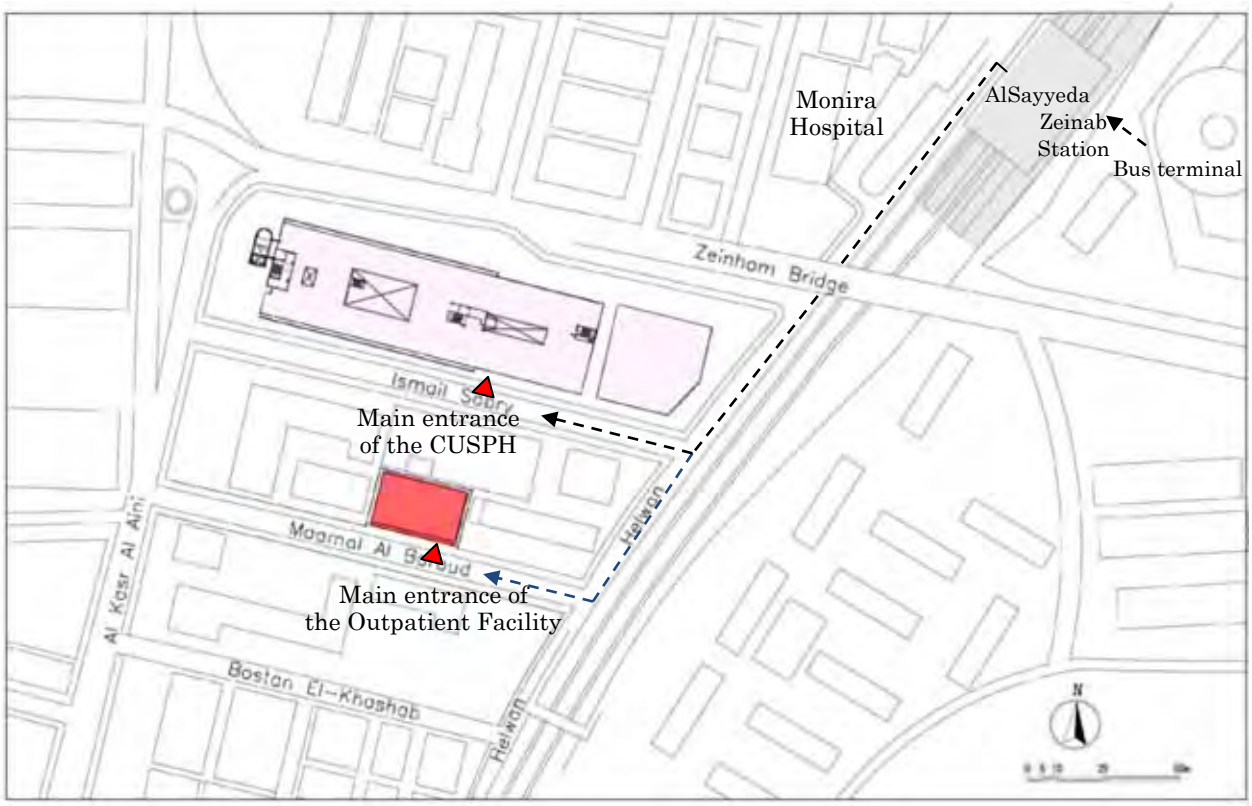
Figure 2-2: Environment surrounding the construction site

(2) Facility Layout Plan

1) Site conditions and flow of visitors

The construction site is located in the central part on the south side of the town area which is south neighbor to the main hospital of CUSPH and the site is facing the Maaml EL-Barond Street with the width of 11.7 m. Many of the patients visiting the main hospital of CUSPH use public transportation. Subway Line 1 AlSayyeda Zeinab station is located on the northeast side of the site in front of Monira Hospital and a bus terminal is located on the east side of the station. Many patients currently walk to the main hospital of CUSPH from these public transportation bases and therefore the main flow of patients to the Outpatient Facility assumes the route from the subway station and bus terminal to the site.

As the site is surrounded on three sides by the language school on the east side, the business school on the west side and housing complex on the north side, and only the south side is facing the front road (Muamal Al Baroud Street), the approach of both patients and staff assumes to take the front road in the plan.



Source: Preparatory Survey Team

Flow of patients visiting the hospital: - - - - ▶

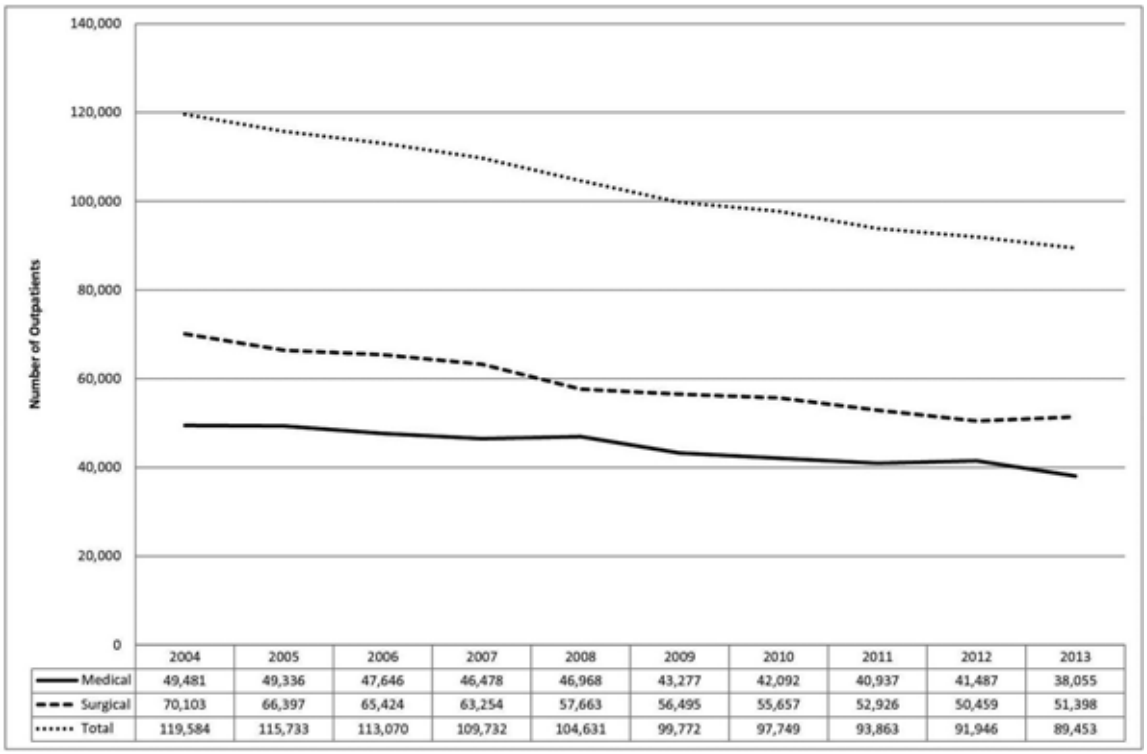
Figure 2-3: Layout drawing for the planned facilities and surrounding area

2－2－2－4 Architectural Plan

(1) Setting of the Scale and Function of the Outpatient Facility

1) Conditions for setting the scale of facilities

The scale of facility and each clinic shall be set according to the following conditions: the number of patients to be consulted by one doctor of each clinic shall be 25 people or less and; the current number of patients and the current number of doctors including university professors on the consultation days of 14 internal medicine transferred clinics and Rehabilitation & Physiotherapy shall be taken into consideration due to a gradual and long-term trend of decrease in the number of patients. Transition in the number of outpatients of the main hospital of CUSPH and the number of patients of the transferred clinics is shown respectively in the Tables 2-11 and 2-12.



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Medical	49,481	49,336	47,646	46,478	46,968	43,277	42,092	40,937	41,487	38,055
Surgical	70,103	66,397	65,424	63,254	57,663	56,495	55,657	52,926	50,459	51,398
Total	119,584	115,733	113,070	109,732	104,631	99,772	97,749	93,863	91,946	89,453

Source: Preparatory Survey Team

Table 2-12: The number of patients of the transferred clinics

Facilities before transfer	Specialized clinic department		Planned annual number of patients
CUSPH	(1)	Allergy	6,000
CUSPH	(2)	Chest	3,300
CUSPH	(3)	Collagen	7,350
CUSPH	(4)	Tropical	2,700
CUSPH	(5)	Cardiology	6,900
CUSPH	(6)	Catheterization	1,900

Facilities before transfer	Specialized clinic department		Planned annual number of patients
CUSPH	(7)	Genetic	8,700
CUSPH	(8)	Hepatology	6,750
CUSPH	(9)	Post operative cardiac surgery	1,500
CSPM	(10)	Rheumatic fever	5,250
CSPM	(11)	Cardiomyopathy	1,100
CSPM	(12)	Arrhythmia	1,400
CSPM	(13)	Immunology	1,200
Monira Hospital	(14)	Neurology (Neurology, Neuro muscular, Neuro metabolism)	20,800
Total			74,850

Source: Preparatory Survey Team

2) Floor settings for each clinic and the plan for sharing the consultation rooms

Floors to arrange each clinic are set up based on the current consultation days to establish the plan preventing concentration of patients on specific floors on each day, as shown in the Table 2-13 below.

Table 2-13: Floor arrangement for each clinic

Floor		Specialized clinic	Consultation days	Number of patients (Day)							Number of patients on each floor (Day)						
				Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun
2	(1)	Rehabilitation & Physiotherapy	3		45				45	45		45				45	45
3	(2)	Allergy	3	40		40			40		89	22	89	22		89	46
	(3)	Chest	3		22		22			22							
	(4)	Collagen	3	49		49			49								
	(5)	Immunology	1							24							
4	(6)	Neurology	5	73	73	73	73			73	84	84	84	73			91
	(6)	Neuro muscular	1							7							
	(6)	Neuro metabolism	4	11	11	11				11							
5	(7)	Cardiology	6	23	23	23	23	Holiday	23	23	66	44	102	44	Holiday	23	82
	(8)	Catheterization	1							38							
	(9)	Post operative cardiac surgery	1			30											
	(10)	Rheumatic fever	5	21	21	21	21			21							
	(11)	Cardiomyopathy	1	22													
	(12)	Arrhythmia	1			28											
6	(13)	Tropical	3		18		18			18	74	47	74	47		74	47
	(14)	Genetic	6	29	29	29	29		29	29							
	(15)	Hepatology	3	45		45			45								

Source: Preparatory Survey Team

Improvements in the hospital operation as shown in the Table 2-14 below shall be implemented to set to just over 70 patients on each floor described above and to accommodate patients and

accompanying people on the benches of the waiting space. It has been agreed in this Preparatory Survey that the Egyptian side will review on the implementation of these improvements.

Table 2-14: Improvement measures for each clinic

Specialized clinic department	Consultation days (currently)	Improvement measures
Neurology	Mon, Tue, Wed, Sun	The measures aim to relax the congestion in the morning by shifting the open hours. For example, Neurology 1 opens: 8:00 ~ 12:00 and Neurology 2 opens: 10:00 ~ 15:00.
Collagen	Mon, Wed, Sat	Dispersion of patients is intended by opening on Tuesdays and Thursdays.
Post operative cardiac surgery*	Wed	Relaxation of congestion on the 5th floor is intended by setting the open hours to 12:00 ~ 17:00.

*The number of doctors belonging to Cardiology is 45 doctors and it is the largest number among the clinical departments. As the doctors of this clinic work until 17:00 or 19:00 on weekdays, it is possible to delay the consultation start time for hospital operation.

Also, the following consultation rooms are shared according to the consultation days under the efficient plan to share one room for each consultation day. (It is described with the shaded text in the Table 2-15.)

a) 3rd floor
- Allergy / Chest
- Collagen / Immunology

b) 4th floor
- Neuro muscular / Neuro metabolism / Neurology ICU discharged /Neurology NICU discharged

*As it is confirmed by this Preparatory Survey that the Neurology ICU discharged and Neurology NICU discharged are to be newly established in July2014, they are regarded as the transferred clinics.

c) 5th floor
- Cardiomyopathy / Arrhythmia

d) 6th floor
- Hepatology / Tropical

(2) Setting of the Consultation Booths for Each Clinic

As the clinics are for further segmentalized pediatric specialized outpatients and it is necessary to consider the characteristics of each clinic, the booths within the consultation rooms and the number of beds for treatment are set up based on the hearing from each clinic and the review. The number of consultation booths of each clinic is determined according to the number of doctors providing consultation on the consultation days.

Table 2-15: Number of consultation booths and beds for treatment in each clinic

Clinic name	Floor of location	Number of doctors on consultation days	Number of consultation booths	Number of beds for treatment	Remarks
Allergy	3	3	3	3	—
Chest		3	3	3	—
Collagen	3	6	6	2	As Collagen and Immunology share according to the consultation days, the number of consultation booths is six for Collagen.
Immunology		5	5	2	
Neuro muscular	4	1	1	1	Neuro muscular, Neuro metabolism, Neurology ICU discharged and Neurology NICU discharged share according to the consultation days.
Neuro metabolism		1	1	1	
Neurology ICU discharged		1	1	1	
Neurology NICU discharged		1	1	1	
Neurology	4	4	4	1	—
Cardiology	5	2	2	2	—
Catheterization	5	2	2	3	—
Post operative cardiac surgery	5	2	2	3	—
Rheumatic fever	5	2	2	2	—
Cardiomyopathy	5	2	2	3	Cardiomyopathy and Arrhythmia share according to the consultation days.
Arrhythmia		2	2	3	
Tropical	6	4	4	2	As tropical and Hepatology share according to the consultation days, the number of consultation booths is eight for Hepatology.
Hepatology		8	8	8	
Genetic	6	2	2	4	—

Source: Preparatory Survey Team

(5) Area of the Rooms of the Outpatient Facility

The Table 2-16 shows the summary of rooms described above by department and by floor.

1) 1st floor:

Entrance hall, Reception, Security guard room, machine room, wastes storage, Parking area, etc. are located. The parking area is a piloti space (only with columns) and the applicable parking space area confirmed with the Ministry of Housing shall be secured.

2) 2nd floor:

In consideration of the move of users, Rehabilitation & Physiotherapy, Laboratory departments,

Waiting space, lavatory, machine room, etc. are located.

3) 3rd floor:

Allergy / Chest, Immunology / Collagen, Abdominal ultrasonography room, X-ray room, Waiting space, lavatory, machine room, etc. are located.

4) 4th floor:

To consolidate Neurology clinics, Neurology, Neuro metabolism / Neuro muscular / Neurology ICU discharged / Neurology NICU discharged, Neuro metabolism laboratory room, EMG room, EEG room, Waiting space, lavatory, machine room, etc. are located.

5) 5th floor:

To consolidate Cardiology clinics, Cardiology, Post operative cardiac surgery, Catheterization (preoperative, postoperative, follow-up), Cardiomyopathy /Arrhythmia, Rheumatic fever, Cardiac ultrasonography room, ECG room, Waiting space, lavatory, machine room, etc. are located.

6) 6th floor:

Hepatology / Tropical, Genetic, Genetic laboratory room, Waiting space, lavatory, machine room, etc. are located.

7) 7th floor:

This floor is for Training section and Administration section, Training room, General Manager room, Nursing Director room, Office room, OPD pharmacy, Medicine stock room, Record archive room, lavatory, machine room, etc. are located.

8) PH floor:

Laundry room and Cleaning room for outsourcing, Generator room, elevated water tank, lavatory, etc. are located.

Table 2-16: Area of the rooms of the Outpatient Facility and each floor area

F	Depart-ment	Room name		RM area (sqm)	Size (m)	No. of RM	Total area (sqm)
1 F	Common area	Parking		165.00		1	165.00
		Main Entrance		25.60		1	25.60
		Entrance Hall / EV Hall		55.10		1	55.10
		WC		3.60	2.00 × 1.80	1	3.60
	Control management	Guide (Ticket)		4.00	1.50 × 2.70	1	4.00
		Security		6.70	2.50 × 2.70	1	6.70
		Telephone operator		3.50	2.00 × 1.70	1	3.50
		Reception		3.70	2.00 × 1.80	1	3.70
		Garbage1		3.80	1.90 × 2.00	1	3.80
		Garbage2		7.00	3.50 × 2.00	1	7.00
	Machine room	Manifold RM		17.50	5.00 × 3.50	1	17.50
		Gas fire extinguishing RM		3.60	2.60 × 1.40	1	3.60
		Substation RM		40.80		1	40.80
		Drainage treatment RM		7.60		1	7.60
		PS/DS1,2		2.70			2.70
	Others	EV1,2,3		20.30		1	20.30
		Anteroom for EV3		2.60	1.60 × 1.60	1	2.60
		Staircase1		5.50	2.70 × 2.00	1	5.50
		Staircase2		9.70		1	9.70
							388.70
		※Total floor area of 1F include the Parking area (165.00㎡) .					
2 F	Rehabilitation & Physiotherapy	Consultation room1,2		6.40	3.60 × 1.80	2	12.80
		Rehabilitation & Physiotherapy		59.90		1	59.90
		Electrical12		5.80	2.10 × 2.70	2	11.60
		Hydrotherapy		15.00	3.00 × 5.00	1	15.00
	Clinical Laboratory	Biochemistry / Hematology / Immunology / Bacteriology(including Blood analysis)		78.20		1	78.20
	Common area	Waiting Hall / EV Hall		88.70		1	88.70
		WC	for men/for women/ for wheelchair/SK/PS	38.00		1	38.00
	Control management	Ticket Booth		5.40	3.00 × 1.80	1	5.40
		Changing	for women	7.00	4.10 × 1.70	1	7.00
		Staff WC	for women	3.60	2.60 × 1.40	1	3.60
	Machine room	A/C		17.50	5.00 × 3.50	1	17.50
		EPS/DS		3.30			3.30
	Others	Corridor		9.50		1	9.50
		EV1,2,3		20.30		1	20.30
		Anteroom for EV3		2.60	1.60 × 1.60	1	2.60
		Staircase1		24.50	7.00 × 3.50	1	24.50
		Staircase2		24.50	7.00 × 3.50	1	24.50
							422.40
3 F	Consultation room & Laboratory	Consultation room1	Allergy/Chest	36.90	6.80 × 5.40	1	36.90
		Consultation room2	Immunology/Collagen	48.70	9.00 × 5.40	1	48.70
		Adominal ultrasound		7.50	2.20 × 3.40	1	7.50
		Preparation RM for adominal ultrasound		4.40	2.20 × 2.00	1	4.40
		X-ray RM(shielded RM)		22.30	4.10 × 5.40	1	22.30
		X-ray control booth		15.70	2.90 × 5.40	1	15.70
		Radiographic aphic image interpretation		11.80	2.10 × 5.40	1	11.80
	Common area	Waiting Hall / EV Hall		124.60		1	124.60
		Ticket Booth		4.30	2.50 × 1.60	1	4.30
		WC	for men/for women/ for wheelchair/SK/PS	35.60		1	35.60
	Control management	Changing	for women	7.00	4.10 × 1.70	1	7.00
		Staff WC	for women	3.60	2.60 × 1.40	1	3.60
	Machine room	A/C		17.50	5.00 × 3.50	1	17.50
		EPS/DS		3.30			3.30
	Others	Corridor		7.30		1	7.30
		EV1,2,3		20.30		1	20.30
		Anteroom for EV3		2.60	1.60 × 1.60	1	2.60
		Staircase1		24.50	7.00 × 3.50	1	24.50
		Staircase2		24.50	7.00 × 3.50	1	24.50
							422.40
4 F	Consultation room & Laboratory	Consultation room1	Neuro metabolism / Neuro muscular / Neurology ICU discharged / Neurology NICU discharged	20.10	3.70 × 5.40	1	20.10
		Consultation room2	Neurology	35.70	6.60 × 5.40	1	35.70
		Neuro metabolic laboratory		30.80	5.70 × 5.40	1	30.80
		LMG RM1,2(shielded RM)		8.20	2.20 × 3.70	2	16.40
		EEG RM1,2		8.20	2.20 × 3.70	2	16.40
		Waiting 1,2,3,4		3.60	2.20 × 1.60	4	14.40
	Common area	Waiting Hall / EV Hall		124.60		1	124.60
		Ticket Booth		4.30	2.50 × 1.60	1	4.30
		WC	for men/for women/ for wheelchair/SK/PS	35.60		1	35.60
	Control management	Staff room		13.00	2.40 × 5.40	1	13.00
		Changing	for women	7.00	4.10 × 1.70	1	7.00
		Staff WC	for women	3.60	2.60 × 1.40	1	3.60
	Machine room	A/C		17.50	5.00 × 3.50	1	17.50
		EPS/DS		3.30			3.30
	Others	Corridor		7.50		1	7.50
		EV1,2,3		20.30		1	20.30
		Anteroom for EV3		2.60	1.60 × 1.60	1	2.60
		Staircase1		24.50	7.00 × 3.50	1	24.50
		Staircase2		24.50	7.00 × 3.50	1	24.50
							422.40

F	Depart-ment	Room name		RM area (sqm)	Size (m)	No. of RM	Total area (sqm)
5 F	Consultation room & Laboratory	Consultation room1	Cardiology (Room3)	20.50	3.80 × 5.40	1	20.50
		Consultation room2	Post operative cardiac surgery (Room4)	26.00	4.80 × 5.40	1	26.00
		Consultation room3	Catheterization(Pre-Catheterization/Post-Catheterization/ Observation) (Room7)	22.70	4.20 × 5.40	1	22.70
		Consultation room4	Cardiomyopathy / Arrhythmia (Room1)	24.80	4.50 × 5.40	1	24.80
		Consultation room5	Rheumatic fever (Room8)	16.30	3.00 × 5.40	1	16.30
		Echocardiography (Room2)		15.10	2.80 × 5.40	1	15.10
		ECG RM (Room5)		21.60	4.00 × 5.40	1	21.60
	Common area	Waiting Hall / EV Hall		127.40		1	127.40
		Ticket Booth		4.30	2.50 × 1.60	1	4.30
		WC	for men/for women/ for wheelchair/SK/PS	35.60		1	35.60
	Control management	Changing	for women	4.10	2.40 × 1.70	1	4.10
		Staff WC	for women	3.60	2.60 × 1.40	1	3.60
	Machine room	A/C		17.50	5.00 × 3.50	1	17.50
		EPS/DS		3.30			3.30
	Others	Corridor		7.70		1	7.70
		EV1,2,3		20.30		1	20.30
		Anteroom for EV3		2.60	1.60 × 1.60	1	2.60
		Staircase1		24.50	7.00 × 3.50	1	24.50
		Staircase2		24.50	7.00 × 3.50	1	24.50
							422.40
6 F	Consultation room & Laboratory	Consultation room1	Hepatology / Tropical	71.50	13.20 × 5.40	1	71.50
		Consultation room2	Genetic	40.20	7.40 × 5.40	1	40.20
		Genetic Lab.		35.70	6.60 × 5.40	1	35.70
	Common area	Waiting Hall / EV Hall		124.60		1	124.60
		Ticket Booth		4.30	2.50 × 1.60	1	4.30
		WC	for men/for women/ for wheelchair/SK/PS	35.60		1	35.60
	Control management	Changing	for women	7.00	4.10 × 1.70	1	7.00
		Staff WC	for women	3.60	2.60 × 1.40	1	3.60
	Machine room	A/C		17.50	5.00 × 3.50	1	17.50
		EPS/DS		3.30			3.30
	Others	Corridor		7.20		1	7.20
		EV1,2,3		20.30		1	20.30
		Anteroom for EV3		2.60	1.60 × 1.60	1	2.60
		Staircase1		24.50	7.00 × 3.50	1	24.50
		Staircase2		24.50	7.00 × 3.50	1	24.50
							422.40
7 F	Training	Training room		51.00	9.40 × 5.40	1	51.00
		Storage(for Training room)		10.90	5.20 × 2.10	1	10.90
	Common area	Staff WC	for men/for women/ for wheelchair/SK/PS	35.60		1	35.60
	Control management	Office		21.60	4.00 × 5.40	1	21.60
		Office for director of outpatient dep.		12.60	2.30 × 5.40	1	12.60
		Office for director of nursing service dep.		12.60	2.30 × 5.40	1	12.60
		Office for director of facility		12.60	2.30 × 5.40	1	12.60
		Changing	for women	16.20	3.00 × 5.40	1	16.20
		Chart storage		20.60	3.80 × 5.40	1	20.60
		OPD pharmmacy		10.00	3.20 × 3.00	1	10.00
		OPD pharmmacy stock		13.10	4.20 × 3.00	1	13.10
		Medical consumer		7.70	2.50 × 3.00	1	7.70
		Office supply		10.80	3.50 × 3.00	1	10.80
		Storage1		4.30	2.50 × 1.60	1	4.30
		Storage2		6.50		1	6.50
	Machine room	A/C		17.50	5.00 × 3.50	1	17.50
		EPS/DS		3.30			3.30
	Others	Corridor / EV Hall		83.60		1	83.60
		EV1,2,3		20.30		1	20.30
		Anteroom for EV3		2.60	1.80 × 1.60	1	2.60
		Staircase1		24.50	1.80 × 3.50	1	24.50
		Staircase2		24.50	1.80 × 3.50	1	24.50
							422.40
PH F	Control management	Laundry		26.70		1	26.70
		Cleaning		20.10	5.10 × 3.90	1	20.10
		Staff WC		2.50	2.30 × 1.00	2	5.00
	Machine room	Generator room		26.60	6.80 × 3.90	1	26.60
		Water tank		27.40	6.70 × 4.10	1	27.40
		EPS/DS		3.20			3.20
	Others	Corridor		21.80		1	21.80
		EV3		3.00	3.00 × 1.80	1	3.00
		Staircase2		24.50	24.50 × 3.50	1	24.50
							158.30
B1F	Water tank RM			33.70		1	33.70
						Total floor space	3115.10

Source: Preparatory Survey Team

(6) Floor Plan

The concept of floor planning for each floor is as shown below.

1) 1st floor

By establishing the main entrance facing the front road on the south side, the approach from the subway station is secured. Also, the route goes from the main entrance via the information (ticket counter) and reception counter to the elevator which is the main flow to access to a consultation room and laboratory room on an upper floor.

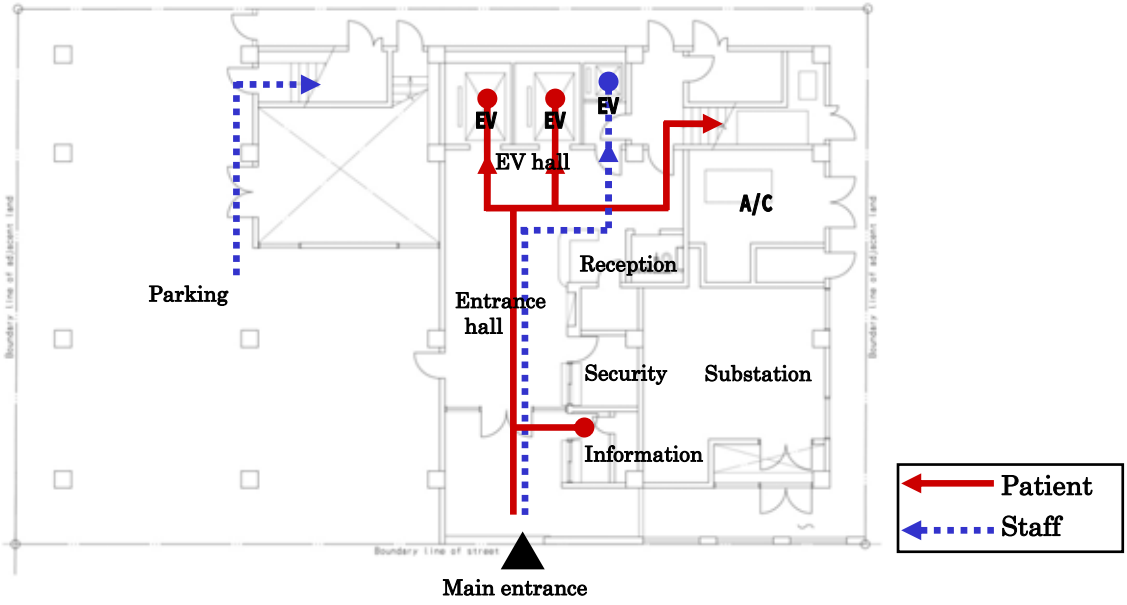


Figure 2-4: Floor plan for the 1st floor

2) 2nd floor

The floor consists of clinical laboratory room (Biochemistry / Hematology / Immunology / Bacteriology) and Rehabilitation & Physiotherapy room. Shared waiting space for patients is located facing the elevator hall for the access to the rooms. A ticket counter for examination is also located in the waiting space so that patients requiring blood sampling / urine sampling after consultation can purchase a ticket to receive examination. For Rehabilitation & Physiotherapy, consultation room, hydropathy room and electric treatment room are installed in addition to the main Rehabilitation & Physiotherapy room.

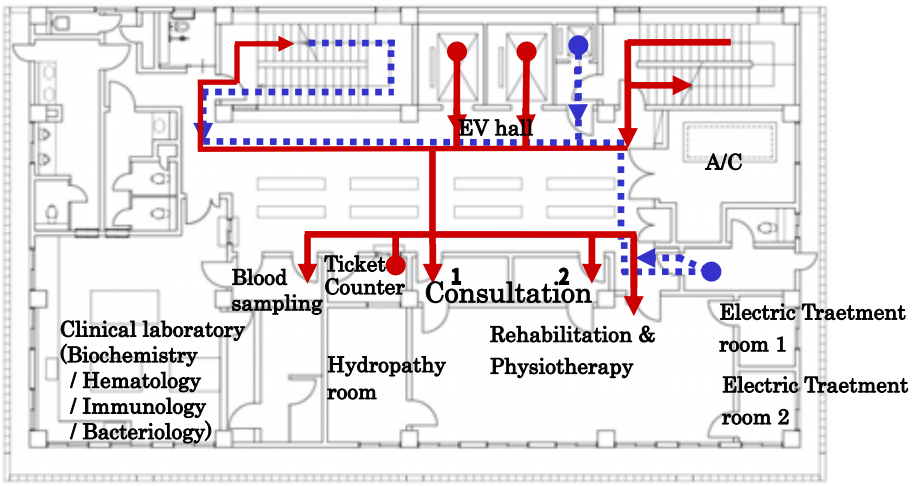


Figure 2-5: Floor plan for the 2nd floor

3) 3rd floor

The floor consists of Consultation room1 (Allergy / Chest), Consultation room 2 (Collagen / Immunology), Abdominal ultrasonography room, X-ray room, etc. Shared waiting space for patients is located facing the elevator hall for the access to the rooms. Patients go through the reception counter of each consultation room and calling of patients in the waiting space is conducted with the intercommunication system installed in the consultation rooms and the waiting space. Curtain partitions are installed in the consultation rooms to provide minimal necessary privacy protection for patients. Also, in the shared lavatory, lavatory for wheelchair users is installed and lavatory for staff is installed together with the changing room for staff.

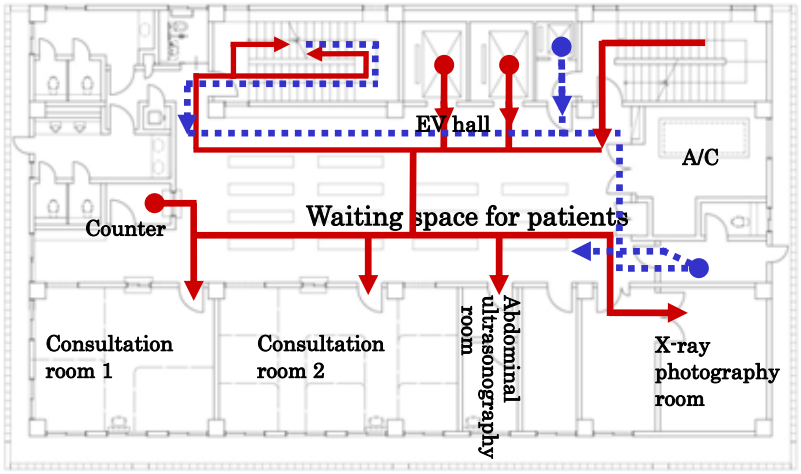


Figure 2-6: Floor plan for the 3rd floor

4) 4th floor

The floor consists of Consultation room 1 (Neuro muscular / Neuro metabolism / Neurology ICU discharged / Neurology NICU discharged), Consultation room 2 (Neurology), EMG room, ECG room, Neuro metabolic laboratory room, etc. Shared waiting space for patients is located facing the elevator hall for the access to the rooms. Calling of patients in the waiting space is conducted with the intercommunication system installed in the consultation rooms and the waiting space. Curtain partitions are installed in the consultation rooms to provide minimal necessary privacy protection for patients. Also, in the shared lavatory, lavatory for wheelchair users is installed and lavatory for staff is installed together with the changing room for staff.

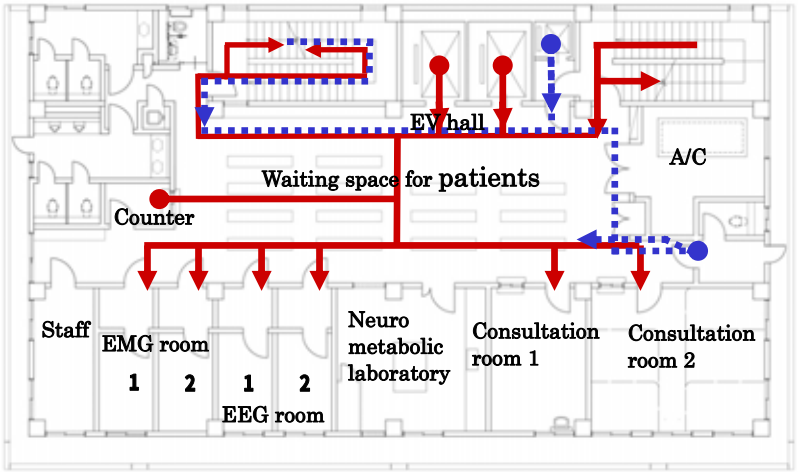


Figure 2-7: Floor plan for the 4th floor

5) th floor

The floor consists of Consultation room 1 (Cardiology), Consultation room 2 (Post operative cardiac surgery), Consultation room 3 (Catheterization), Consultation room 4 (Cardiomyopathy / Arrhythmia), Consultation room 5 (Rheumatic fever), Cardiac ultrasonography room, ECG room, etc. Shared waiting space for patients is located facing the elevator hall for the access to the rooms. Calling of patients in the waiting space is conducted with the intercommunication system installed in the consultation rooms and the waiting space. Curtain partitions are installed in the consultation rooms to provide minimal necessary privacy protection for patients. Also, in the shared lavatory, lavatory for wheelchair users is installed and lavatory for staff is installed together with the changing room for staff.

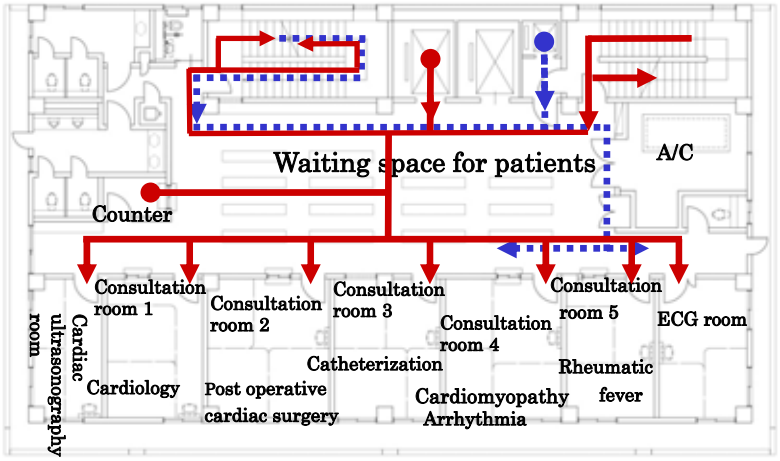


Figure 2-8: Floor plan for the 5th floor

6) 6th floor

The floor consists of Consultation room 1 (Hepatology / Tropical), Consultation room 2 (Genetic), Genetic laboratory room, etc. Shared waiting space for patients is located facing the elevator hall for the access to the rooms. Calling of patients in the waiting space is conducted with the intercommunication system installed in the consultation rooms and the waiting space. Curtain partitions are installed in the consultation rooms to provide minimal necessary privacy protection for patients. Also, in the shared lavatory, lavatory for wheelchair users is installed and lavatory for staff is installed together with the changing room for staff.

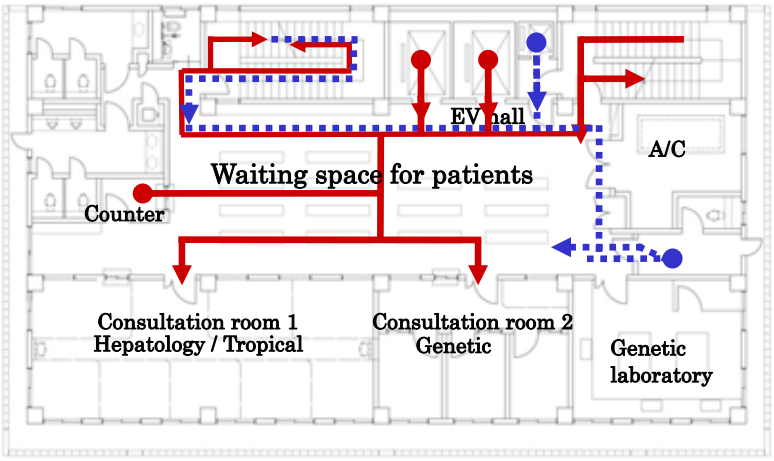


Figure 2-9: Floor plan for the 6th floor

7) 7th floor

The floor consists of Administration related rooms. As medication for outpatients are conducted during consultation at each consultation room, the Pharmacy is located on this floor and nurses of each clinic come to this floor to pick up medicine. Training room has the stock room to keep training equipment and materials according to the training contents. Active medical records are stored in the medical record shelf in each consultation room and other records are kept in the record archive room. When any records are necessary, they are taken out from this room.

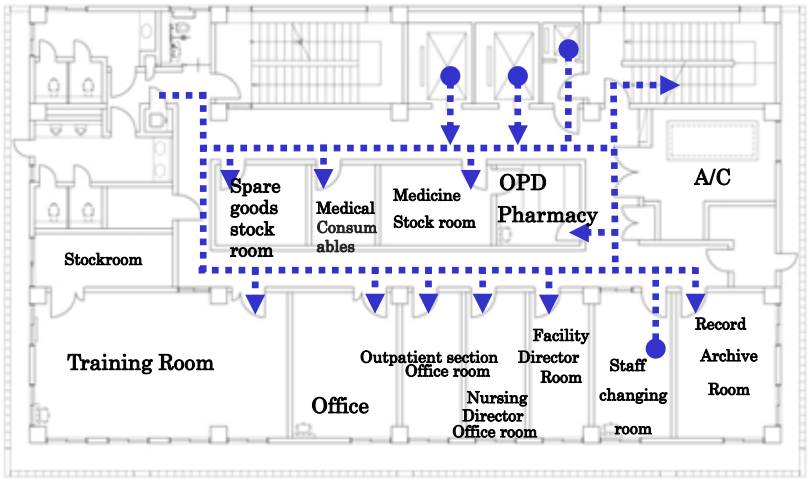


Figure 2-10: Floor plan for the 7th floor

(7) Elevation and Section

1) Elevation plan (shape / finishing materials)

The structure adopts reinforced concrete rigid-frame structure, which has high strength and is commonly used locally and easy to construct, and uses brick-built outer walls. Mortar base and paint finishing are mainly used and stone finishing is partially used for the areas surrounding the main entrance. In consideration of the economic efficiency and easy construction, the roof is a flat roof shape of RC slab. In the same manner, the floor specification is RC slab.

Outside fittings adopt aluminum fittings with weather resistance. Windows installed in living rooms are of opening/closing type to be able to control the ventilation according to the weather. Also, maintenance balconies are installed to allow maintenance not only from the indoor side but also from the outside. In order to reduce the indoor air conditioning load, perforated blocks to block the direct sunlight are installed on the whole surfaces of the east, west, and south sides which living rooms are facing. The blocks are also effective as the sand protection wall against the sand flying from the desert.

2) Section plan

In consideration of the indoor environment and the height necessary for the required dimension inside the ceiling, the standard floor height is set to 4,300 mm. On the 1st floor, the rooms related to facilities are consolidated to secure the entrance and piloti-type parking space for the approach from outside and take into consideration of easy maintenance and renewal of equipment.

As a proposal to utilize the natural environment, cool-pit system is adopted to send the air collected

and cooled in the pit to the inside of the rooms on each floor. Thus, the planning takes into consideration of the maintenance and management cost.

2－2－2－5 Structure Plan

(1) Status of Soil on the Premises

The ground survey shows that the boring height for the construction site is approximately – 2m from the front road and that the ground consists of filling approximately up to 2m from the current ground level and of mainly sand soil underneath. The unevenness of N value is significant in the relatively shallow range (approximately up to 12 m from the ground surface: minimum N value = 15), while the N value is stable in a deeper range (at the depth of GL-15m or over: minimum N = 48). Also, the water level is approximately 0.7 to 1.2 m from the current ground level.

Source: Preparatory Survey Team

Figure 2-11: Boring Pillar Shape Diagram

(2) Foundation Plan

1) Foundation type

As the building for this project is of a heavy-weight structure, the soil bearing capacity is insufficient for the soil contact pressure of the building in the case of a direct foundation. Therefore, the construction method can adopt either the cast-in-place concrete pile method or the method with ground improvement + direct foundation. Comparison between these two construction methods is as shown in the Table 2-17. This project adopts the cast-in-place concrete pile method because it is commonly used locally and because the cost performance is superior.

Table 2-17: Table of comparison of foundation construction methods

Construction method	Cast-in-place concrete pile	Ground improvement (deep layer mixing method)
Outline	Construction method by pouring concrete into the drilled boreholes and inserting the basket-shaped steel reinforcing bar	Construction method by stirring the soil, mixing cement with it, and further stirring it to solidify
Estimated support layer	GL-17 meters, sandy soil layer (N value= 50 or over)	GL-13.5 meters, sandy soil layer (N value = 15)
Characteristics	• Commonly used in Egypt • Resistance force is checked by placing test piles and conducting vertical load test.	• Transporting of heavy equipment from Japan is required.
Overall evaluation	The construction method is commonly used locally and the cost performance is excellent.	It has disadvantage in the aspect of cost due to increase in the length to be improved in addition to the difficulty in local procurement of heavy equipment.

Source: Preparatory Survey Team

(3) Structure Planning

The main structure type adopts reinforced concrete structure which is used locally as a common construction method. The frame type both in the X and Y directions uses the rigid-frame structure. The major floor height is 4.30 meters and the major span is approximately 6.6 × 6.6 meters. The major slab thickness is 150 millimeters.

The outer walls adopt wet brick-laid type and the partition walls for inner walls use brick-laid wet or dry walls.

(4) Design Load

1) Dead load

Dead load is determined by calculating the deadweight of the materials used.

2) Live load

In consideration of the Building Standards Act of Japan, the live load value shall be determined according to the actual situation.

Table 2-18: Live load of main rooms (unit: N/m^2)

Load / Room	Slab and sub-beam	Beam and column	Seismic
Office	2,900	1,800	800
Corridor / Waiting space	3,500	3,200	2,100
Consultation room / Laboratory	3,900	2,400	1,600

Source: Preparatory Survey Team

3) Wind load

Review on the wind load is omitted as the building for this project is reinforced concrete heavy-weight structure and the influence of seismic load is dominant.

4) Seismic load

As a result of the survey, the seismic load in Egypt is expressed by the response acceleration spectrum. When determining the seismic load, the design ground motion acceleration (Cairo City: 0.15g) and the importance factor (hospital: 1.4) for this project are taken into consideration and it is calculated as shown below.

$$F = S_d(T) \cdot W / g / 1.4$$
$$= 0.05 \sim 0.06 \cdot W$$

In this formula,

$S_d(T)$: Response acceleration spectrum (= 0.081g)

W: Weight of the building

g: Acceleration of gravity

(5) Structural Materials

1) Concrete

Normal concrete

2) Reinforcing bars

Material strength: equivalent to SD295A, SD345

Diameter: D6, D10, D12, D16, D22, D25

3) Steel frame

Tensile strength: equivalent to 400 [N/mm^2] or more

2－2－2－6 Electrical and Mechanical Plan

(1) Electrical Plan

There are 3 keywords as the design policy as follows;

- Stabilize Power Supply
- Save Electricity
- Save Maintenance

1) Applicable laws, regulations and standards

Basically, the building or system design should comply with the domestic laws, regulations and standards. Otherwise, Japanese or International laws and regulations will apply in arbitrarily as necessary.

- **Egyptian Building Code**
- **Egyptian Fire Code**
- **IEC: International Electrotechnical Commission**
- **JIS: Japanese Standards**
- **BS: British Standard**

(2) Outline of the Electrical System Plan

1) Power supply system

In this project, a new building will receive high tension power, 3P4W 11kV 50Hz, from the public line of the power company. High tension line shall be connected to the High Tension Receiving Board(HTRB) in the substation room. The cabling route is underground piping along the load in front of the project site. Power meter by the electricity company shall be located on the outside wall of the substation room.

Next, high tension line from HTRB shall be connected to a transformer in the substation room through Vacuum Circuit Breaker(VCB). The transformer capacity is estimated as 750kVA. The transformer changes high tension line to low tension line, 3P4W 380-220V.

The low tension line will be extended from the Low Tension Feeder Board(LTFB) in the electrical room.

The scope of works for power supply system is as follows;

-Egyptian side: Cabling to HTRB in the substation room from the public line
and power meter

-Japanese side: All system from HTRB including HTRB, transformer, VCB, LTFB, etc.

The voltage from the power company has a little fluctuation. So, Automatic Voltage Regulator(AVR) will be not necessary. While, if voltage changes to the value out of the fixed range, the power supply will be cut off and the generator will be driven automatically.

The Figure-2-12 shows the conceptual diagram of the electric power supply system in section

The Figure-2-13 shows the conceptual diagram of the electric power supply system by

single line.

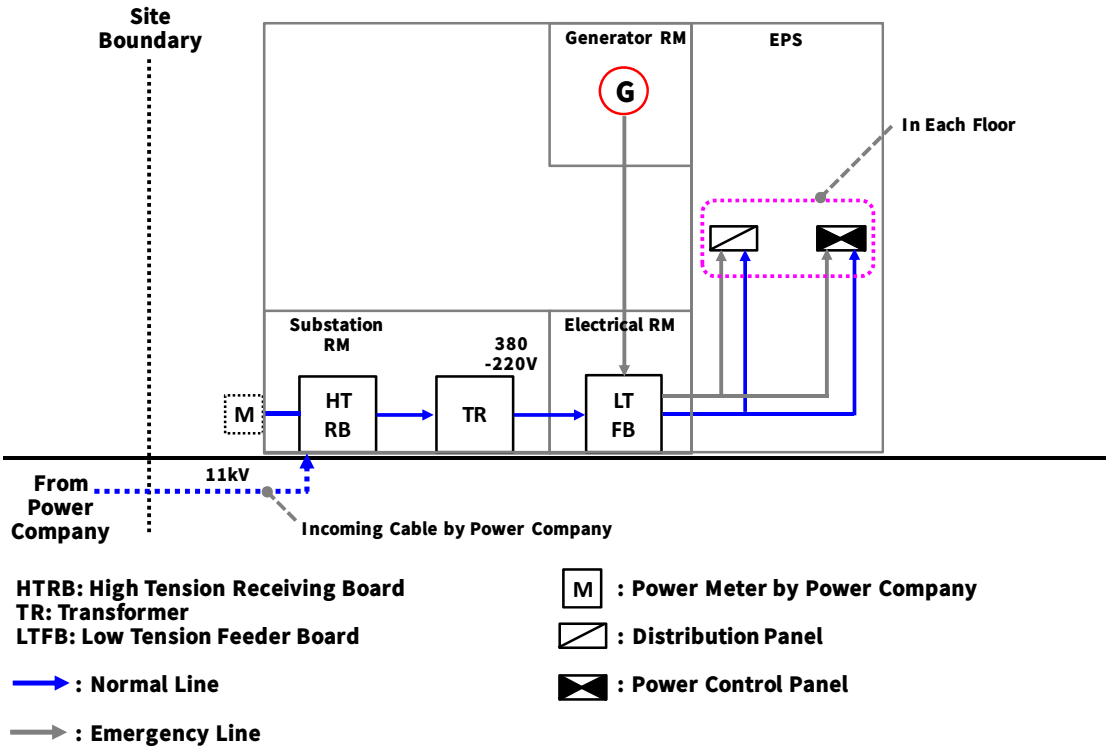


Figure 2-12: Conceptual Diagram of Power Supply System in Section

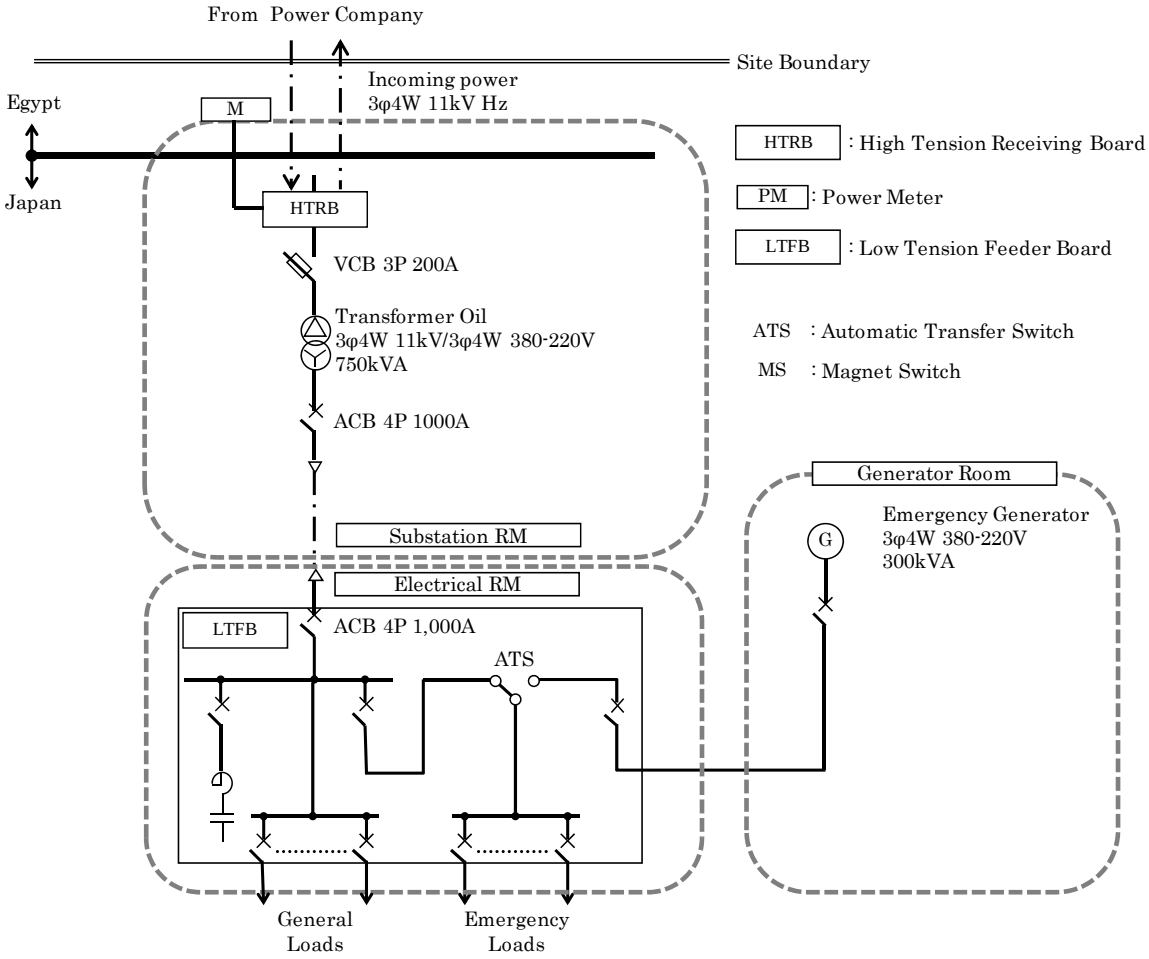


Figure 2-13: Conceptual Diagram of Power Supply System by Single Line

2） Generator system

In Cairo City, recently, power failure doesn't happen so often. Even if it happens, the period is a few minutes. In case of power failure, a new building shall be provided with an emergency generator with diesel engine in the generator room. The generator capacity is estimated as 300kVA. And, an oil service tank with 1000L shall be provided, too. Then, the new generator can be driven for more than 12 hours continuously.

In this project, the emergency loads are as follows;

-25% of lighting fixture

-100% of power sockets

-All plumbing pumps

-Fire fighting system

-Elevators

3） Lighting / Power Socket

In the design of lighting system, "Electrical Code" will be applied for illuminance level. Fluorescent fixtures shall be planned for a new building in principle. As possible as can, high-efficiency long-life or easily available lamps will be used to save maintenance.Manual switch will be used to turn light on and off in principle. Additionally, in corridor, timer switch will be used. In toilet and locker room, automatic switch by motion sensor will be used to save electricity.For emergency evacuation, exit lights with battery will be equipped at necessary places. The type of power sockets shall be planned as 2 prong plug basically. 1P2W 220V power shall be supplied with power sockets. A part of lighting fixtures, all of power sockets will be backed up by emergency generator. The Table 2-19 shows the lighting specification for main rooms.

Table 2-19: Lighting Specification for Main Rooms

Room Name	Illuminance	Fixture Type	Switching
Clinic	By Electrical Code	Ceiling Recessed Type with Acrylic Cover	Local Switch
Laboratory	By Electrical Code	Ceiling Recessed Type with Acrylic Cover	Local Switch
Waiting Hall	By Electrical Code	Down Light	Local Switch and Timer
Office	By Electrical Code	Ceiling Recessed Type with louver	Local Switch
Corridor	By Electrical Code	Down Light	Local Switch and Timer
WC	By Electrical Code	Down Light	Motion Sensor
Storage	By Electrical Code	Ceiling Mounted Type	Local Switch
Machine room	By Electrical Code	Ceiling Mounted Type	Local Switch

4) Telephone / LAN system

A new building will receive external line from the public line of the telephone company. The external line shall be connected to the Main Distribution Frame(MDF) in the office room. The cabling route is underground piping along the load in front of the project site. A new building shall be provided with a Private Branch Exchanger(PBX) in the office room. The number of external line is estimated as 20 lines. As for internal line, the number of internal line is estimated as 40 lines.

The scope of works for telephone system is as follows;

-Egyptian side: Cabling to MDF in the office room from the public line

-Japanese side: All system from MDF including MDF, PBX, terminal board and telephone set

The Figure 2-14 shows the conceptual diagram of the telephone system.

In the Outpatient Facility, computers will be used for examination or administration. To enable to use LAN system, the cabling between the modem and outlets for LAN system will be planned. The personal computer shall be by Egypt.

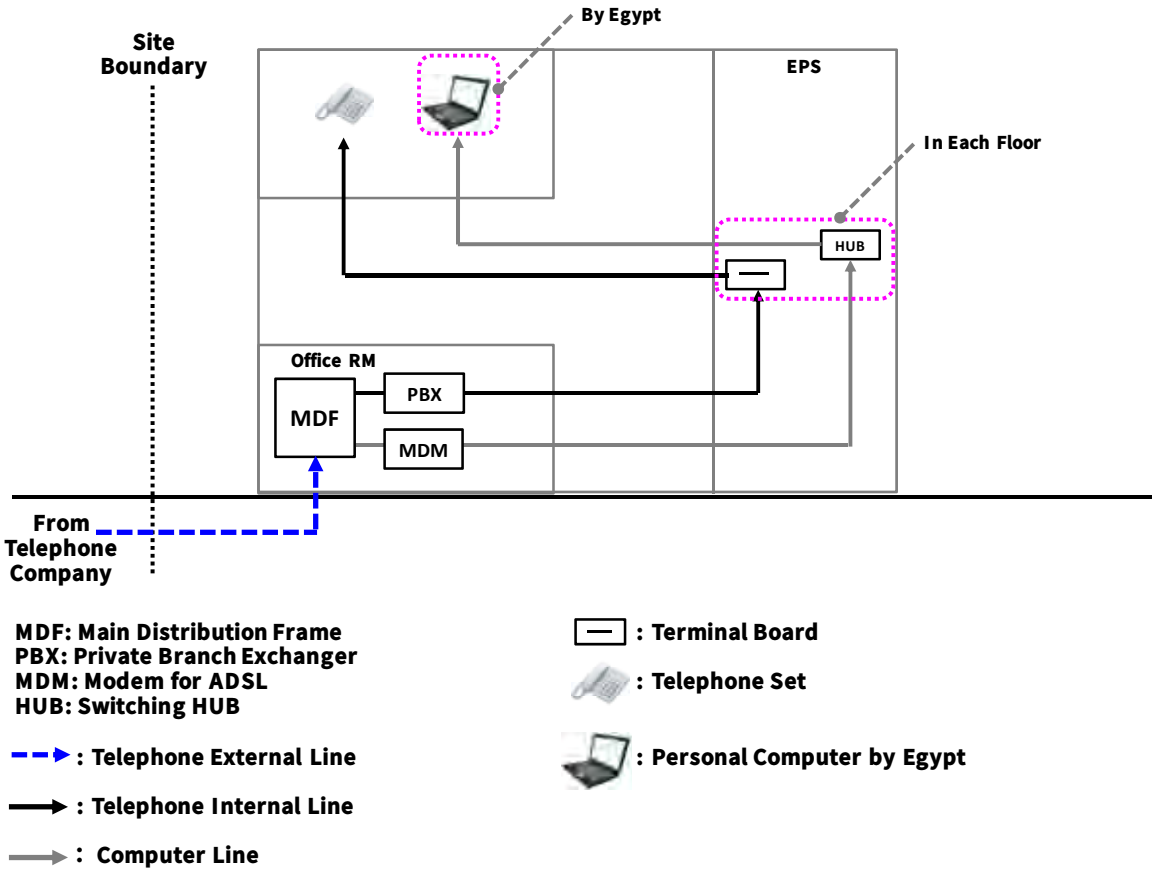


Figure 2-14: Conceptual Diagram of Telephone System

5) Television system

A new building will receive television radiowave by antenna on the roof floor. A new building shall be provided with antenna, booster, distributor and television outlets at necessary places. Television sets shall be by Egypt.

6) Fire alarm system

Fire alarm system shall be installed in all area according to domestic laws and regulations. Fire alarm system will be composed of fire control panel, detectors, manual call buttons and indication lamps.

7) Public Address system

For emergency warning in fire, public address system shall be installed in all area according to domestic laws and regulations. Otherwise, for general calling to doctors, staffs, nurses and engineers or information announce, public address system shall be installed. Public address system will be composed of amplifier, microphone, speakers and attenuators. Public address system is equal to call system.

8) Intercom system

Intercom shall be installed in the rooms as follows;

-X-ray control booth ~ X-ray Room

-Consultation room ~ Waiting Hall

-Elevators ~ Office Room

9) Ground connection system

For a new building, independent grounding system with various types of grounding electrodes will be planed for power supply system and medical equipments.

10) Security system

For deterrent and record of crime, monitoring camera system shall be installed This system will be composed of monitor, recording device, and monitoring camera.

(3) Machinery and Equipment Plan

1) Design policy

The following four basic policies shall be applied to the design policy of mechanical design for this project.

- **Safe and stable system** that allows operation for a certain period of time during disconnection of infrastructure
- **Securing of cleanliness and prevention of nosocomial infection** in consideration of securing of air balance and place to discharge special exhausts
- **Simple system** in consideration of the simplified maintenance
- **Energy-saving system** by geothermal heat utilization system, controlling the minimal outdoor fresh air intake volume, and enhancing the heat insulation

2) Related laws, regulations and standards

As a rule, the mechanical plan shall conform to the laws, regulations and standards in Egypt; however, the laws and regulations of Japan or other countries shall be applied as needed.

- Egyptian Building Code

- Egyptian Air conditioning Code
- Egyptian Plumbing Code
- Egyptian Firefighting Code
- Other Egyptian Code
- JIS: Japanese Standards

3) Outline of the mechanical plan

a) Water supply system

The city water main pipe is installed in the road in front of the construction site and it has the pipe diameter of 600φ and water supply pressure of 3.5kgf/cm^2, with the water supply amount available per day of up to 24,000m^3. Therefore, the conditions required for water supply infrastructure are satisfied.

In order to simplify the maintenance and management and enhance the maintenance of outpatient hospital functions, the water supply system shall adopt the gravity type with water receiving tank, water lift pump, and elevated water tank. After taking in the city water to the water receiving tank, the two water lift pumps shall be used to pump up the water to the elevated water tank on the rooftop. As the two floors on the upper layer shall be reduced water supply pressure from the elevated water tank, a booster pump for the exclusive use for the two floors shall be installed to secure the necessary water pressure.

The water receiving tank and elevated water tank shall be equipped with an inner partition to secure water supply during cleaning. The water volume in the water receiving tank shall secure the water supply volume for a day based on the meeting with main hospital of CUSPH.

As a result of the meeting with waterworks bureau, the water quality in accordance with the WHO standards is ensured; however, the result of analysis of city water shows that water hardness is relatively high for the use for medical equipment and air conditioning system, although relevant water quality standards are satisfied. Therefore, a water softener shall be installed to prevent scales from attaching to the equipment and devices using water.

b) Hot water supply system

Individual hot water supply system shall be provided to supply minimal requirement of hot water by limiting the hot water supply points. The hot water supply rooms shall be laboratories with individual electric water heater and Hydrotherapy room with individual instantaneous gas water heater.

Table 2-20: Hot water supplied rooms and supply system

Hot Water Supplied Room		System
Laboratory	2F Biochemistry / Hematology lab. 4F Neuro metabolic / molecular lab. 6F Genetics Lab.	Individual Electric Water Heater
Room	2F Hydrotherapy	Individual Gas Water Heater

c) Sewage water system

It has been confirmed at the meeting with the sewage department that city sewage pipe is not installed in the road in front of the construction site. However, installation of the city sewage pipe shall be possible by submitting the application according to the procedures specified by the sewage department. Application requires payment of installation cost for main piping installation and digging cost for road digging and necessity of the application under the current situation has been agreed with main hospital of CUSPH. Installation of the main sewage piping shall be within the Egyptian scope of construction.

After installing the main sewage piping, sewage from the the Outpatient Facility shall be connected and discharged to the main city sewage pipe. As the fumehoods in the clinical laboratory (Biochemistry / Hematology / Immunology / Bacteriology) on the 2nd floor and Neuro metabolic laboratory on the 4th floor includes acid, alkali, and infectious drainage, neutralization and sterilization treatment plant shall be installed and drainage after treatment shall be discharged as general drainage to the the main city sewage pipe.

d) Gas supply system

In the site survey, it has been confirmed that the main gas piping is not installed in the road in front of the construction site. As the nearest main natural gas piping is installed in the road in front of the main hospital of CUSPH which is to the north of the construction site, main natural gas piping shall be newly installed by the Egyptian side.

Natural gas shall be supplied for the gas burner in the laboratory and for laundry heat source. As the laws and regulations in Egypt prohibit carrying in of individual gas cylinder into laboratory, gas shall be supplied by branching from the gas infrastructure piping through the piping to all the laboratories and the laundry.

The Figure 2-15 shows the water supply, hot water supply and sewage piping schematic diagram.

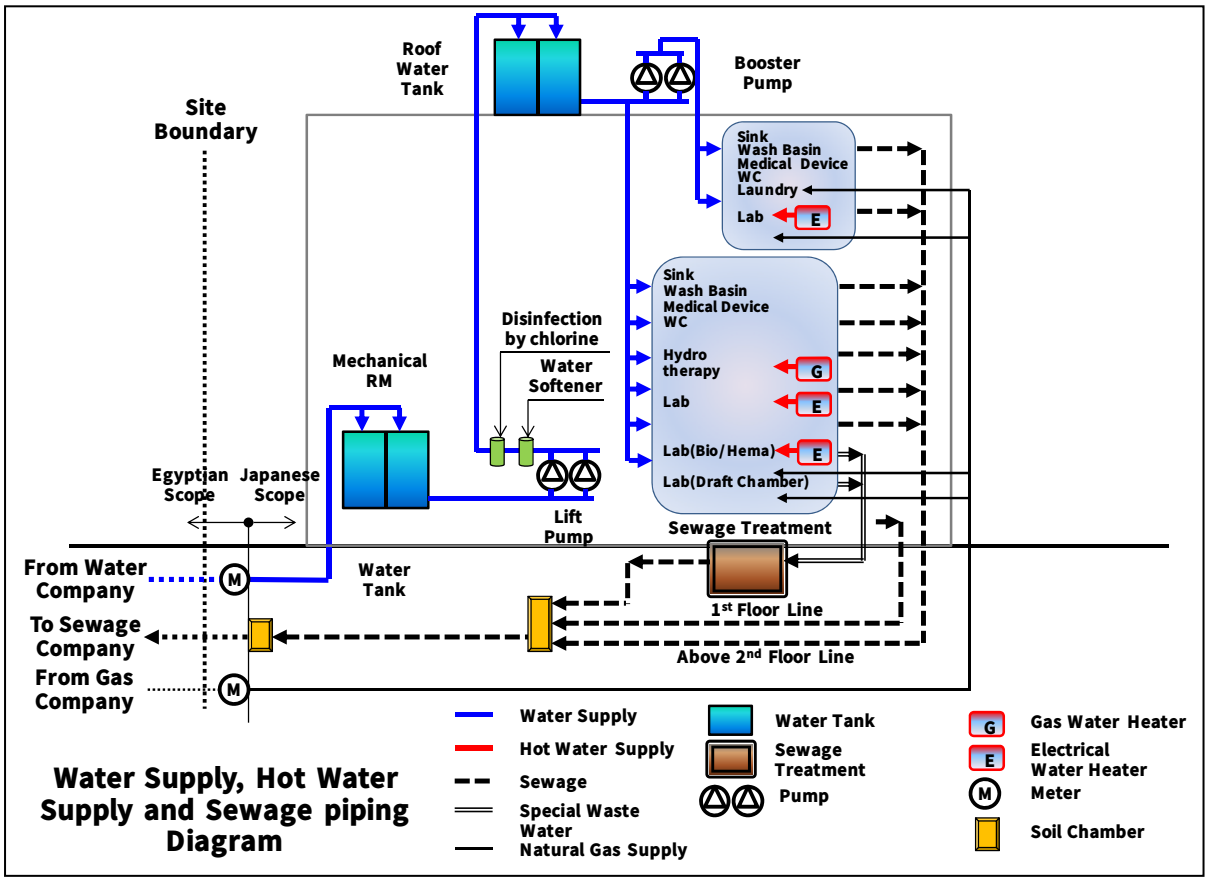


Figure 2-15: Water supply, hot water supply and sewage piping schematic diagram

e) Sanitary fixture

Sanitary fixture of the type which is commonly used locally shall be selected. Water closets shall be of western type with flush valve. To prevent nosocomial infection, washbasin faucets for clinics and laboratories shall be of elbow-touch type.

f) Fire protection system

Based on the meeting with the main hospital of CUSPH engineer, indoor hydrant and fire extinguisher shall be installed in the Outpatient Facility to protect the entire area from fire.

It shall be designed to provide gas fire extinguishing system in the electricity room, hand hose powder fire extinguisher in the parking area, and siamese connection near the stairs. Finally, Fire protection system shall be designed based on the Egyptian code.

g) Medical gas system

To prepare for the necessity of emergency treatment, oxygen and vacuum outlets shall be installed. Each outlet shall be installed on the examination beds in the consultation rooms other than the Rehabilitation & Physiotherapy room. The installation standards for outlets shall be as described below.

	1 bed	2 beds	3 beds	4 beds	5 beds	6 beds	7 beds	8 beds
Nos. of Oxygen and Vacuum installation	1	1	2	2	3	3	4	4

All outlets shall be supplied by the central piping system with oxygen manifold and vacuum pump / tank.

Specification of the outlets shall comply with the French (NF) Standards to ensure consistency with the main hospital of CUSPH.

h) Waste treatment

In the main hospital of CUSPH, general wastes and medical wastes are sorted and collected. General wastes are collected by an external contractor every day and medical wastes are periodically (2 times a week) collected in Cairo University. Wastes in the Outpatient Facility shall be sorted, collected and treated in the same manner as in the main hospital of CUSPH.

i) Laundry

Washing machine and drier shall be installed. Assuming that the items to wash shall be consultation bed covers and sheets for 47 consultation beds and nurse clothes for 40 nurses based on the hearing, 2 units of full automatic washing machine with extractor for 25 kg and 2 units of gas drier for 30 kg shall be installed.

j) Heat source for air condtioning

Central heat source system with air cooled water chiller shall be installed. In order to avoid air conditioning failure during trouble or maintenance, 2 units of chiller shall be installed.

Chilled water from the air cooled water chillers shall be supplied to the outdoor air handling units and to the fan coil units.

In consideration of the environmental performance, several chilled water pumps shall be installed and the pumps shall be operated according to the necessary flow rate by the inverter control of one unit in addition to the unit number control.

Also, the chilled water temperature shall be set to 7 °C $\rightarrow$ 14 °C (Δt = 7 °C) in consideration of the environmental performance.

The heat source system shall be designed according to the Egyptian Code.

k) Air conditioning and ventilation system

Air conditioning system and mechanical ventilation system shall be installed according to the architectural plan.

As the temperature of outdoor air is high in Egypt, controlling of outdoor air intake volume has a significant influence on energy conservation. Energy reduction in outdoor air intaking, such as setting the intake to 10 ~ 20% of the total air conditioning supply air volume, shall be essential in the mechanical design. The following methods can be taken to reduce energy due to outdoor air intake.

- Adopting of air handling unit with a total heat exchanger
- Controlling of minimum outdoor air intake volume of the air handling unit
- Reducing of outdoor air heat load by using a cool pit system

In the Outpatient Facility, however, independent exhaust ventilation shall be used for laboratories. Also as non-return of the air to the air handling unit shall be safe in case of an accident and the

balance between air supply and exhaust shall be not maintained due to the existence of independent exhaust ventilation, an air handling unit with a total heat exchanger shall not be adopted and the method to intake outside air by a cool pit and the method to control the outdoor air intake volume according to the operation status and minimize the outside air intake volume shall be adopted.

By setting the optimal outdoor air intake volume, setting the optimal capacity of the outdoor air handling unit, and installing a motor damper on the outdoor air conditioning duct system of each room or each zone, invertor controlling of the fan of outdoor air handling unit shall be conducted with the switch ON/OFF signals to reduce power consumption and outside air heat load.

Energy consumption due to outdoor air intake shall be also reduced by using a cool pit which effectively shall utilize the underground temperature lower than the outdoor air during outdoor air intaking.

Fresh outdoor air temperature shall be controlled by the outdoor air handling unit to take in each room and the room temperature of each room shall be controlled by the individually installed fan coil unit.

Exhaust ventilation of each room shall be executed with the individual exhaust fan. Special exhaust such as fumehood shall be exhausted from the roof top.

Regarding the sand storm control measures, pre-filter and sand trap shall be examined installation on the outdoor air handling unit for prevention of sand mixing. Also, use of negative pressure and more frequent ventilation in the laboratories, exhausting of fumehood exhaust from the roof top, and other appropriate measures shall be implemented to prevent nosocomial infection.

Air conditioning / ventilation systems shall be designed in accordance with the Egyptian Code.

The Figure 2-16 shows the air conditioning piping schematic diagram. The Figure 2-17 shows the air conditioning ducting schematic diagram for building. The Figure 2-18 shows the air conditioning ducting schematic diagram for each floor.

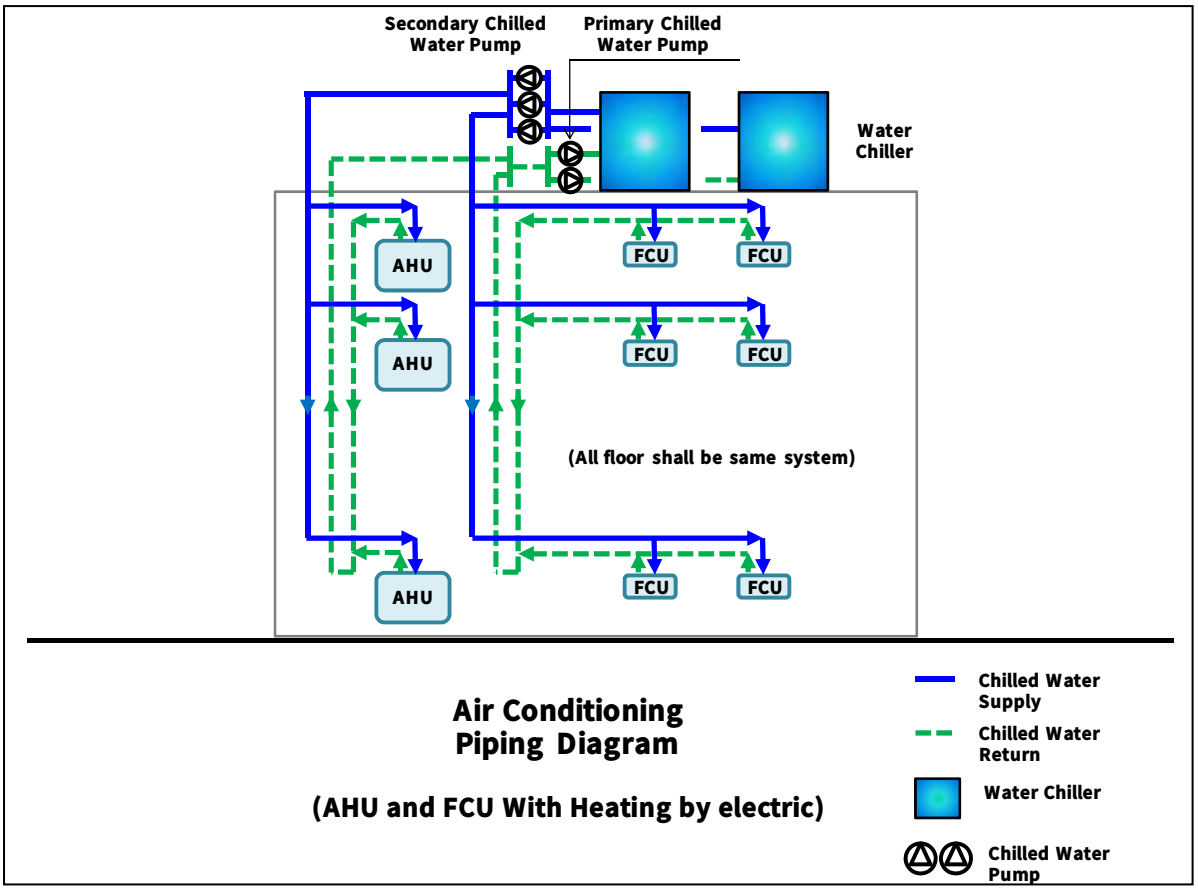


Figure 2-16: Air conditioning piping schematic diagram

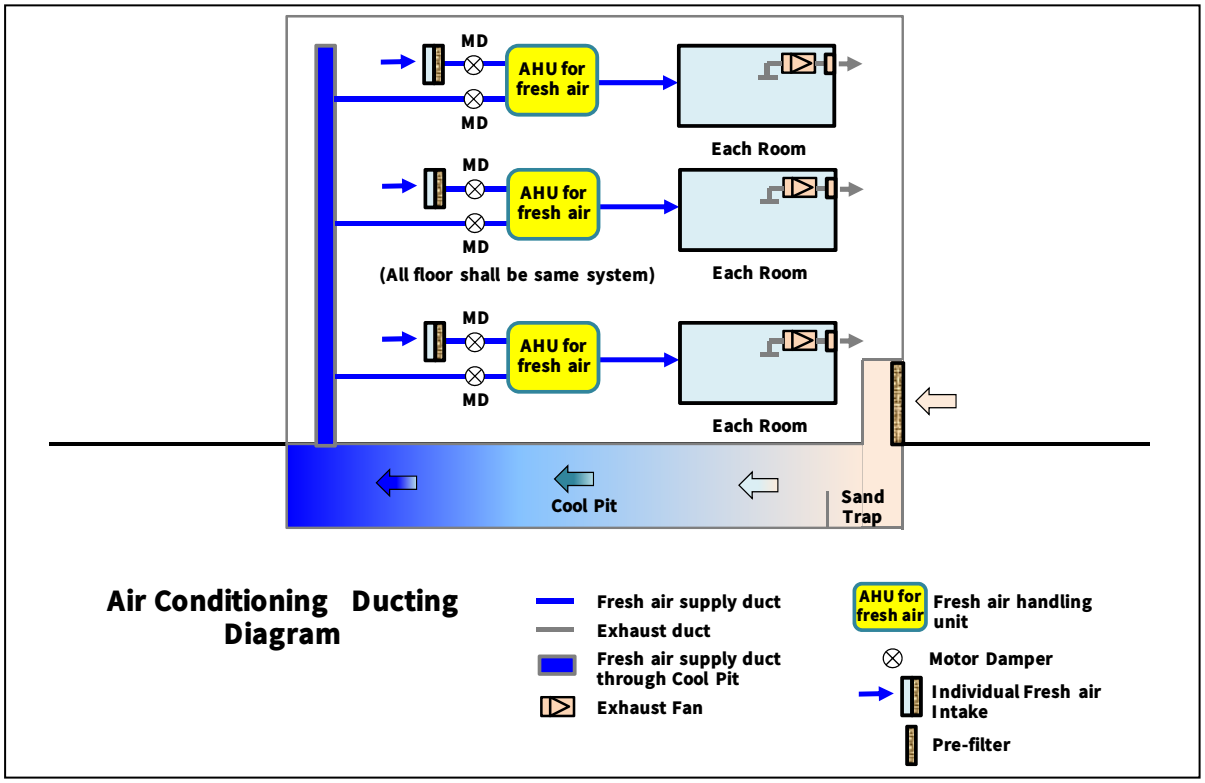


Figure 2-17: Air conditioning ducting schematic diagram for building

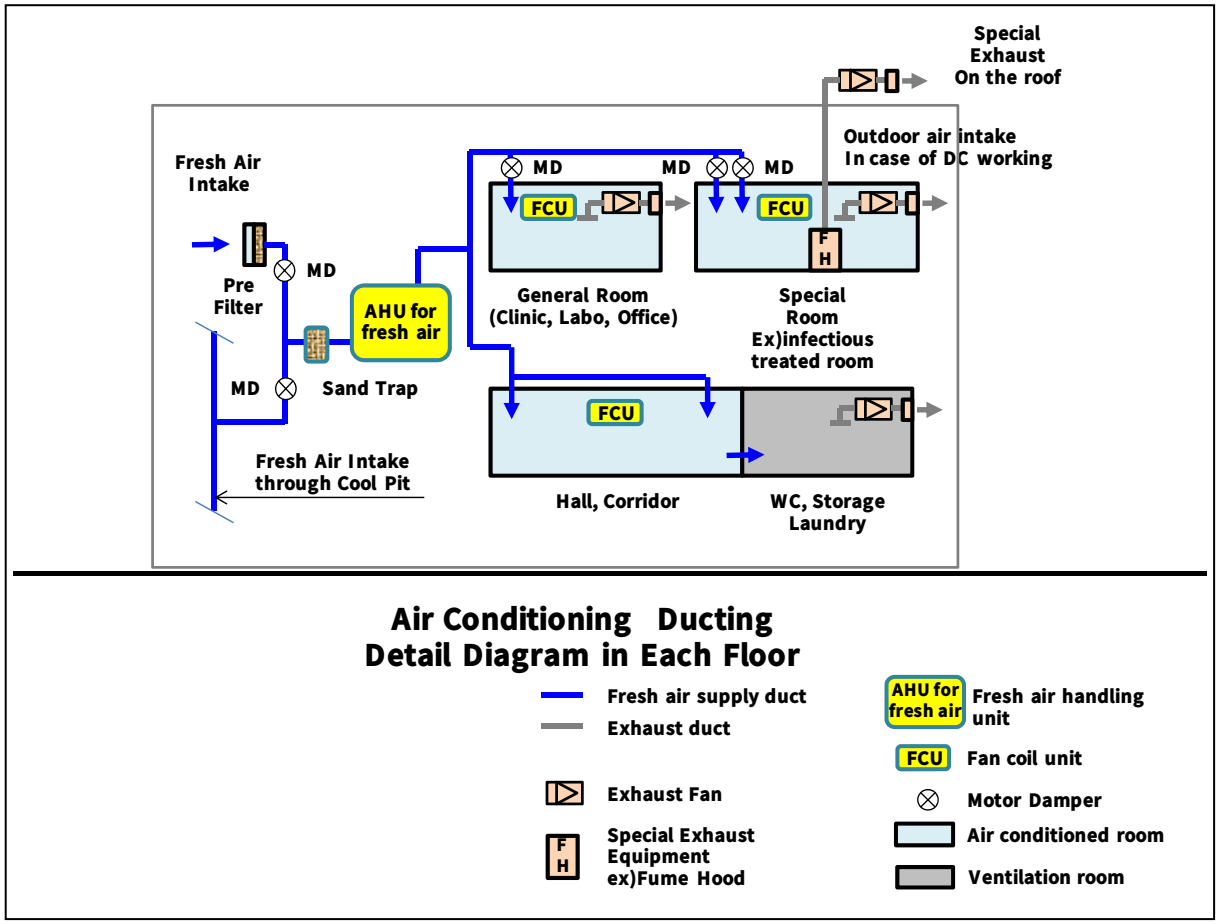


Figure 2-18: Air conditioning ducting schematic diagram for each floor

4) Elevator system

(i) For bed: 2 units

Speed: 1.0m/s

Capacity: 23 people (Japanese standard), 18 ~ 21 people (overseas standard)

Weight: 1500kg (Japanese standard), 1275 ~ 1600 kg (overseas standard)

Driving method: Invertor control method (rope type)

(ii) For general use: 1 unit

Speed: 1.0m/s

Capacity: 4 people (Japanese standard). 4 people (overseas standard)

Weight: 320kg (Japanese standard), 320kg (overseas standard)

Driving method: invertor control method (rope type)

2－2－2－7 Construction Materials Plan

When selecting building materials and machinery, products and construction methods using accessories and replacement parts available in Egypt shall be mainly selected in consideration of easy maintenance and management.

Building materials, construction methods, points to be noted for each major part are as shown below.

(1) Exterior Finishing Materials

1) Roof

In consideration of economic efficiency and easy construction method, the roof adopts concrete slab flat roof with asphalt water protection. Heat insulation materials are placed underneath the ceiling slab to provide internal heat insulation for controlling the temperature increase inside the building and also for reducing the air conditioning load.

2) Exterior walls and fittings

In consideration of easy maintenance and management after completion of construction, paint which is commonly used locally is adopted for the outside wall of the building. Also in consideration of the temperature in Egypt and other appropriate factors, aluminum sash is used for outside fittings. Perforated blocks are installed on the balconies to control the sunlight during the daytime and reduce the air conditioning load. Steel fittings with high sound insulation performance and durability are used for the machine rooms.

Table 2-21: Exterior finishing materials and construction method

Section		Material adopted	Reason for adopting
Outside	Roof	Flat roof	It is adopted because maintenance is relatively easy.
	Outside wall	Brick wall + mortar + painting	Paints that can be easily procured locally are adopted in consideration of maintainability.
	Fitting	Stainless steel door (main entrance/exit)	It has excellent weatherability and maintenance is easy.
		Steel door (machine room, etc.)	It has high durability and sound insulation.
		Aluminum door / window	It is commonly used in the area and maintenance is easy.

Source: Preparatory Survey Team

(2) Interior Finishing Materials

1) Floors

Floor finishing for each room adopts finishing method suitable for the usage of the room.

- Consultation rooms, waiting space, laboratory rooms:
  Consultation rooms and laboratory rooms use vinyl flooring sheets that have appropriate elasticity and user-friendliness and can be easily maintained and replaced.
- Sanitary areas:
  Lavatorys, Hydrotherapy room, etc. adopt asphalt water protection and tiled floor with excellent

durability.

2) Interior walls

In order to reduce the structural load weight, the interior wall adopts paint finishing on the light-weight steel-frame wall base. Also, walls of lavatorys and other sanitary areas adopt tiling on the brick wall mortal base to ensure easy wiping of the walls.

3) Ceilings

Aisles and stairs adopt mortar base paint finishing and general rooms adopt a system ceiling with rock wool acoustic board on the light-weight steel frame base of T-bar shape.

4) Fittings, etc.

Light-weight and durable steel fittings are used for consultation rooms and laboratory rooms. Stair rooms, machine rooms, and other zones and rooms requiring sound insulation performance use steel fittings. Also, light-weight aluminum fittings suitable for the usage are used for lavatorys.

Table 2-22: Interior finishing materials and construction method

Section		Construction method adopted	Reason for adopting
Inside	Floor	Vinyl flooring sheet	It is user-friendly and maintenance is easy. It is adopted for consultation rooms, laboratory rooms and waiting space.
		Ceramic tile	It has durability. Cleaning is easy. It is adopted for plumbing area.
	Inside wall	Painting	It is commonly used locally and maintenance is easy. It is adopted for general rooms.
		Ceramic tile (Wet area)	It is commonly used locally and maintenance is easy in the places which get water drops directly. It is adopted for rooms with plumbing (lavatorys, Hydrotherapy room).
	Ceiling	Rock wool acoustic board	It is commonly used locally and maintenance is easy. It is adopted for general areas.
	Fittings	Light-weight steel door	Maintenance is easy. It is adopted for general rooms.
		Steel door	It has toughness. It is adopted for inspection openings, etc.

Source: Preparatory Survey Team

(3) Materials & Equipment for Facilities

Many of the equipment related to systems have useful life-span of 7 to 13 years or so, which is characteristically shorter than that of building materials. Therefore, as the Egyptian side smoothly implemented maintenance management including renewal of equipment after completion delivery, while securing a certain level of quality, using the local products as much as possible. Also, using Japanese products only when necessary.

2－2－2－8 Equipment Plan

(1) Basic Plan

1) Overall Plan

This project plans to procure the necessary equipment for examination and treatment activity with construction of the Outpatient Facility. Regarding equipment plan, it was finalized based on the requested equipment list and the domestic analysis through the preparatory survey.

2) Policy on Selection of Equipment

Necessary equipment is to be selected in accordance with the following policies

- Equipment for improvement of the quality of the Outpatient Facility function / service
- Image diagnosis equipment and cliniccal laboratory equipment which is commonly used at targeted clinics.
- Equipment for examination and diagnosis equipment which is essential for filling a role as the tertiary medical facilities
- Examination equipment which would contribute for patients to transfer at the minimum between CUSPH and the Outpatient Facility
- Equipment which contribute for improvement of the training function

The following table shows the equipment plan based on the above policy.

Table 2-23 Planned Equipment List

Code No.	Department	Description	Quantity to be Procured
1	Outpatient Department	Examining table	45
2	Outpatient Department	Examining Lamp	11
3	Outpatient Department	Instrument cabinet	18
4	Outpatient Department	Film illuminator(2 screen)	13
5	Outpatient Department	Weighing scale (for infant)	12
6	Outpatient Department	Height scale (for pediatric)	12
7	Outpatient Department	Weighing scale (for pediatric)	12
8	Outpatient Department	Otoscope	2
9	Outpatient Department	Ultrasonic Nebulizer	1
10	Outpatient Department	Medical refrigerator S	2
11	Outpatient Department	Spirometry	1
12	Outpatient Department	Oxygen humidifier	21
13	Radiology	X-ray unit	1
14	Radiology	CR unit	1
15	Radiology	Image printer	1
16	Radiology	Ultrasound diagnostic apparatus (For Abdominal)	1
17	Pharmacy	Medicine cabinet	5
18	Pharmacy	Medical refrigerator L	3
19	Pharmacy	Rack	2
20	Rehabilitation & Physiotherapy	Muscle stimulator	1
21	Rehabilitation & Physiotherapy	Ultra sound therapy unit	1

Code No.	Department	Description	Quantity to be Procured
22	Rehabilitation & Physiotherapy	Electric adjusted pinth sling suspension therapy	1
23	Rehabilitation & Physiotherapy	Biofeedback	1
24	Rehabilitation & Physiotherapy	Mat/Roll/Wedge/Ball	1
25	Rehabilitation & Physiotherapy	Whirlpool bath	2
26	Rehabilitation & Physiotherapy	Wall bars	1
27	Rehabilitation & Physiotherapy	Parallel bar	1
28	Rehabilitation & Physiotherapy	Conductive education; Cubs	1
29	Rehabilitation & Physiotherapy	Conductive education; Bicycle	1
30	Rehabilitation & Physiotherapy	Standing table	1
31	Rehabilitation & Physiotherapy	Sitting table	1
32	Rehabilitation & Physiotherapy / Arrhythmia	Balancing table	1
33	Neurology	EEG	1
34	Neurology	EMG	1
35	Neuro Metabolism Laboratory	Liquid chromatography/Tandem mass spectrometry	1
36	Neuro Metabolism Laboratory	Plate Puncher	1
37	Neuro Metabolism Laboratory	Thermo plate shaker	1
38	Neuro Metabolism Laboratory	Weight (4 digits)	1
39	Neuro Metabolism Laboratory	Fumehood	1
40	Neuro Metabolism Laboratory/ Bacteria Test	Lab fridge(-80)	2
41	Training room	Central venous line simulator	1
42	Training room	Intra muscular injection simulator	1
43	Training room	CPR Neonatal simulator	1
44	Training room	Umbilical catheter simulator	1
45	Training room	Intubations simulator(Pediatric)	1
46	Training room	Intubations simulator(Neonatal)	1
47	Training room	CPR Pediatric simulator	1
48	Training room	Training Tables	6
49	Training room	Chair (for training table)	36
50	Training room	Wall mount projector	1
51	Training room	Projector	1
52	Training room	Projector screen	1
53	Training room	Emergency cart	1
54	Hematology	5 part automated cell counter	1
55	Hematology	Automated coagulation analyzer	1
56	Hematology	Research quality binocular microscope	1
57	Hematology	Incubator	1
58	Hematology/ Biochemistry	Centrifuge	2
59	Hematology/Biochemistry/ Bacteria Test	Two door reagent Refrigerator with lock	3
60	Hematology/Biochemistry/ Bacteria Test	Refrigerator with freezer and lock	3
61	Immunology	Automated immunology analyzer	1
62	Immunology	Fluorescent microscope	1
63	Immunology	ELISA Microplate reader & washer	1
64	Bacteria Test	T.B culture system	1
65	Bacteria Test	Automated blood culture system	1
66	Bacteria Test	Safety cabinet	1
67	Collagen/Bacteria Test	Binocular Microscope	3
68	Bacteria Test	Hemocytometer	2
69	Biochemistry	Automated chemistry analyzer	1

Code No.	Department	Description	Quantity to be Procured
70	Biochemistry	Automated electrolyte analyzer	1
71	Cardiomyopathy / Arrhythmia	High signal averaging ECG	1
72	Cardiomyopathy / Arrhythmia	Holter ECG	2
73	Cardiomyopathy/Catheterization/ Post operative cardiac surgery/Cardiology	Non-invasive monitor	5
74	Echo Laboratory	Echo machine A	2
75	Post operative cardiac surgery	Echo machine B	1
76	Cardiology	ECG	2
77	Cardiology	Exercise Test (Treadmill)	1
78	Outpatient Department	Consultation desk	20
79	Outpatient Departmen	Consultation chair	51
80	Outpatient Departmen	Wall-mounted suction unit	21
81	Biochemistry	Liquid waste collection container	1

The following table shows specification of planned major equipment list.

Table2-24 Specification of Planned Major Equipment

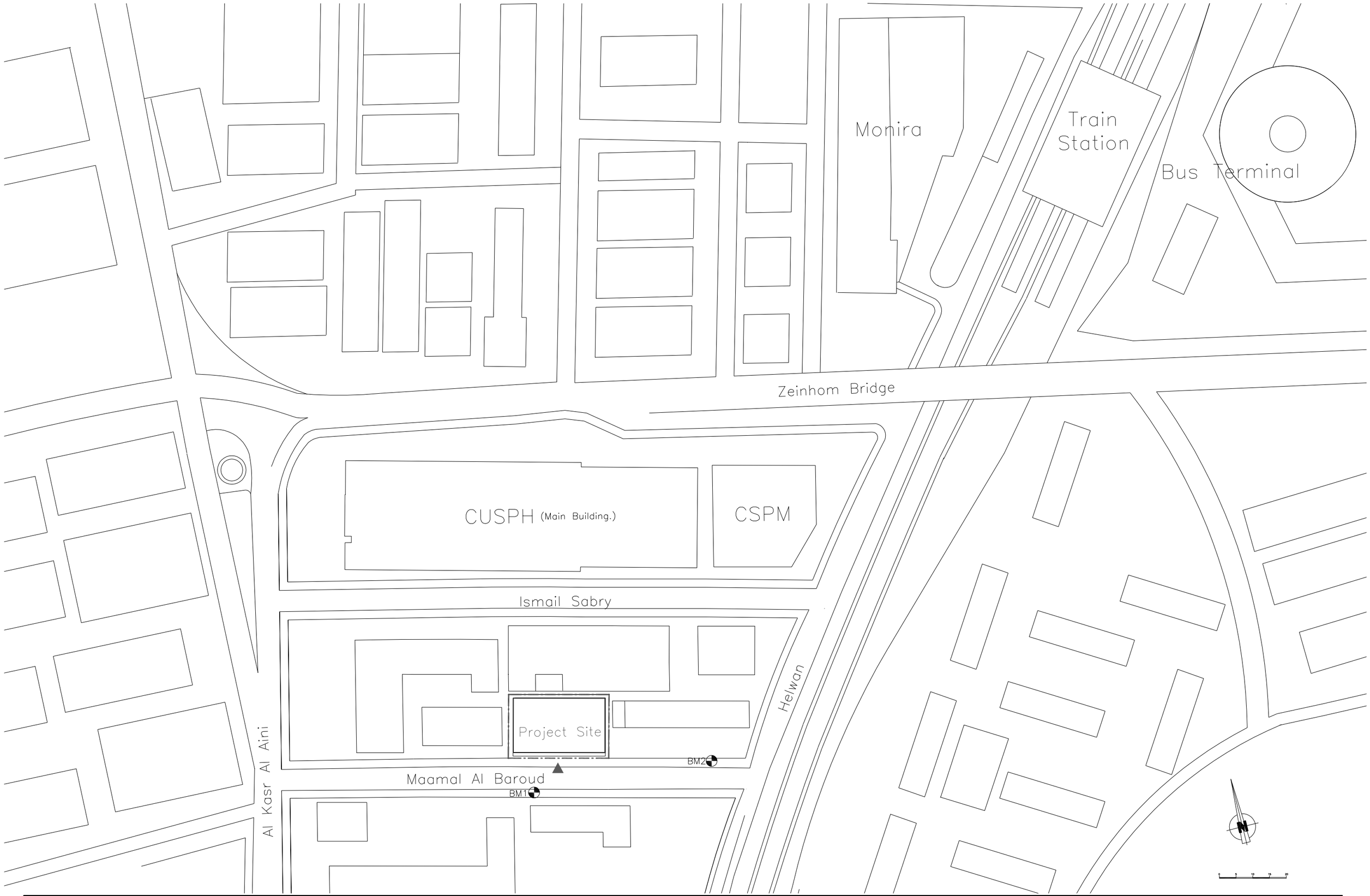
No.	Description	Qty	Purpose of Use, Justification of Equipment Grade
13	X-ray unit	1	For photographing pneumonia, fracture, tuberculosis, malnutrition and the chest of the respiratory illness patient. IP cassette digitizes an analog image by an image processing unit CR device and is advantageous to diagnosis instantly. Grade of equipment is general as tertiary medical facility.
14	CR unit	**1**	To convert image information accumulated in the imaging plate into a reading digital code. Grade of equipment is general as tertiary medical facility.
15	Image printer	1	To output a photographed image from X-ray unit. Grade of equipment is general.
16	Ultrasound diagnostic apparatus (For Abdominal)	1	To diagnose, intestines, kidney and urinary infection.
32	Balancing table	1	For assisting to rise of muscle stiffening patient such as infantile paralysis patient, and also utilize for head-up tilt tests for arrhythmia patients. Grade of equipment is general as tertiary medical facility.
33	EEG	1	To record movement of brain by electrodes attached to the head in order to use analysis of brain activity and diagnosis of brain disease such as epilepsy. Grade of equipment is general for pediatric specialized hospital.
34	EMG	1	To record and monitor active electrode as wavelength reflecting shrieked muscle. To diagnose amyotrophic lateral sclerosis (ALS) and myasthenia gravis. To plan how to rehabilitate for patients who has myopathy, cerebral palsy and infantile paralysis. Grade of equipment is general.
35	Liquid chromatography/Tandem mass spectrometry	1	To diagnose congenital metabolic disorder patient. To discover 25 kinds of dysbolism, such as amino acid dysbolism, organic acid dysbolism and the fatty acid dysbolism through the examination, and enable life-prolonging treatment by the improvement of the nutrition method. To inspect congenital pediatric dysbolism patient such as congenital disease. Grade of equipment is general as tertiary pediatric specialized medical facility.
36	Plate Puncher	1	For punching out a dry filter paper for a microplate automatically after gathering a very small amount of blood from toe of newborn

No.	Description	Qty	Purpose of Use, Justification of Equipment Grade
			baby as tertiary level medical facility.
38	Weight(4 digits)	1	To measure a medicine in consultation room. Grade of equipment is general.
54	Automated blood cell counter (5 parts differential)	1	To diagnose blood components such as red blood cell, white blood cell and platelet. Examination equipment which is necessary for pediatric internal disease patients, such as neonatal disease or respiratory disease. Grade of equipment is general for diagnosis internal medical disease.
61	Automated immunology analyzer	1	For detecting hormone such as thyroid hormone, gonadal hormone and tumor makers in the serum. Grade of equipment is general as tertiary medical facility.
62	Fluorescent microscope	1	To observe a parasitic worm. Grade of equipment is general.
63	ELISA Microplate reader & washer	1	For examination of hepatitis, HIV and syphilis. Grade of equipment is general as tertiary medical facility.
64	T.B culture system	1	For rapid diagnosis for detecting whether bacteria is existing or not through measuring continuous changes of the growth of bacteria in the blood collected in culture bottle. Grade of equipment is general as tertiary medical facility.
65	Automated blood culture system	1	For rapid diagnose blood components such as red blood cell, white blood cell and platelet. Grade of equipment is general.
66	Safety cabinet	1	For providing personnel protection from harmful agents inside the cabinet, and environmental protection from contaminants contained within the cabinet. Grade of equipment is general for facilities handling the agents.
69	Automated chemistry analyzer	1	For measure bilirubin value for pediatric jaundice patient, glucose for internal secretion disease patient and various blood enzymes value. To diagnosis the internal medical disease such as Hepatitis, the cirrhosis of the liver and fatty liver etc.
70	Automated electrolyte analyzer	1	For measurement the electrolyte such as Na, K, CL for neonatal patients. Grade of equipment is general.
72	Holter ECG	1	To record wavelength of electric activity of heart and diagnose arrhythmia continuously for twenty-four hours by carrying this devise.
74	Echo machine A	1	For visualizing internal shape, aspect or change with supersonic and use it to diagnosis circulatory organ. Grade of equipment is general as tertiary pediatric medical facility.
75	Echo machine B	1	For visualizing internal shape, aspect or change with supersonic and use it to diagnosis circulatory organ. This device to be shared at Postoperative Department, Catheterization and Cardiomyopathy Clinic. Grade of equipment is general as tertiary pediatric medical facility.

2－2－3 Outline Design Drawings

Table 2-25: List of Drawings

Drawing Items		Scale	Pages
1	Site 1	1/1000	65
2	Site 2	1/200	66
3	Plan 1(Pit - 3rdFL)	1/200	67
4	Plan 2(4thFL– 7thFL)	1/200	68
5	Plan 3(PH & RF)	1/200	69
6	Elevation	1/200	70
7	Section	1/200	71



EGYPT
Project for Construction of Outpatient Facility at Cairo University Specialized Pediatric Hospital

図面名称	Site 1
縮尺	1/1000
図面番号	枚ノ内
区分	

Collective Residence

Business School

Project Site

Language School

BM2

GROUND CONTROL POINTS

Point	E (m)	N (m)	ht (m)
BM2	637420.872	813087.042	29.539

BM2

Site 2

1/200

BM1

GROUND CONTROL POINTS

Point	E (m)	N (m)	ht (m)
BM1	637367.420	813094.261	29.437

Maamal Al Baroud

Legend

Site Boundry Line

Main Entrance

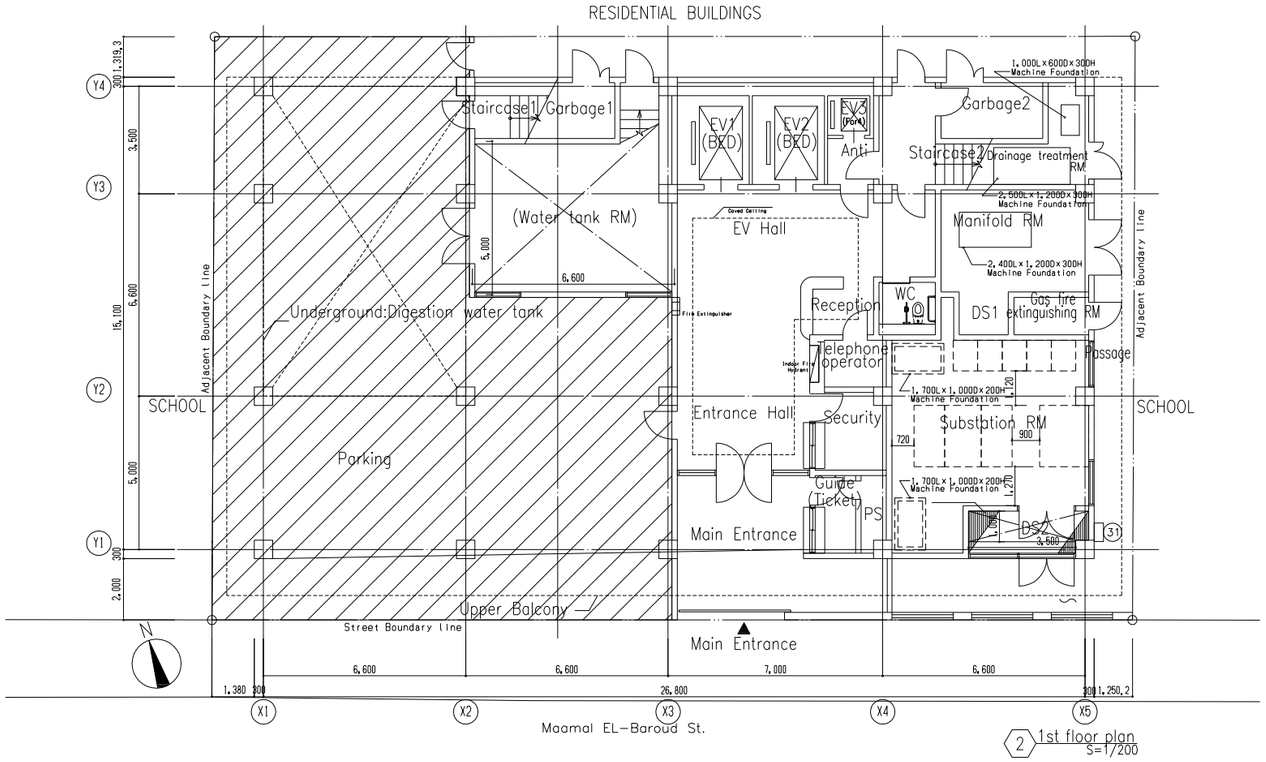
School

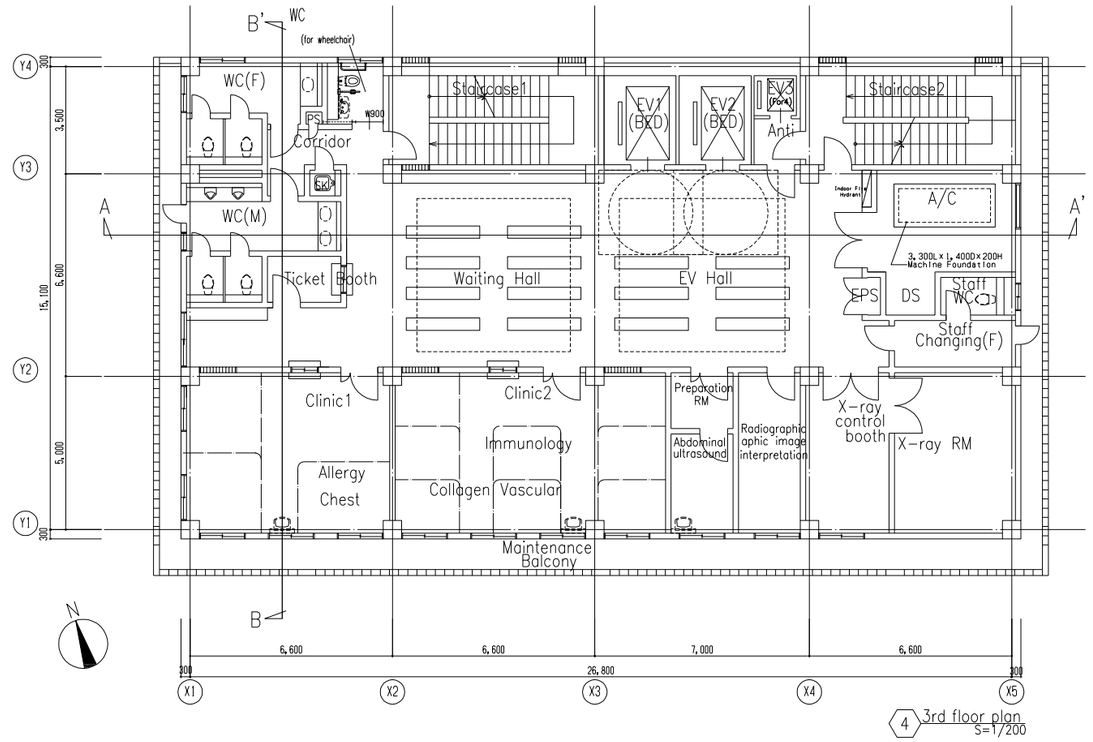
0 5 10 15 20

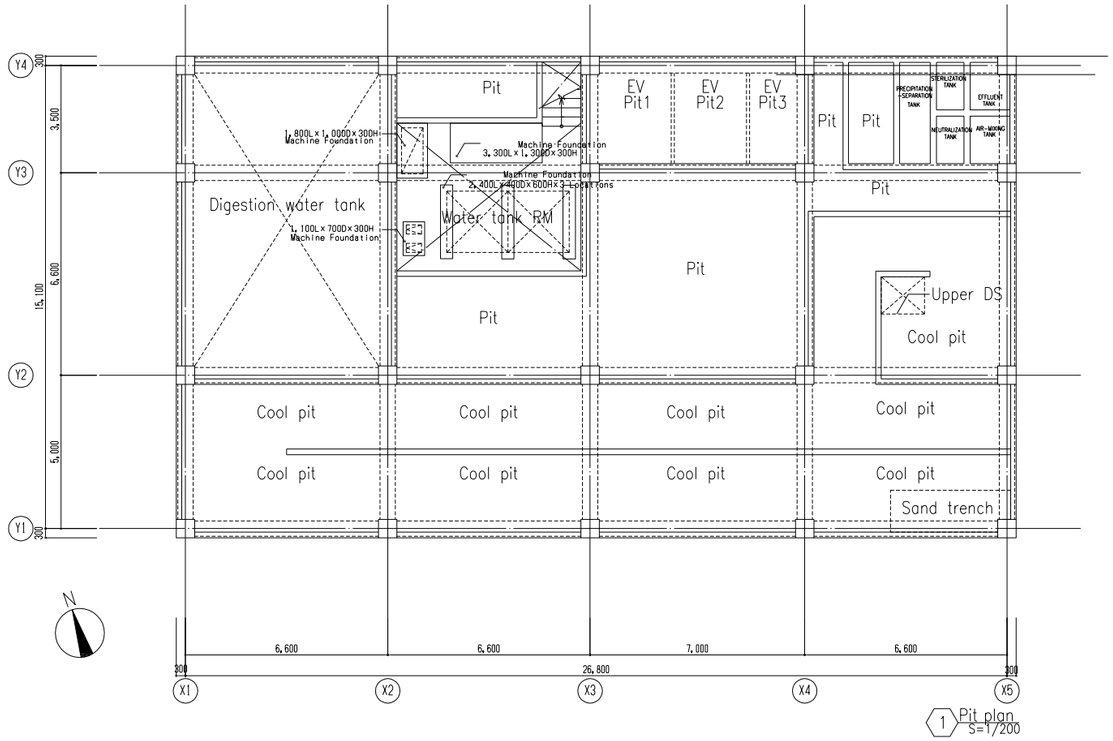
EGYPT

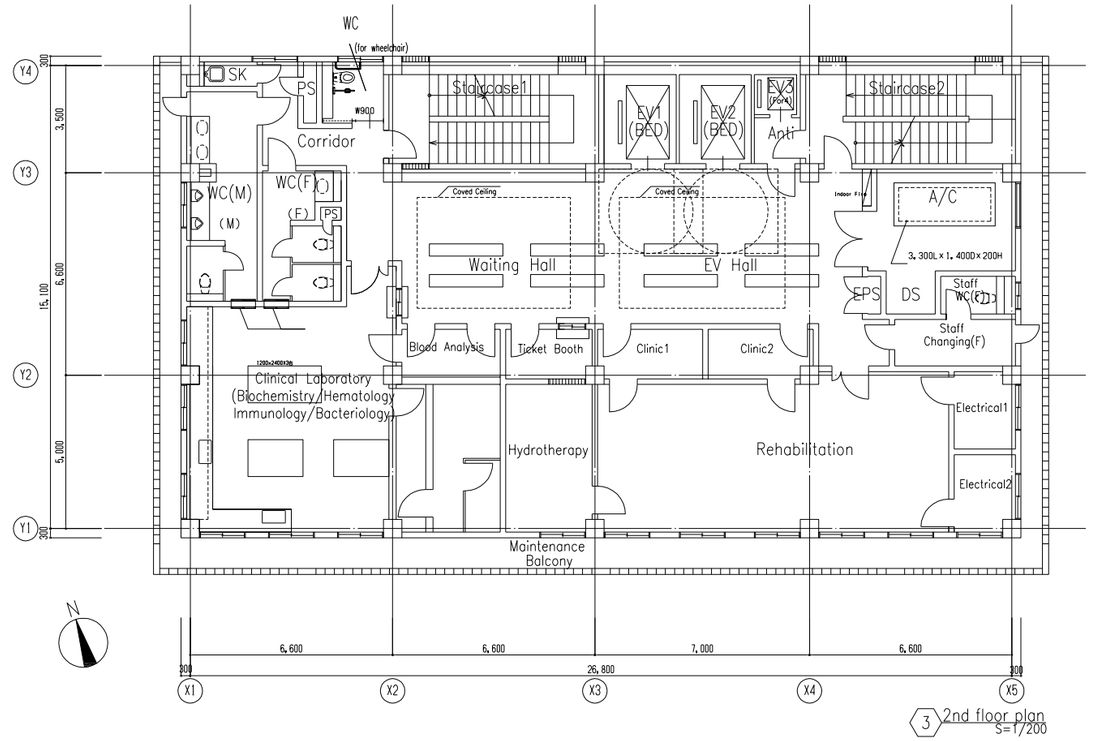
Project for Construction of Outpatient Facility at Cairo University Specialized Pediatric Hospital

図面名称	Site 2
縮尺	1/200
図面番号	枚ノ内
区分	





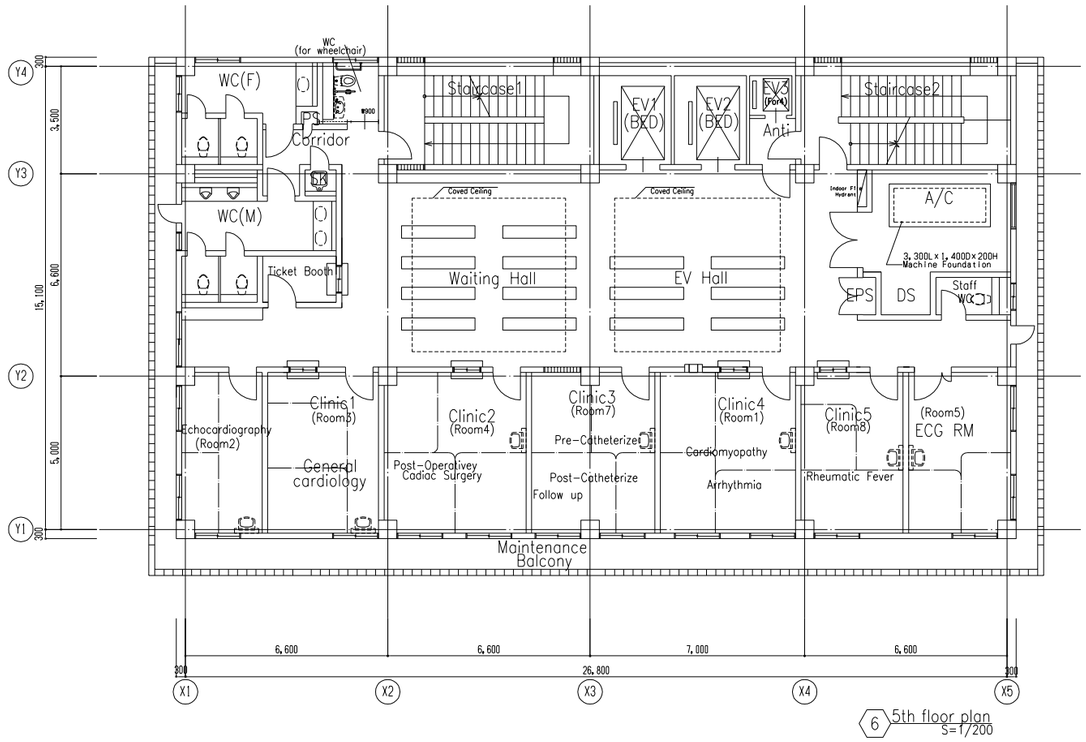




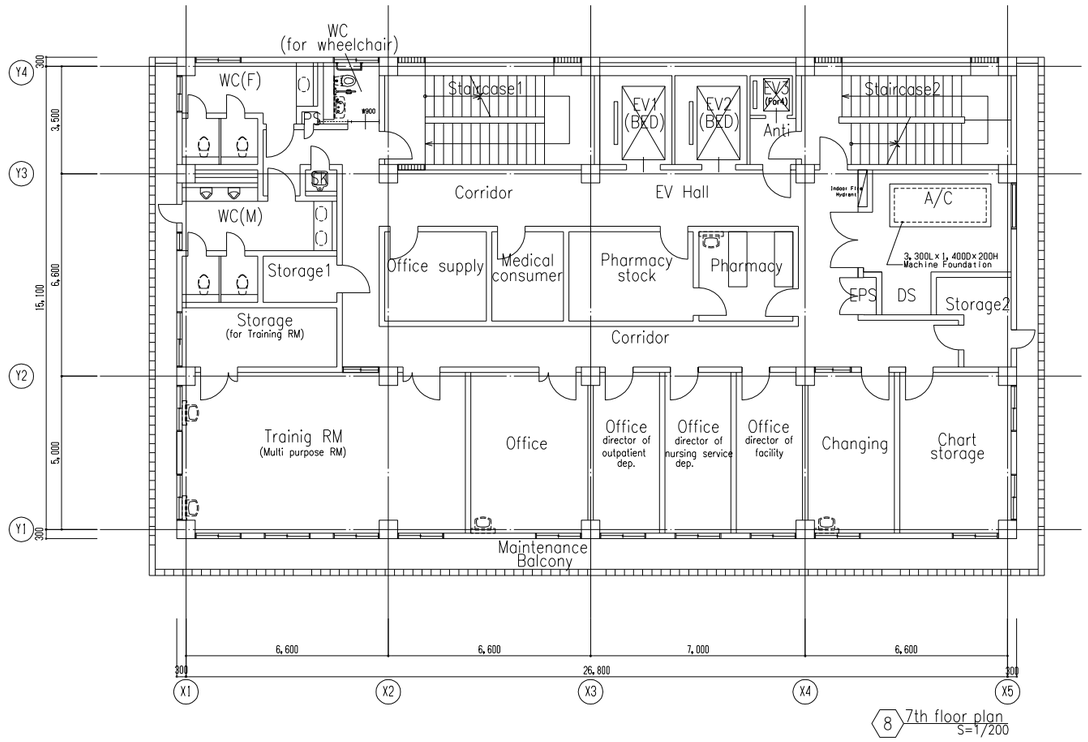
EGYPT

Project for Construction of Outpatient Facility at Cairo University Specialized Pediatric Hospital

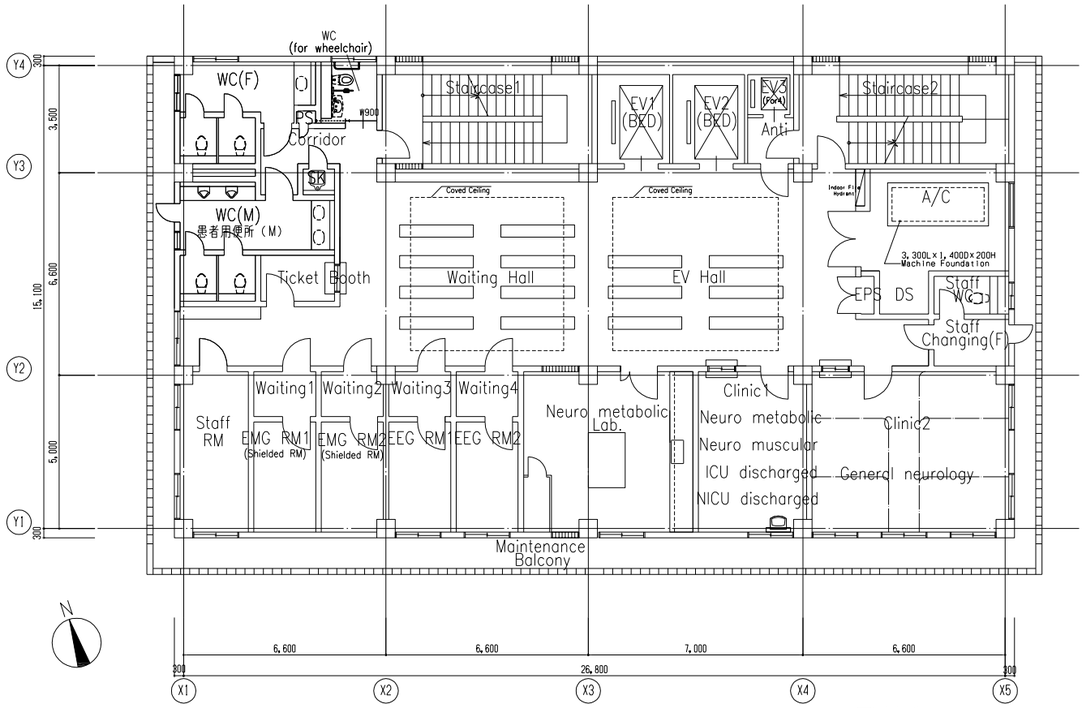
名称	Plan-1(Pit-3FL)
尺度	1/200
区分	校ノ内



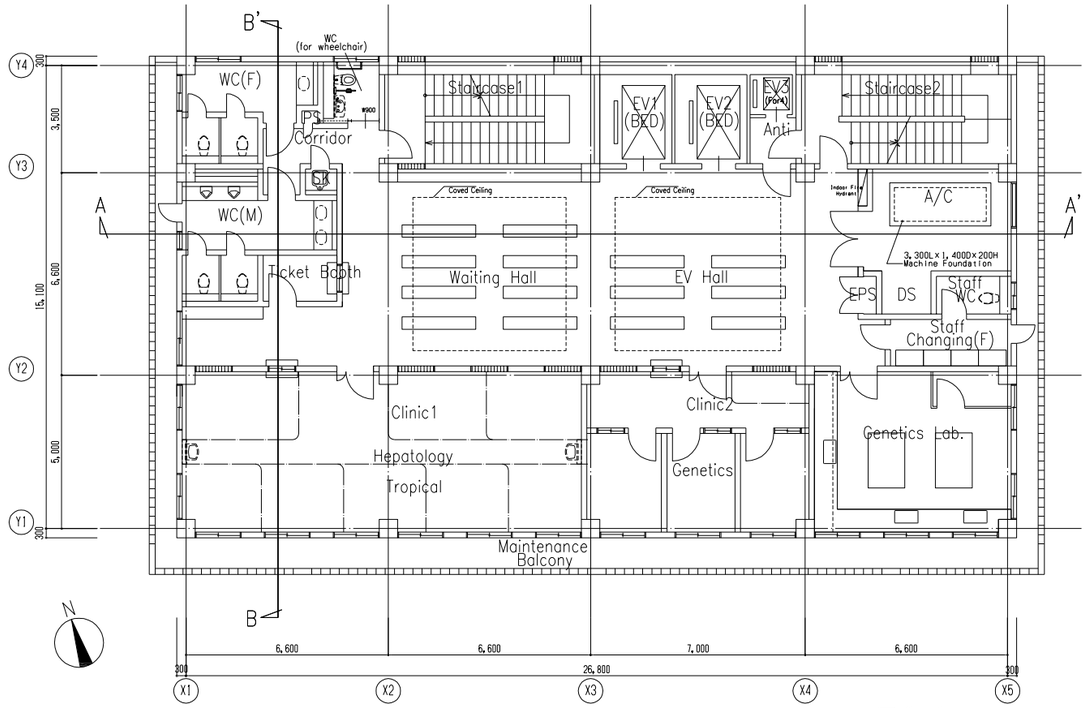
6 5th floor plan
S=1/200



8 7th floor plan
S=1/200



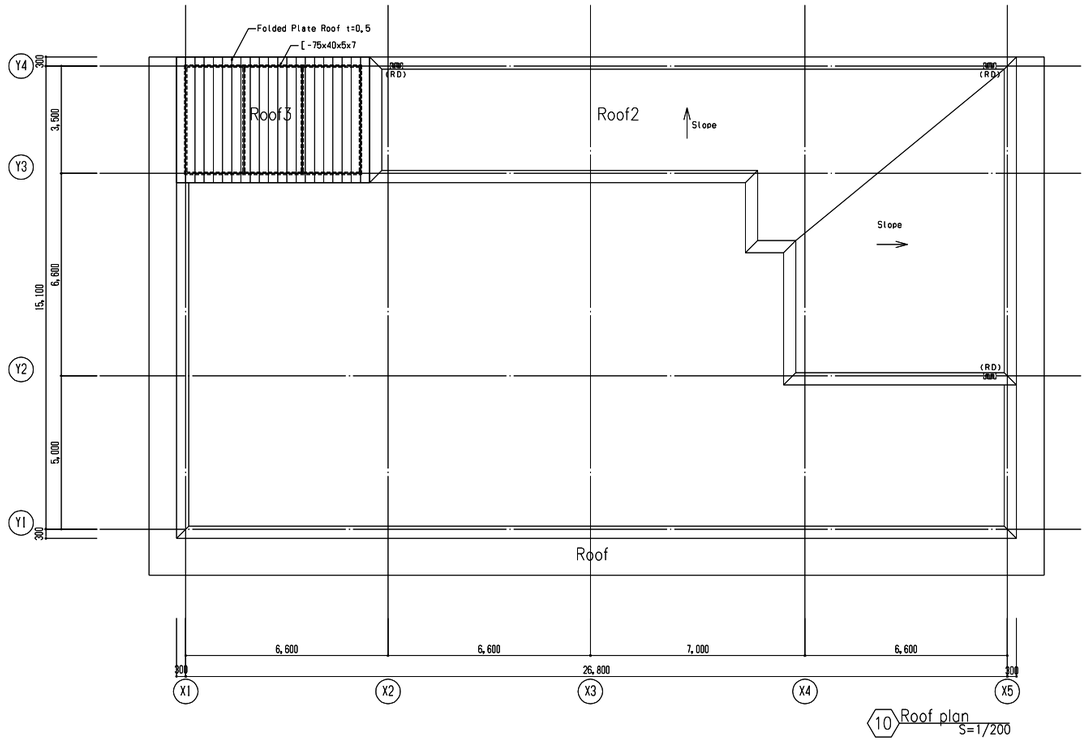
5 4th floor plan
S=1/200



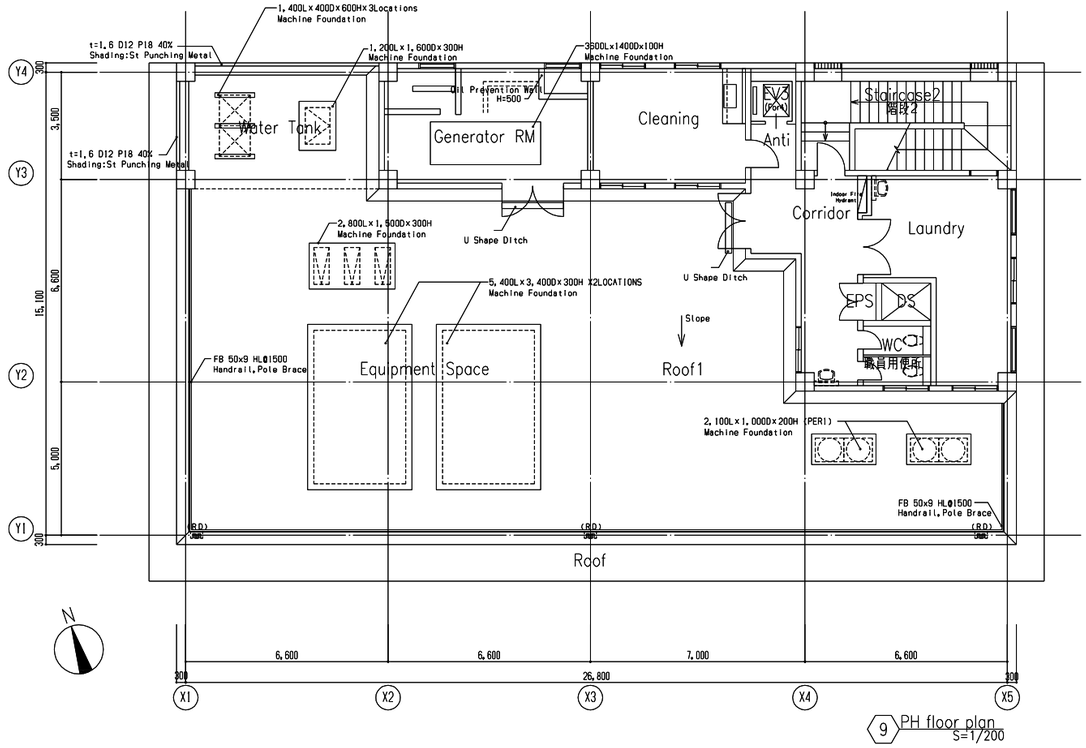
7 6th floor plan
S=1/200

EGYPT
Project for Construction of Outpatient Facility at Cairo University Specialized Pediatric Hospital

名称	Plan−2 (4−7F)
尺度	1/200
承認図 / 校ノ内	参考図
区分	



10 Roof plan
S=1/200

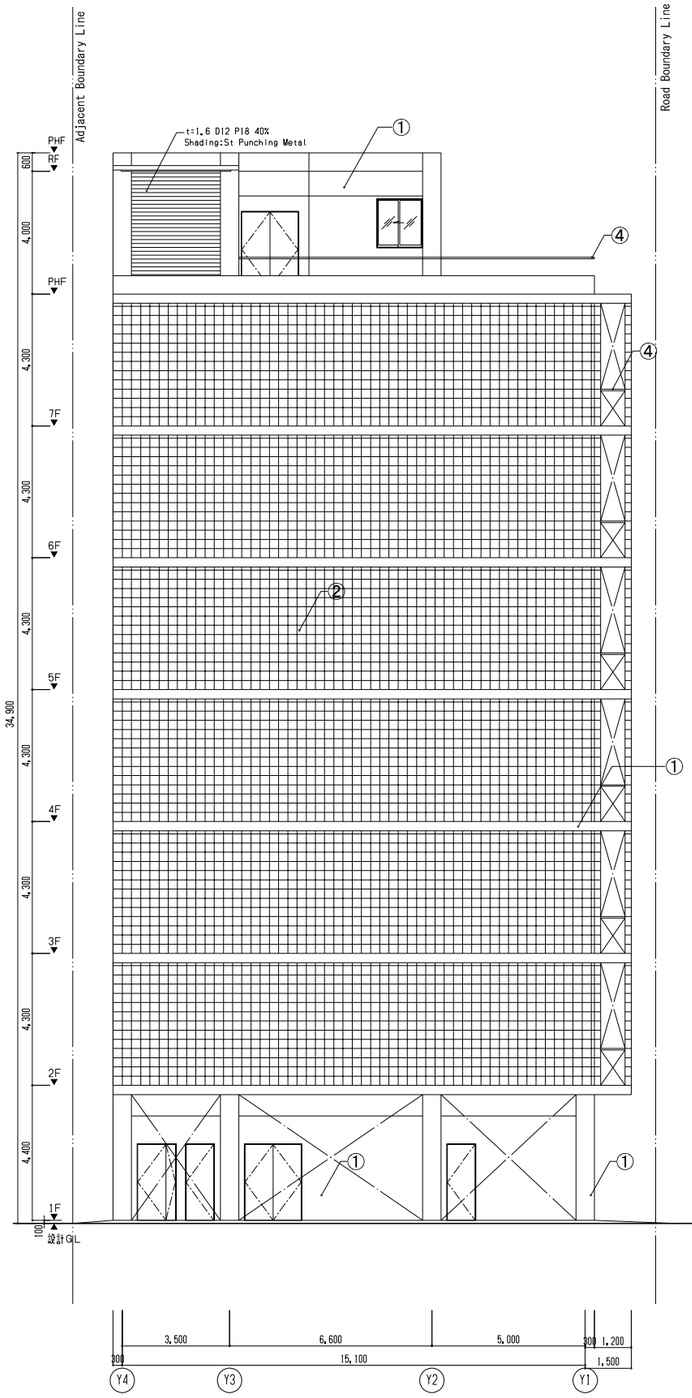


9 PH floor plan
S=1/200

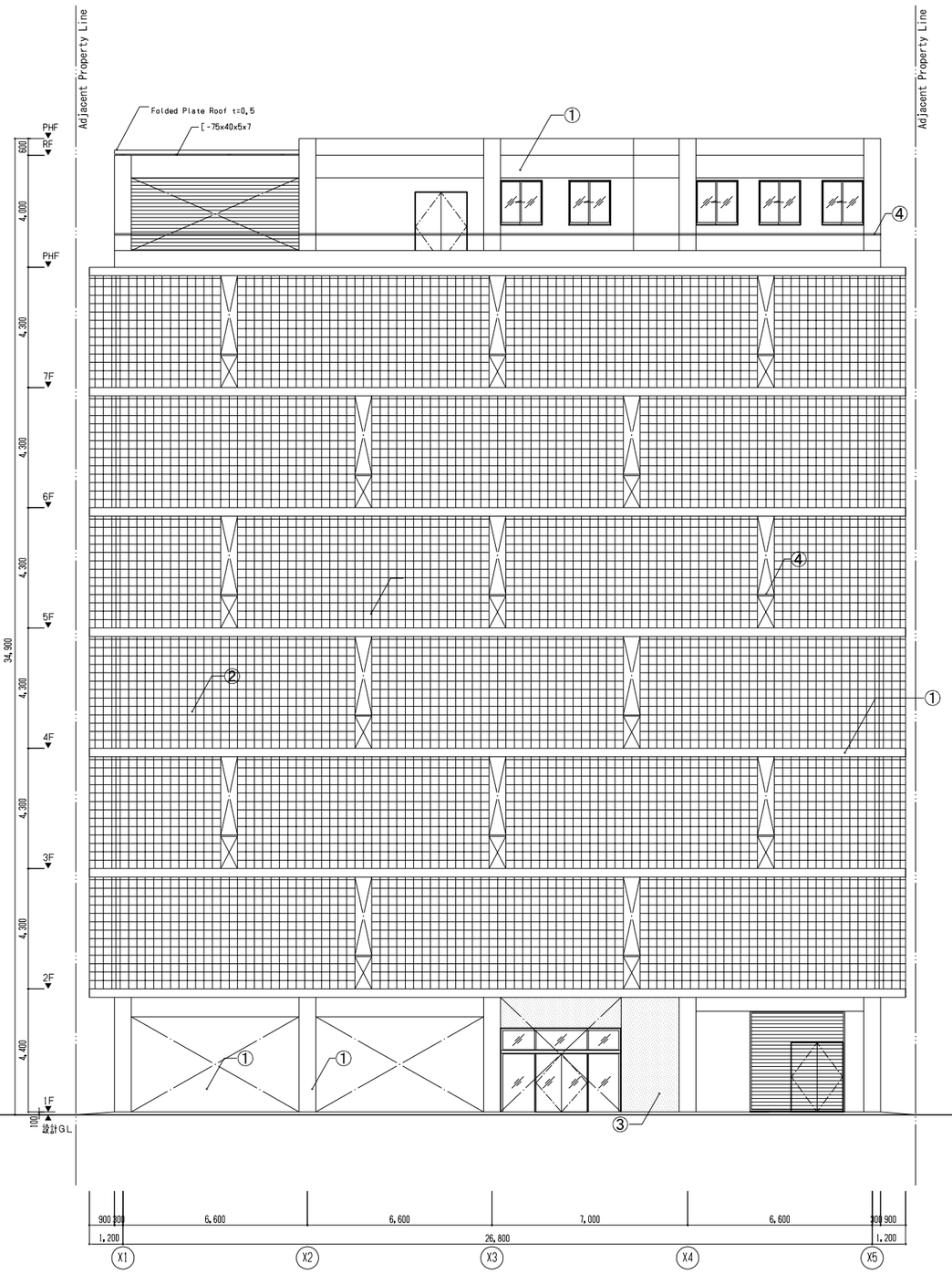
EGYPT
Project for Construction of Outpatient Facility at Cairo University Specialized Pediatric Hospital

縮尺	Plan-3(PH & RF PLAN)	承認 / 検討 / 作図
1/200		区分

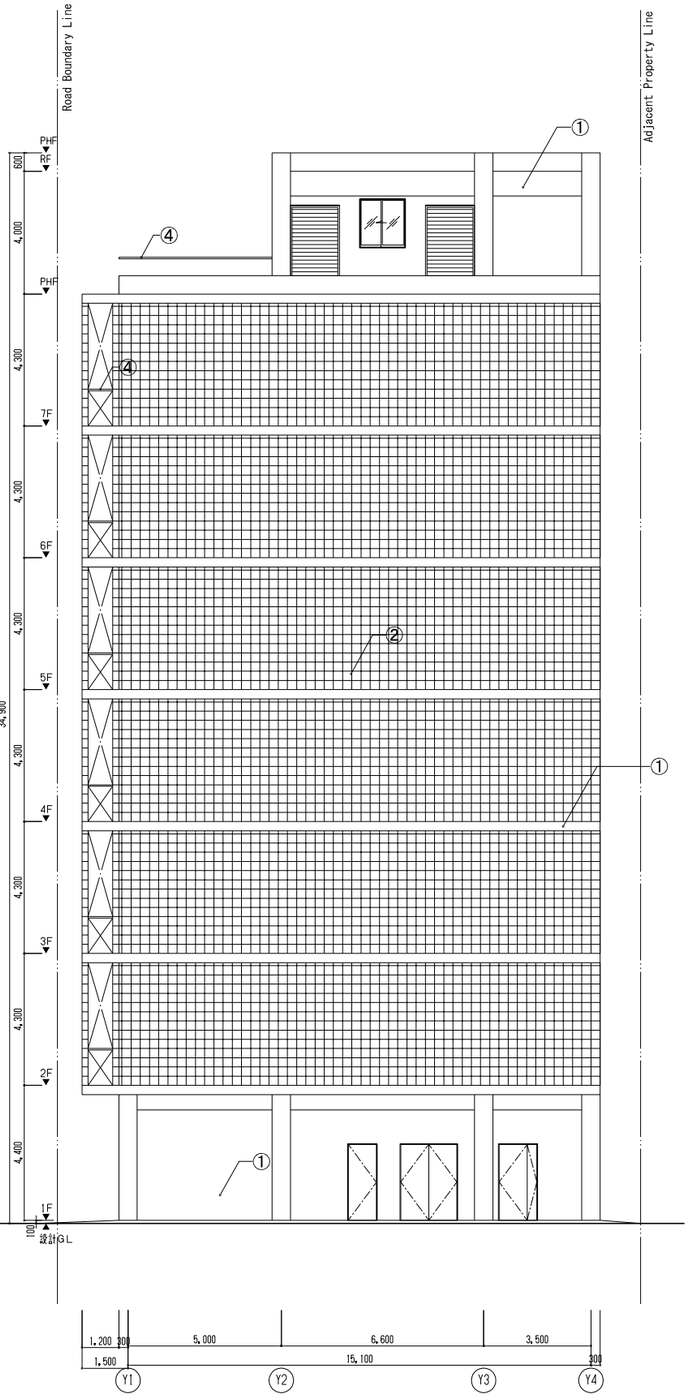
LEGEND
① Mortar+Painting
② Perforated Block
③ Stone
④ Hand Rail/Pole Brace FB 50x9 HLG150D



1 West Elevation
S=1/200



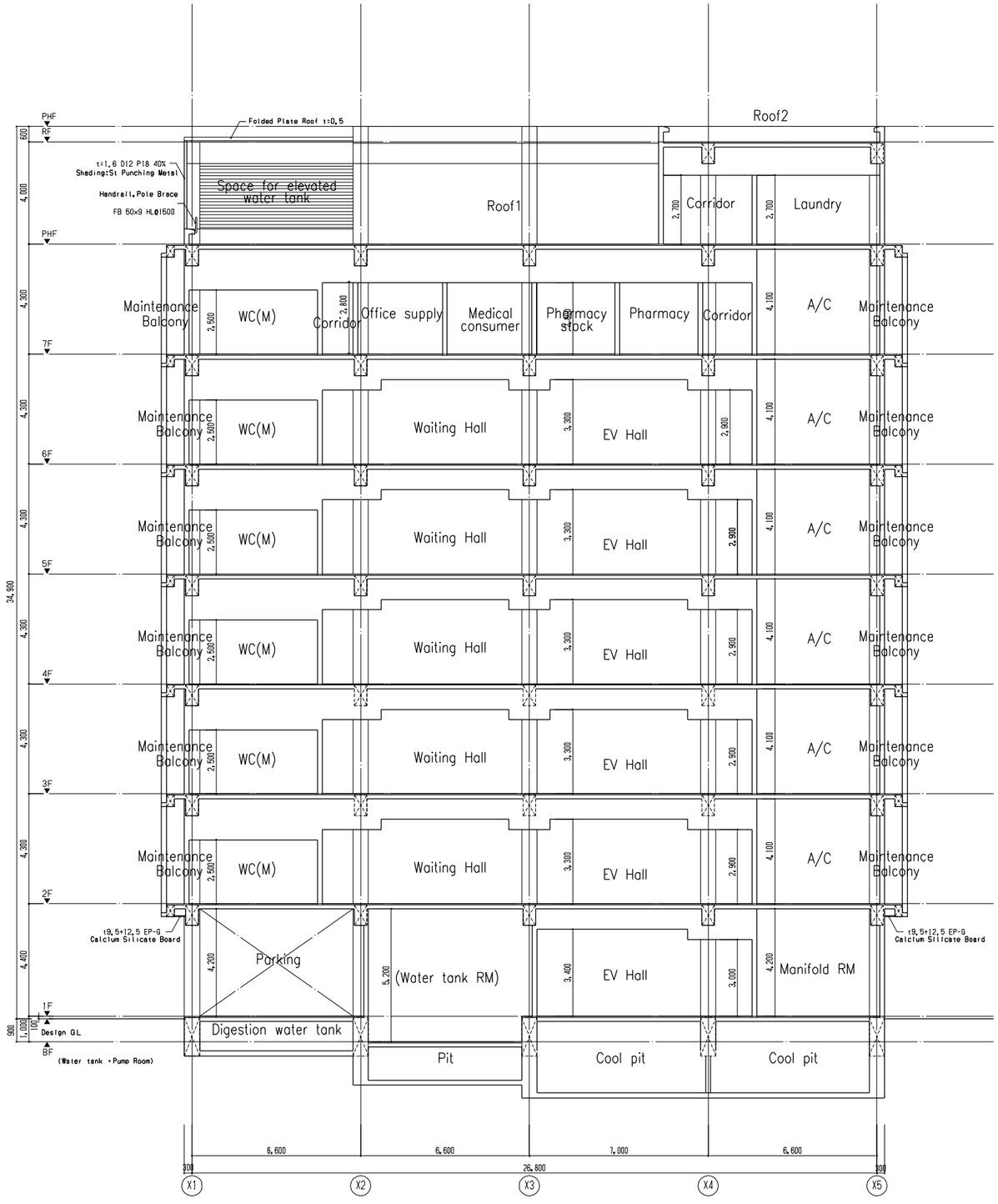
2 South Elevation
S=1/200



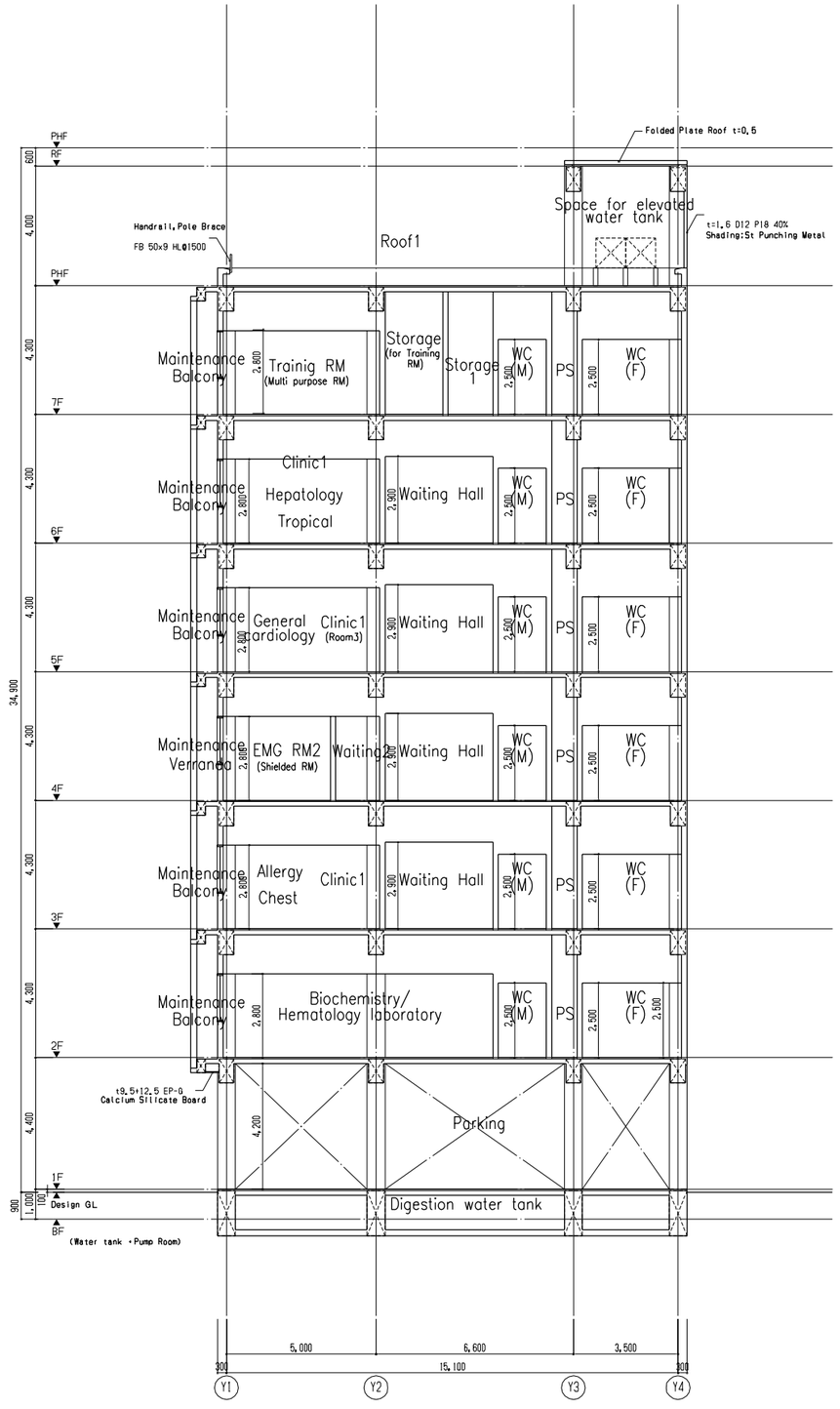
3 East Elevation
S=1/200

EGYPT
Project for Construction of Outpatient Facility at Cairo University Specialized Pediatric Hospital

名称 図面名	Elevation
尺度	1/200
図番 枚ノ内	
区分	



1 A–A' Section S=1/200



2 B–B' Section S=1/200

EGYPT
Project for Construction of Outpatient Facility at Cairo University Specialized Pediatric Hospital

図面名称	Section
縮尺	1/200
図番	
枚/内	
区分	

2－2－4 Implementation Plan

2－2－4－1 Implementation Policy

This project consists of construction of the Outpatient Facility and procurement / installation work of equipment and materials. The Japanese scope of cooperation is implemented by the framework of grant aid of the Japanese government and it is to be officially implemented after it is decided by the Cabinet Meeting of the Japanese government and the Exchange of Note (E/N) and the Grant Agreement (G/A) regarding the implementation of this project are concluded between the governments of both countries.

The implementation of detailed design work for the project is to be implemented by concluding the consultancy agreement between an Egyptian implementation organization and a Japanese consulting company immediately after signing of the E/N. After completion of the detailed design, Japanese contractors and equipment suppliers will be invited to tender, and successful bidders will carry out the construction work and equipment work respectively.

Key considerations for implementing the Project are described below.

(1) Implementation Organization

The responsible organization of the project is Cairo University and the implementation agency is the Management Department of the Cairo University Hospital and CUSPH. Cairo University will make and enter into the consultancy agreement, construction work contract, and equipment work contract of the Project.

CUSPH will be responsible for work to be undertaken by the Egyptian side to implement the Project, and will manage and maintain the facilities and equipment of the Project.

(2) Consultancy

After both governments make and agree upon the E/N and G/A the consulting company will make and enter into a consultancy agreement with Cairo University. Egypt shall carry out the following duties in accordance with the Grant Aid Scheme of the Government of Japan. It is important to finalize the agreement promptly after conclusion of the G/A in order to implement the Project on schedule, and the agreement will take effect upon approval from JICA.

1） Detailed design

The consulting company will review the details of the architectural plan and the equipment plan and prepare a bidding document package consisting of detailed design drawings, specifications, instructions to bidders and a draft construction/equipment work contracts based on the preparatory survey.

2） Tender assistance

The consulting company will attend the bid to be managed by the implementing organization to select the contractors of construction and equipment works, assist in administrative work and related processes, and report to the Government of Japan.

3) Construction supervision

The consulting company shall confirm that the construction work contractor and equipment supplier perform the work in accordance with the respective contracts and ensure that the contracts will be performed and fulfilled properly.

(3) Placement of Orders for Construction Works and the Procurement of Equipment

The contractors of the Project shall consist of a contractor to build the Outpatient Facility, and an equipment supplier to procure, install and test medical equipment and training equipment. The contractor and equipment supplier are restricted to Japanese companies meeting certain qualifications, and will be selected by a public tender. In principle, successful bidders will be determined through negotiation with the lowest bidders.

Cairo University of Egypt will conclude construction work and equipment work contracts with each successful contractor selected by the bidding process and receive the authorization of those contracts from JICA.

After the authorization, the contractor and equipment supplier will commence their work (construction work of the facilities, procurement, installation and commissioning of equipment) and execute it in accordance with the contract.

2－2－4－2 Implementation Conditions

(1) Schedule Management

As Egypt belongs to the desert climate and it has little rainfall, it is not likely that the construction schedule is affected by the weather. However, as the site is located in the urban area in Cairo City where passage of load carrier large vehicles of 7 tons or over is prohibited during daytime and concrete mixer vehicles and large carrier vehicles cannot be used, concrete placement work is to be conducted during nighttime. Therefore, schedule management shall be implemented in consideration of the placement range and amount of placement to ensure efficient concrete placement by the nighttime construction work.

(2) Temporary Work Plan

The construction site of the Outpatient Facility is located in the urban are as described above and it is surrounded on three sides by neighboring buildings. Therefore, temporary fences are installed on the road side in front of the site to secure safety of the users of the front road. Also, it is planned to install construction work gates for carrying in materials and arrange a traffic control person in order to secure safety during carrying in the materials.

(3) Considerations on the equipment procurement

Among the equipment and materials to be procured, general X-ray diagnostic unit is included as the equipment whose connection during construction work and installation is complicated for the facility construction work. Therefore, close contact between the consultant and the construction work company shall be kept to conduct process supervision of procurement, installation, etc.

2－2－4－3 Scope of Works

The demarcation of the works between the Japanese and Egyptian sides is clearly determined in order to implement the Project smoothly. The scope of works undertaken by the both sides will follow the general policies stated below. Table 2-26 shows the details.

(1) Works Undertaken by the Japanese Government

The Japanese side shall be responsible for consulting services, construction of the Outpatient Facility and the procurement/installation of equipment under the Project.

(2) Works Undertaken by the Egyptian Government

The Egyptian side will be responsible for duties associated with the application for and the acquisition of permission for construction facilities; securing a planned construction site as well as a temporary site and tax exemptions.

Table 2-26: Scope of Construction

Construction item	Japanese scope of construction	Egyptian scope of construction
I. Securing of the construction site		Securing of the construction site , temporary site such as material yard, etc.
II. Acquisition of the construction permission		Acquisition of permission and authorization required for the construction work
III. Preparation of the Site		Land preparation for the site and removal of existing facilities • Removal of existing structures (including the foundation)
IV. Exterior Work	Exterior Work around the Outpatient Facility • Construction work for parking area and Road within the site	
V. Facilities Work	1) Construction of the Outpatient Facility • Building construction work, electrical and mechanical construction work • Elevator work • Others (Medical Gas Supply, etc.)	1) Installing of elEctricity,Waterworks, lines Gas and Telephone line to the construction site 2) Extending of the main sewer piping up to the construction site 3) Furniture • General furniture • Curtains / blinds
VI. Medical equipment and materials	Prcurement and installing of medical and training equipment and materials	Moving and installing of existing medical equipment and materials

Source: Preparatory Survey Team

2－2－4－4 Consultant Supervision

A Japanese consulting company (the Consultant) will conclude a consultancy agreement with Cairo Univaersity, carry out the detailed design of the Project (preparation of tender documents, etc.), and will provide tendering and construction/ equipment work supervision. The construction supervision is intended to ensure proper fulfillment of the construction/equipment contracts, including monitoring the all the works are performed according to the design documents. When instructing, advising and coordinating during the construction period, the consulting company will ensure quality and schedule management. The construction supervision consists of the following duties:

(1) Assistance in the Tendering and Award of the Contracts

The Consultant shall prepare tender documents required to determine contractors for construction and equipment works and perform works related to tendering (including notice of the tenders, acceptance of intention to tender, screening of qualifications, briefing of the tender brief, distribution of tender documents, acceptance of the tender documents and evaluation of the tender results). Furthermore, it shall advise and assist to conclude the construction/equipment contracts between the selected contractors and Cairo University of Egypt.

(2) Instruction/Advice/Coordination for Contractors

The Consultant shall review the construction schedule, the construction plan, the construction materials procurement plan, the equipment procurement & installation plan and other similar factors, and provide instructions and advice to contractors and coordinate with them.

(3) Inspection & Approval of Construction Drawings, Fabrication Drawings, etc.

The Consultant shall review construction drawings, shop drawings and other similar documents submitted by contractors, and provide necessary instructions and approvals.

(4) Confirmation & Approval of Construction Materials and Equipment

The Consultant shall confirm the consistency of construction materials and equipment to be procured by constructors with reference to construction/equipment contracts and other documents, and give approval to select and use them.

(5) Construction Inspection

If necessary, The Consultant shall inspect the manufacturing plants of the construction materials and equipment, witness construction tests and inspect quality and required performance.

(6) Reporting Work Progress

The Consultant shall monitor the progress of the construction schedule and construction works on-site, and report work progress to the relevant organizations of both countries.

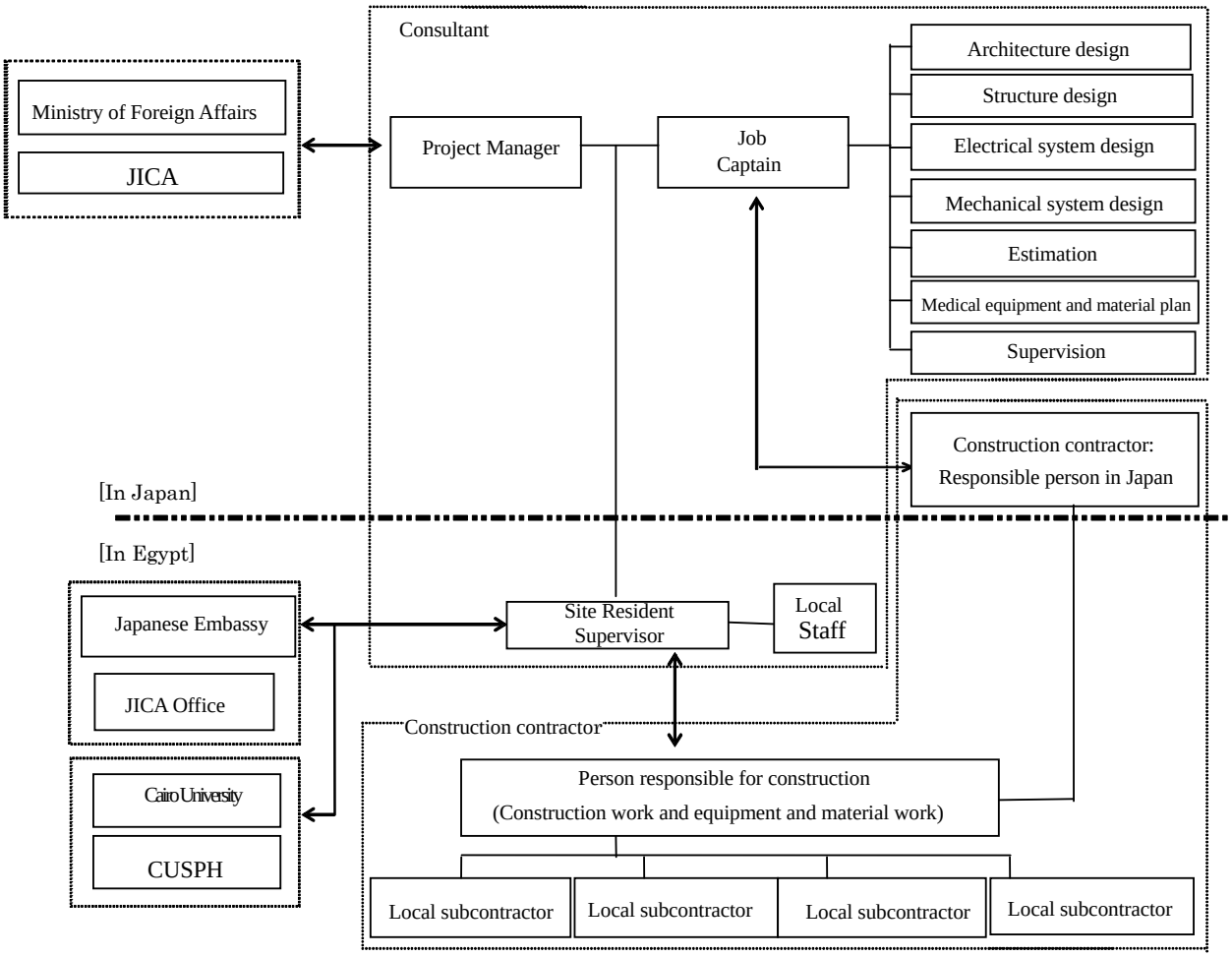
(7) Completion Inspection and Operation Test

The Consultant shall conduct a completion inspection of the facilities and equipment, and attend the tests to verify that the performance stated in the construction/equipment contracts is ensured, and submit an inspection report to Cairo University.

(8) Construction Supervision System

The Consultant will assign one resident supervisor to the site to carry out the aforementioned works. In addition, specialty engineers of each field will be dispatched to perform the necessary consultations, inspections, guidance and coordination according to the progress of work. At the same time, engineers stationed in Japan shall also be assigned to carry out technical reviews and communications with the site. Additionally, necessary information of the Project progress (including work progress, application for the payments and final handing-over, etc.) shall be reported to the relevant government agencies in Japan.

Figure 2-19 represents the Consultant's Supervision Organization.



Source: Preparatory Survey Team

Figure 2-19: Consultant's Supervision Organization.

2－2－4－5 Quality Control Plan

(1) Concrete Work

The concrete quality control plan is based on the Japanese Standard Specifications for Public Works Construction (Public Buildings Association, Ltd.), "Guideline to Building Construction Work Supervision (Building Maintenance & Management Center)" and JASS5 (Architectural Institute of Japan); however, quality control plan which is commonly used in Egypt shall be incorporated as needed.

1) Mix proportion plan

The mix proportion plan is specified by a trial mixing. The trial mixing shall be conducted until the planned slump, planned air volume, required air-dried unit volume mass and blending strength are obtained.

2) Curing

Curing of the specimens is executed in the water in the field. The curing temperature shall be set to as close to the building condition as possible. Sampling of specimens shall be conducted every placement day and for 150 m^3 per time.

3) Strength test

The strength for concrete shall be checked by the compressive strength of material age of 7 days and 28 days as a rule. Checking of the compressive strength of the specimens shall be performed by a third party organization.

4) Chloride content

Chloride content shall be checked by the method which is commonly used in Japan.

(2) Reinforcement Work

Processing of the reinforcement shall be performed by the reinforcement supplier maker. Quality control and inspection during processing and assembling of the reinforcement shall be based on the Standard Specifications for Public Works Construction (Public Buildings Association, Ltd.) and JASS5 (Architectural Institute of Japan).

1) Reinforcement arrangement inspection

Constructor shall receive the reinforcement arrangement inspection from the construction supervisor prior to the placement of concrete after the assembly of reinforcement. The inspection points are according to the instruction of the construction supervisor.

2) Tensile test

Constructor shall confirm the strength by conducting the tensile test of the reinforcement. The test frequency is according to the instruction of the construction supervisor.

(3) Form Work

Quality control and inspection during formwork shall be based on the Standard Specifications for Public Works Construction (Public Buildings Association, Ltd.) and JASS5 (Architectural Institute of Japan).

Constructor shall receive inspection of the clearance between the form stop and the outermost reinforcement from the consultant prior to the placement of concrete. The inspection points are according to the instruction of the resident supervisor.

(4) Inspection of the Finish of Structure Concrete and the Covering Depth

Inspection of the member location, cross-section dimensions, surface finish flatness of the structure concrete, placement defects, and the covering depth shall be based on the Standard Specifications for Public Works Construction (Public Buildings Association, Ltd.) and JASS5 (Architectural Institute of Japan). The measures to be taken in the case that the finish of structure concrete and the covering thickness do not conform to the standards shall be according to the instruction of the consultant.

2－2－4－6 Procurement Plan

(1) Procurement of Construction Materials

Although construction materials made in Egypt are aggregate such as sand and gravel, lumber, bricks, etc. and other materials are imported from Middle East and Europe, they are commonly distributed by local agencies. In this project, materials that can be procured in Egypt shall be used and the method that can be achieved by the local construction techniques shall be used in consideration of the future maintenance, etc.

Table2-27: Procurement plan for major construction materials and equipment

Construction work category	Material	Procured (in):			Remarks
		Locally	Japan	Third country	
Reinforced concrete work	Portland cement	○			
	Fine aggregate	○			
	Coarse aggregate	○			
	Concrete	○			
	Deformed bar		○		Procurement in Japan is more inexpensive
	Framework	○			
Steel work	Steel frame	○			
Masonry	Brick	○			
Water-proof work	Silicon / Sealing material (around the glass / sash)	○			
Plaster work	Cement mortar	○			
Tiling work	Tile	○			
Wood work	Fixture lumber	○			
Metal work	Light-weight ceiling base	○			
	Decoration fitting / handrail	○			
	Curtain rail for consultation room	○			
	Aluminium ceiling inspection opening, metal fitting, grating, manhole cover	○			

Construction work category	Material	Procured (in):			Remarks
		Locally	Japan	Third country	
Metal fixture work	Aluminium fixtures	○			
	Steel fixtures	○			
	Light-weight steel fixtures	○			
	Fitting hardware	○			
Glass work	General glass	○			
	Glass block	○			
Painting work	Inside painting	○			
	Outside painting	○			
Interior finishing	Vinyl flooring sheet	○			
	Plaster board	○			
	Rock wool acoustic board system ceiling	○			
	Calcium silicate board	○			
	PVC ceiling rim	○			
Miscellaneous work	Sink, medical sink	○			
	hanging shelf	○			
	Wooden fixture	○			
	Room name plate, guide plate, building name plate	○			
Exterior work	Curb stones	○			
Electrical work	Substaion equipment	○			
	Generator	○			
	Panels	○			
	Lighting fixture	○			
	Wiring device	○	○		Partially Japanese: To secure quality
	Telephone equipment	○			
	LAN equipment	○			
	Television equipment	○			
	Fire alarm equipment	○	○		To secure quality
	Public address equipment	○			
	Intercom equipment	○			
	Security equipment	○			
	Electric wire	○			
	Power cable	○			
	Telecommunication cable	○	○		Partially Japanese: To secure quality
	Piping	○	○		Partially Japanese: To secure quality

Construction work category	Material	Procured (in):			Remarks
		Locally	Japan	Third country	
Mechanical work	Air cooled water chiller	○			
	Chilled water pump	○			
	Outdoor air handling unit	○	○		To secure quality
	Fan coil unit	○			
	Package-type air conditioner	○			
	Expansion tank	○			
	Ducting material	○			
	Piping material	○			
	Water receiving tank / elevated water tank		○		To secure quality
	Sanitary fixture	○			
	Water lift pump, drainage pump	○			
	Automatic control system		○		To secure quality
	Medical gas system		○		To secure quality
	Neutralization / Sterilization treatment plant		○		To secure quality
	Water treatment system		○		To secure quality
	Fire protection system (water fire fighting, gas fire extinguishing)		○		To secure quality
	Fire extinguishing system (fire extinguisher)		○		To secure quality

Source: Preparatory Survey Team

(2) Procurement Plan

Japanese equipment is to be procured in conformity with the principle of the ODA project procurement in case there is an agency for the after-sale service in Egypt. The domestic production of the medical equipment is limited in Egypt and an import-dependence rate is high, and the amount of import is considered to reach around 95% of the whole market. Therefore, the procured equipment is to be from Japan and third countries.

(3) Transportation Plan

Major and common route for equipment and material transportation from Japan to the construction site in Cairo is via the Suez Canal in Egypt to land at the Port of Alexandria and take land route (Alexandria Desert Road) for inland transportation. Also, wooden package to Egypt requires disinfection and disinfected marking, etc. under “the International Standard for Phytosanitary Measures” (ISPM No.15) adopted by the Food and Agriculture Organization (FAO).

2－2－4－7 Operational Guidance Plan

Equipment operation training is divided into three groups, for image diagnostic equipment and physiology examination, for laboratory equipment and for other equipment.

Table 2-28 Initiated Operational and Management Instruction

Trainer	Description	Contents of Instruction	Necessary Days
① Image diagnostic equipment Engineer/technician of local agents located in Cairo	Digital X-ray unit, Ultrasound scanner(for abdomen), Echo machine, EEG, EMG	Operational method Usage of application Daily check method	12 days
② Physiology examination equipment / laboratory equipment Local agent equipment engineer/technician of laboratory	5 parts automated cell counter, Automated blood coagulation machine, Automated immunology analyzer, ELISA Microplate reader & washer, T.B culture system, Automated blood culture system, Fully automated chemistry analyzer, Automated electrolyte analyzer, Liquid chromatography/Tandem mass spectrometer for metabolic syndrome	Operational method Daily check method	17 days
③ Other equipment Local agent Equipment engineer/technician	Other medical equipment (Non-invasive monitor, Examining Lamp, CR unit, ECG, High signal averaging ECG, Holter ECG)	Operational method Daily check method	7 days

2－2－4－8 Soft Component (Technical Assistance) Plan

Although there is a request from the CUSPH of the soft component regarding “Improvement in the in-hospital repair of anesthesia apparatus and other outpatient equipment and materials”, it has been decided that the soft component plan shall not be implemented as a result of the review on the request contents as they conflict with the Product Liability Act (PL Act).

2－2－4－9 Implementation Schedule

Figure 2-20 shows the implementation schedule after the G/A is concluded. The schedule consists of the Consultant’s detailed design work, tender and supervision work, as well as the contractor’s building construction work.

(1) Detailed Design Work

After concluding the consultant agreement on the detailed design (creation of bidding documents) for this project between Cairo University of Egypt and a Japanese consulting company, the certification of the contract is obtained from the Government. of Japan After that, the consultant consults with Cairo University of Egypt and creates tender documents based on this Preparatory Survey Report to obtain the approval from Cairo University. The detailed design period (creation of tender documents) is estimated as 3.5 months.

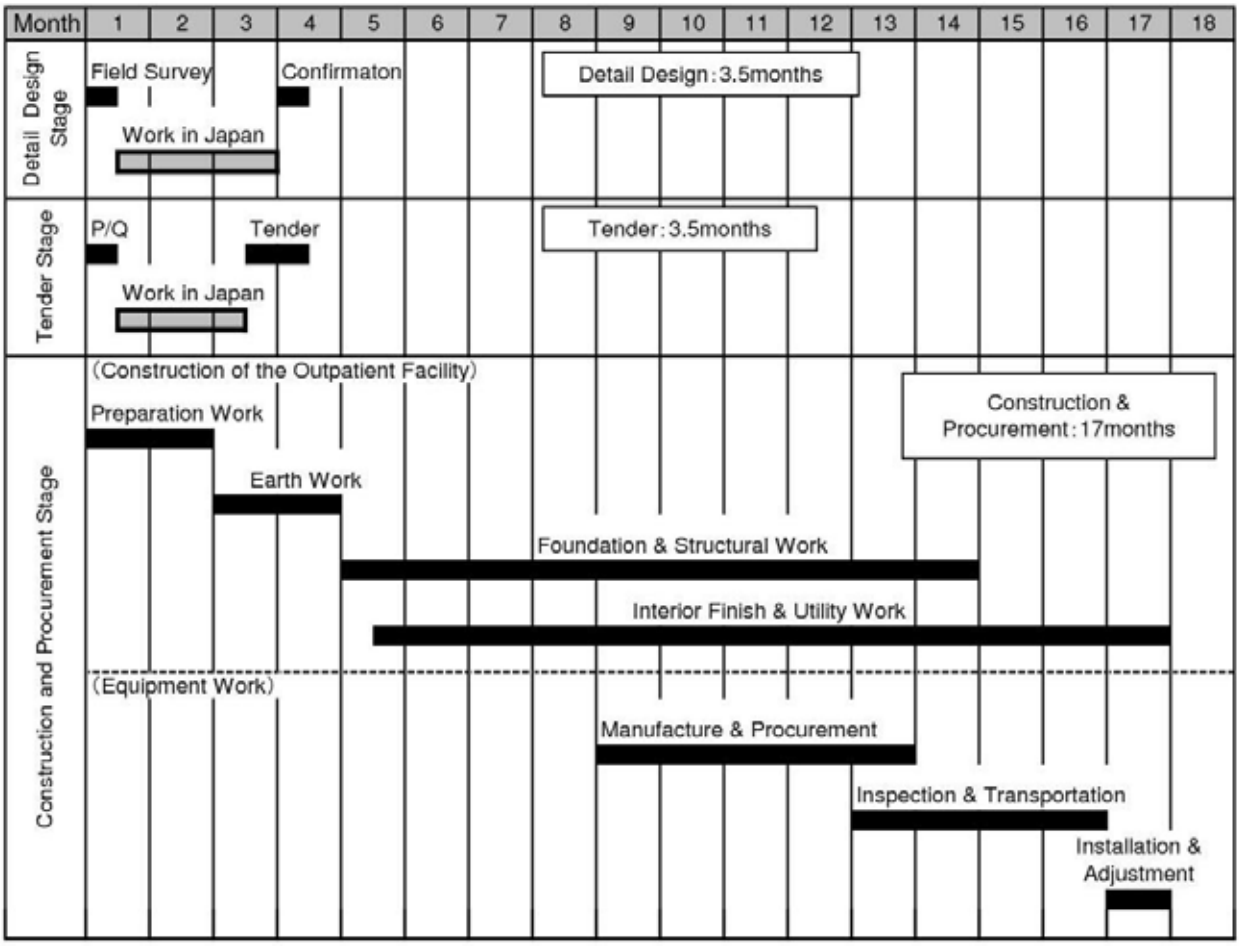
(2) Tender Stage Work

The period to implement the tender stage is estimated to be 3.5 months.

(3) The Contractor work and the Consultant's Supervision Work

After concluding the construction contract, the contractors shall commence the building construction work and equipment work respectively. The Consultant shall commence the construction/equipment supervision work at the same time. Table 2-29 shows the outline of the building construction work of the Project.

The project implementation schedule is as shown in the Figure 2-20.



Source: Preparatory Survey Team

Figure 2-20: Project implementation schedule

Table 2-29: Outline of the proposed facilites

Construction work	Details of the facilities	
The Outpatient Facility	PH floor	Laundry room, Cleaning staff room, In-house power generation room
	7th floor	Training room, OPD pharmacy, Medicine stock room, Medical consumables stock room, Spare goods stock room, General Manager room, Nursing Director room, Outpatient Department Manager room, office room, staff changing room, record archive room
	6th floor	Hepatology / Tropical, Genetic, genetic laboratory room
	5th floor	Cardiology, Post operative cardiac surgery, Catheterization, Cardiomyopathy /Arrhythmia, Rheumatic fever, cardiac ultrasonography room, ECG room
	4th floor	Neuro metabolism / Neuro muscular / Neurology ICU discharged / Neurology NICU discharged, Neurology, neuro metabolism disease laboratory room, EMG room, EEG room
	3rd floor	Allergy / Chest, Immunology / Collagen, X-ray photography room, abdominal ultrasonography room
	2nd floor	Laboratory room, Rehabilitation & Physiotherapy
	1st floor	Entrance hall, parking area, machine room

Source: Preparatory Survey Team

(4) Procurement Supervision

After concluding the facility construction work contract and equipment and material delivery contract, the construction contractor launches the preparation construction work and the supplier launches the equipment and material procurement. At the same time, the consultant starts procurement/ construction supervision. The period for facility construction work and equipment and material procurement / installation work is estimated as approximately 17 months with processes as shown in the Figure 3-20.

2－3 Obligations of Recipient Country

The principle measures and works to be undertaken by the Egyptian side to implement the Project are described below:

(1) Measures and Procedures

i) Application and acquisition of permission and authorization required for the building permission for this project

ii) Issuance of Banking Arrangement (B/A) and Authorization to Pay (A/P) and payment of accompanying charges

iii) Guarantee of immediate landing of imported materials and equipment, tax exemptions and customs clearance and securing of immediate domestic transportation

iv) Extending of necessary facilities to a Japanese / third country person in charge of supply of materials and equipment and execution of work under the authenticated contract for their entry to Egypt, stay and work in the country

v) Full exemption of customs duties and taxes in Egypt for the supply of materials and equipment and the work under the authenticated contract

vi) Budget measures to secure effective operation and maintenance / management of the facilities constructed and equipment and materials procured by the grant aid

vii) Procedures, contract, payment related to the electricity, telephones, gas, water and sewage for this project

(2) Works Related to the Construction Work for Facilities of this Project

All the works to be undertaken by the Egyptian side and their schedule consisting of "before tender," and "upon completion of facility construction" are indicated in Table 2-30. The budgetary actions need to be taken at the proper time.

Table 2-30: Egyptian side Work and Implementation Schedule

Construction work item		Time of completion
01	Securing of the construction site for The Outpatient Facility	Before tender
02	Securing of material storage yard, land for temporary consultant office and land for site office	
03	Installing of Electricity , Waterworks, lines Gas supply and Telephone line to the construction site	
04	Extending and installing of the sewer main piping to the construction site	
05	Acquisition of permission and authorization required for the construction work	
06	Removal of structures (including the foundation) in the site	
07	Reinforcing of the existing adjacent walls around the construction site	
08	Moving of general furniture to the Outpatient Facility	Upon Facility's Completion
09	Installing of curtains and blinds to the Outpatient Facility	
10	Moving and installing of existing equipment, materials, etc.	

Source: Preparatory Survey Team

2－4 Project Operation Plan

(1) Personnel Plan

The Outpatient Facility will be built in the area taking about 3 minutes on foot from CUSPH. New director will take office at the Outpatient Facility and administer it as a branch facility of the CUSPH. For the management section staff, 44 additional staff placement in total is required including a chief and the staff. On the other hand, in the clinical laboratory section, the addition placement of two nurses at the Cardiology for ECG/blood pressure measurement and the addition placement of two doctors at the neurology for neurology ICU discharged and nrurology NICU discharged which will be established newly. patient are required. In addition, 31 additional placements in total are required in the clinical section including the laboratory section. Refer the additional staff placement list as follows.

Table2-31 Additional Staff Placement List

(a) Administaration Department

Department		Section Chief	Staff	The reason for the additional placement
Common	Trainning/Information	1	1	Independent administration is necessary.
Administration	Finance	1	1	
	General		1	
	Personel		1	
Technical	Medical Equipment		1	Independent maintenance and service are necessary.
	Electricity & Communication	1	1	
	Security		16	
	Cleaner		22	
TOTAL			44	

Source: Preparatory Survey Team

(b) Medical Service Section

Clinic Laboratory	Days per week	Doctor			Nurse	Engineer	Clerk	TOTAL	The reason for the additional placement
		Faculty	Trainee	Contract					
Cardiology	6				2			2	For reception and measurement at the cardiology.
Neurology	5								Person in charge of outpatient clinic of the newly established subspecialty.
Neurology ICU discharged	1	1			1			2	
Neurology NICU discharged	1	1			1			2	

EEG, EMG	5				2			2	Operation person in charge of each machine.
Radiation (X-ray)	6	1				2		3	Radiographers in charge of exposure and a radiology doctor to interpret it.
Clinical Laboratory	6	4	3			4	3	14	Perform inspection using the machine of examination of hematology / biochemistry / immunology / bacteriology and make reports.
Rehabilitation & Physiotherapy	6					3		3	Physiotherapists who can perform child rehabilitation. They will conduct physical therapy, exercise therapy, occupational therapy and water therapy.
Medical Material Supplier & Pharmacy	6			2			1	3	Two pharmacists and one person in charge of transporting medicine from the Cairo university Central warehouse.
Total		7	3	2	6	9	4	31	

Source: Preparatory Survey Team

The application procedure is necessary for the Faculty of Medicine of Cairo University to increase the number of staff. The new employment offer is required to have clinical experience and therefore they would be able to operate/use the machines given for diagnosis and treatment activities in the the Outpatient Facility

(2) Operation, Maintenance and Management Plan

1) Facilities operation structure

The maintenance department of the main hospital of CUSPH is controlled under the Engineering Department of Cairo University and it consists of the three sections for electrical system, mechanical system and medical equipment respectively in charge of the maintenance, management and operation of the electrical system, mechanical system and medical equipment of the main hospital of CUSPH. People in charge of medical equipment are currently six people consisting of two biotechnical engineers and four technicians.

Consumption of power, water supply and amount of utilities related to the facilities operation are kept and managed, which indicates that facilities management function is sufficiently working.

2) Maintenance and management budget

i) Heating and electricity expenses

Electricity, water, fuels and other heating and lighting expenses are covered by the budget of Faculty of Medicine of Cairo University and the result of FY 2012 was 519,000 Egyptian pounds (LE) (approximately 72,500 US dollars).

ii) Maintenance and management expenses

Building and system maintenance expenses and medical equipment maintenance expenses are also covered by the budget of Faculty of Medicine of Cairo University and the result of FY 2012 was

2,600,000 Egyptian pound (LE) (approximately 363,000 US dollars).

3) Operation System of medical equipment

6 staffs of the maintenance section in CUSPH are in charge for the medical equipment. Because they can repair only the small medical electronic equipment such as infusion pump, syringe pump and ultrasonic nebulizer, the Faculty of Medicine of Cairo University included CUSPH makes the maintenance contract for the majority of equipment with the local agent of manufacture in the Cairo city.

It is necessary to engage a comprehensive maintenance contract or an annual maintenance contract with the local agent of manufacturer for equipment shown in the following table before warranty/guarantee is expired.

Table 2-32 Equipment required to engaged a maintenance contract

Type	Description	Contract form	Amount of Contract
Image Diagnostic	X-ray unit	Comprehensive maintenance contract	1,800,000 JPY
Image Diagnostic	Echo machine（×3）	Comprehensive maintenance contract	1,680,000 JPY
Clinical Laboratory	Liquid chromatography / Tandem mass spectrometry	Comprehensive maintenance contract	3,800,000 JPY
Clinical Laboratory	5 part automated call counter	Annual maintenance contract	130,000 JPY
Clinical Laboratory	Automated coagulation analyzer	Annual maintenance contract	100,000 JPY
Clinical Laboratory	Automated immunology analyzer	Annual maintenance contract	150,000 JPY
Clinical Laboratory	ELISA Microplate reader & washer	Annual maintenance contract	120,000 JPY
Clinical Laboratory	T.B culture system	Annual maintenance contract	100,000 JPY
Clinical Laboratory	Automated blood culture system	Annual maintenance contract	100,000 JPY
Clinical Laboratory	Automated chemistry analyzer	Annual maintenance contract	300,000 JPY
TOTAL			8,280,000 JPY

(Approx. 577,000EL)

1) Annual maintenance contract：on call maintenance service and periodical check (refer the frequency below)
2) Comprehensive maintenance contract：on call maintenance service including the cycle replacement parts fee and periodical check
3) Only three echo machines, other equipment is counted as one.
4) Exchange rate：1LE=14.35 JPY

4) Operation and Maintenance Plan of Medical Equipment

In order to use the equipment effectively, it is important to keep daily washing and cleaning after use, and to conduct periodical check by the manufacturers or its agents. In addition, appropriate operation according to the operation manual is most important to avoid unexpected usage. Thus, the operational guidance training together with the instructions on how to conduct daily check should be held before handing over of the equipment.

The maintenance expenses of medical equipment are borne by the budget from the Faculty of

Medicine of Cairo University, and the budget in 2012 fiscal year was 1,600,000 LE (22,960,000 JPY).

Table 2-33 Summary of Periodical Check of the Equipment

Type of equipment	Description	Frequency of periodical check
Image Diagnostic Equipment	• X-ray unit • Ultrasound diagnostic apparatus (For Abdominal) • Echo machine	6 months, 1 year 1 year 1 year
Clinical Laboratory Equipment	• Liquid chromatography / Tandem mass spectrometry • 5 parts automated cell counter • Automated coagulation analyzer • Automated immunology analyzer • ELISA Microplate reader & washer • T.B culture system • Automated blood culture system • Automated chemistry analyzer	6 months, 1 year 1 year 1 year 1 year 1 year 1 year 1 year 1 year
Others	• EEG • EMG	1 year 1 year

2－5 Project Cost Estimation

2－5－1 Initial Cost Estimation

(1) Expenses to be Paid by Egypt

Table 2-34 shows the expenses to be paid by the Egypt.

Table 2-34: Expenses to be covered by the Egyptian side

Item	Expenses (US dollars)	Responsible Organization
A: Removal of ground buried objects of the construction site	10,000	CUSPH
B: Expenses for purchasing furniture, fixtures, etc. (including curtains and blinds)	34,500	CUSPH
C: Installing of Electricity , Waterworks, lines Gas supply and Telephone line to the construction site	28,000	CUSPH
D: Extending and installing of the main sewer piping to the construction site	26,000	CUSPH
E: Transfer expenses	5,000	CUSPH
G: Banking Arrangement (B/A) establishment expenses and Authorization to Pay (A/P) issuance charges	15,000	Cairo University
Total	118,500	

(2) Cost Estimation Conditions

i) Time of estimation: June, 2014

ii) Exchange rate: 1 USD = 103.22 yen、1EURO = 142.45 yen

iii) Construction period: The period of detailed design, tenders and building construction/ renovation work and equipment procurement are as shown in the project implementation schedule.

iv) Other: The Project will be implemented in accordance with the Japanese Government's Grant Aid Scheme.

2－5－2 Operation and Maintenance Cost

(1) Energy and other Maintenance and Management Expenses for the Outpatient Facility

The result of trial calculation of the expenses in the Outpatient Facility for energy, elevator maintenance, building and system maintenance, etc. is shown in the Table 2-35 regarding annual estimated expenses of maintenance and management for the fiscal year of establishment and from the second year onward.

Table 2-35: Result of estimation for the maintenance and management expenses

Unit: LE

Item	The first fiscal year of establishment	From the second year onward
i. Electricity expenses	113,580	113,580
ii. Telephone charges	8,568	8,568
iii. Generator fuel expenses	1,872	1,872
iv. Water and sewage charges	3,640	3,640
v. Oxygen gas charges	88,700	88,700
vi. Natural gas charges	11,070	11,070
vii. Elevator maintenance expenses	60,720	60,720
viii. Building and system maintenance expenses	0	135,000
Total of 1 ~ 8	288,150	423,150

Source: Preparatory Survey Team

i. Electricity expenses: 113,580LE / year

The expenses are calculated according to the ratio of the electricity expenses of the main hospital of CUSPH to the area based on the field survey.

- Electricity expenses of the main hospital of CUSPH: 63,100 LE/month (average monthly expenses based on the field survey)
- Ratio of area of the Outpatient Facility: 0.15 (The Outpatient Facility: 2,893.0m^2; the main hospital of CUSPH: 19,550.8m^2)

Table 2-36: Electricity expenses

	For the main hospital of CUSPH (LE / month)	Months	Ratio of area	Expenses (LE)
Electricity expenses	63,100	12	0.15	113,580

ii. Telephone charges: 8,568LE / year

20 lines are used for external telephone in the Outpatient Facility. Telephone charges are calculated by assuming that each telephone line is used three times a day and one minute per time. It is also assumed that international calling is rarely used and domestic calling alone is taken into consideration. The telephone rate system is calculated according to the result of field survey.

- Basic charge: 24LE / number of external lines per month
- Domestic call rate: 0.10LE / time + 0.03LE / minute

Table 2-37: Telephone charges

	Charge (LE)	Number of external lines	Charge (LE)	–	–	Months	Charge (LE)
Basic charge	24	20	480	–	–	12	5,760
	Charge (LE / time)	Number of imes (times / day)	Number of external lines	–	Days	Months	Charge (LE)
Pay-as-you-go rate: domestic call	0.10	3	20	–	30	12	2,160
	Charge (LE/ minute)	Time (minutes / time)	Number of times (times / day)	Number of external lines	Days	Months	Charge (LE)
Pay-as-you-go rate: domestic call	0.03	1	3	20	30	12	648
Total							8,568

iii. Generator fuel expenses 1,872LE / year

New generator system shall be installed in the Outpatient Facility. The capacity is 300kVA and the fuel consumption is approximately 60 litters / hour. In Cairo City, recently, power failure doesn't happen so often. Even if it happens, the period is a few minutes. Fuel expenses are calculated by assuming the operation of 1 hour / time and 1 time / month. The fuel rate system is calculated based on the result of field survey.

- Generator fuel consumption: 60 litters / hour
- Fuel unit price: 2.6LE / litter

Table 2-38: Generator fuel expenses

	Charge (LE)	Amount of use (litters)	Time (hour)	Number of times	Months	Charge (LE)
Fuel charge	2.6	60	1	1	12	1,872

iv. Water and sewage charges: 3,640 LE / year

Amount of water used in the Outpatient Facility shall be as described below. The load ratio is calculated by identifying the operating clinics on each day according to the weekly consultation schedule of each clinic and with the area ratio (excluding the common areas) of the operating clinics.

The unit price of water and sewage charges is based on the result of the main hospital of CUSPH survey.

- Amount of water supplied per day: 19 m^3 / day
- Water and sewage demand charges: 0.7 LE / m^3

Table 2-39: Estimated water and sewage charges

	Unit price (LE / m^3)	Amount of water supplied (m^3 / day)	Days	Load ratio	Charges (LE)
Water and sewage charges	0.7	19	365	0.75	3,640

v. Oxygen gas charges: 88,700 LE / year

Amount of oxygen gases consumed in the Outpatient Facility shall be as shown below. In the same manner as the calculation of water and sewer charges, the load ratio is calculated by identifying the operating clinics on each day according to the weekly consultation schedule of each clinic and with the area ratio (excluding the common areas) of the operating clinics. Also, as the consultation departments do not frequently use the medical gases, the demand ratio is set to 0.3.

The unit price of oxygen gas charges is based on the result of the main hospital of CUSPH survey.

- Amount of oxygen gas used: 1,080 litters / day (installing one oxygen gas outlet for one or two beds in each consultation room)
- Oxygen gas charges: 1 LE / liter

Table2-40: Estimated oxygen gas charges

	Unit price (LE)	Amount of use (litters / day)	Operating days	Load ratio	Demand ratio	Charges (LE)
Oxygen gas charges	1.0	1,080	365	0.75	0.3	88,700

vi. Natural gas charges: 11,070 LE / year

Natural gas shall be used in the Outpatient Facility mainly for Laboratories, laundry facilities, and gas water heaters. The charges are calculated according to the ratio of gas charges of the main hospital of CUSPH to the area based on its survey.

- Natural gas charges for the main hospital of CUSPH: 6,150 LE / month (Average monthly use charges based on the main hospital of CUSPH survey)
- Ratio of the area of the Outpatient Facility: 0.15 (The Outpatient Facility: 2,893.0m^2; CUSPH: 19,550.8m^2)

Table 2-41 Estimated natural gas charges

	Charges for the CUSPH (LE / month)	Months	Area ratio	Charges (LE)
Natural gas charges	6,150	12	0.15	11,070

vii. Elevator maintenance expenses: 60,720 LE / year

By reference to the result of interview with a local elevator management company in the field survey, the amount of annual elevator maintenance and management contract expenses for the Outpatient Facility is set to 60,720 LE / year.

viii. Building and system maintenance expenses: 135,000 LE / year

The amount of building and system maintenance expenses is calculated by the area ratio for the building and system maintenance expenses of the CUSPH. Note that these expenses are necessary in the second year onward.

- Building maintenance expenses for the CUSPH: 900,000 LE / year (based on the field survey)
- Ratio of the area of outpatient facilities: 0.15 (Outpatient facilities: 2,893.0m^2; CUSPH: 19,550.8m^2)

Table 2-42: Estimated building and system maintenance expenses

	Building maintenance expenses for the CUSPH (LE / year)	Area ratio	Expenses (LE)
Building maintenance expenses	900,000	0.15	135,000

(2) Maintenance cost exclude utility at the Outpatient Facility

The following table shows the maintenance cost examined in the previous section, such as medicine and reagent etc, and it excludes utility cost.

Table2-43 Record in 2013 and Expected CUSPH Budget (in thousand LE)

Item	CUSPH budget in 2013	CUSPH outpatient clinic activities in 2013*	After completion of the Project The Outpatient Facility**
1. Medicine	3,000	1,160.10	912.30
2. Reagent/Chemical	2,000	773.40	608.20
3. Consumables/Parts	220	85.07	66.90
4. Outsourcing	1,944	751.74	591.17
5. Office supplies	100	38.67	30.41
TOTAL	**7,264**	**2,808.98**	**2,208.98**

*The budget of "CUSPH outpatient clinic activity in 2013" is calculated by the ratio of outpatients 38.67% (89,453/231,268*100=38.67) of the total number of CUSPH patients (231,268 people in total: Outpatient 89,453, Emergency 42,333, and Inpatient 99,482).

** The budget of "After completion of this project Outpatient Facility" is calculated by the ratio 78.64% (74,850/95,171*100=78.64) of the number of expected outpatients at the targeted department (74,850) of the number of outpatients after completion of this project including the, number of increased patients at the transferred department (95,172: the number of estimated patients at the transferred department 74,850 + the number of outpatients expect the transferred department 20,322) of the budget of "CUSPH outpatient clinic activity in 2013".

(3) Medical / Training Equipment maintenance cost

In calculating the increase of maintenance cost of the equipment provided in the project, the maintenance cost is not included when the equipment already being hold at CUSPH is renewed.

With improvement of the outpatient medical service and facility construction in this project, operation / maintenance cost for the new equipment or for the increase of number of existing equipment is calculated, and its result shows in the following table 2-44

Table2-44 Annual Maintenance cost of Medical Equipment (per one unit)

No.	Description	JPY	Detail of necessary goods
4	Film illuminator	12,000	Fluorescent
11	Spirometry	100,000	Anti-bacterial filter etc
15	Image printer	50,000	Dry film (3 types)
16	Ultrasound diagnostic apparatus (For Abdominal)	300,000	Gel, recording paper
18	Medical refrigerator L	10,000	Temperature recording paper
20	Muscle stimulator	5,760	Alkaline battery
21	Ultra sound therapy unit	30,000	Gel
44	Umbilical catheter simulator	30,000	Umbilical cord
47	CPR simulator	10,000	Airway, junior mannequin face
50	Wall mount projector	30,000	UHE lamp
54	Automated cell counter	80,000	Reagent, recording paper
55	Coagulation analyzer	100,000	Reagent, calibrator
56	Research quality microscope	6,000	Oil
58	Centrifuge	80,000	Rotor, glass tube etc
59	Two door reagent Refrigerator with rock	7,800	Recording paper
60	Refrigerator with freezer and lock	7,800	Recording paper
61	Automated immunology analyzer	180,000	Standard Reagent kit
62	Fluorescent microscope	18,600	Oil
64	T.B culture system	100,000	T.B culture bottle, Recording paper etc
65	Automated blood culture system	150,000	Blood culture bottle（For aerobil・anaerobil・pediatric）

69	Automated chemistry analyzer	180,000	Reagent set, recording paper
70	Automated electrolyte analyzer	80,000	Calibrator, recording paper, solution pack
71	High signal averaging ECG	30,000	Recording paper, gel, electrode etc
73	Non-invasive monitor	48,000	Electrode etc
74/75	Echo machine	80,000	Gel, Recording paper
76	ECG	30,000	Recording paper, paste, electrode
	Sub Total	1,755,960	

(Approx. 122,370LE)

Source: Preparatory Survey Team
Note: Above annual maintenance cost is not included the maintenance contract fee with local agent.
Conversion Rate: 1LE=14.35 JPY

(4) Verification of the Income from user charge and operation / maintenance

- Study of the increase of the income from user charge

The number of annual expected patients is anticipated 8% increase of the actual value in 2013 after opening the Outpatient Facility. In addition, the number of annual patients is expected to increase, because equipment will be updated and procured in the project. About the tendency of increase the number of each patient, the figure with its reason is mentioned below and chapter 3. The planned number of urinary examination was estimated by the grand total number of planned patients at the Outapatient Facility, because the examination is to be conducted to all outpatients as a routine investigation. The others is estimated by the total number of outpatients who is required each examination at each clinic.

As shown below, the income from user charge is expected to increase about 1.2 times from current amount if the Outpatient Facility opens after handling-over. These examination functions are not to be left at the main hospital of CUSPH, then they will be a service that only the Outpatient Facility can offer.

Table2-45 Income from user charge (LE)

Examination item	Unit price	Number of patients in 2013	Income from user charge in 2013	Planned number of patients	Planned income from user charge
Echo	65	17,445	759,730	20,300	884,065
EEG	60	377	15,155	2,000	80,400
Ultrasound diagnosis apparatus (For Abdominal)	45	356	10,733	945	28,492
X-ray unit	20	5,061	67,817	8,950	119,930
Tandem mass spectrometry (25 items)	240	276	44,380	655	105,324
Blood Examination	16	1,182	12,671	1,300	13,936

Urinary Examination	5	19	64	20	67
Bacteria Examination	100	350	23,450	380	25,460
Immunology Examination	150	364	36,582	396	39,798
Chemistry Examination	60	49,202	1,977,920	57,566	2,314,153
TOTAL			**2,948,502**		**3,611,625**
Increase by user charge					**663,123**

Source：CUSPH Note：Conversion Rate：1LE=14.35 JPY

※Income from user charge collected by each department is distributed to 67% for income of each department of CUSPH and 33% for Cairo University. “Income from user charge” in the table shows 67% of CUSPH income for each department.

※The average payment of per patient is used as unit price, because the payment of a patient fluctuates depending on the examination item such as blood examination or chemistry examination.

※The above t is moved a decimal point forward.

※The way of calculation of the number of patients of echo, EEG, X-ray unit, blood examination and chemistry examination is explained in chapter 3.

※The way of calculation of the number of patients of ultrasound diagnosis apparatus (for abdominal), tandem mass spectrometry, urinary examination, bacteria examination and immunology examination is below.

・ Ultrasound diagnosis apparatus (For Abdominal)：
The transferred clinics which require the ultrasound diagnosis for abdominal are Tropical and Hepatology. The Tropical examines 54 patients per week (18 people a day/ 3 days a week) and 2,700 patients per year (54 people *50 weeks/year). According to the interview for a doctor in during the preparatory survey, 270 people which are about 10 % of new patients need the examination. The Hepatology examines 45 patients per day 3 consultation days in a week, 135 patients per week and 6,750 patients per year. 675 people which are 10 % of new patients need the examination. In conclusion, 945 patients at the Tropical and the Hepatology need the examination.

・ Tandem mass spectrometry：
Neuro metabolism examines 44 patients per week and 2,200 patients per year (44 people ×50 weeks). According to the interview for a doctor in the field survey, 220 people which are about 10 % of new patients need the examination. And there are patients who need the examination at Genetic, the number of patients at the Genetic is 174 patients per week (29 people×(29 people a8,700 patients (174 people × 50 weeks). 435 people which are 5 % of new patients need the examination. In conclusion, 655 patients at the Neuro metabolism and the Genetic need the examination.

・ Urinary Examination：
After completion of this project, the number of examination is estimated 8 % increase, because the patients at the transferred clinic will increase 8 % in comparison with the actual value in 2013.

・ Bacteria Examination：
The ratio of patients who need the examination compared with the number of planned patients at the transferred clinic.
→The ratio of patients who performed the examination compared with the actual number of patients(about 69,000 people) at the transferred clinic in 2013: one in 197 people. (69,000 people ÷ 350 examinations ＝about 197)
→In case one in 197 people are examined for the planned patients (about 75,000 people) after completion of this project, 380 people are targeted for the examination. (75,000 people ÷ 197 ＝ about 380)

・Immunology Examination：
The ratio of patients who need the examination compared with the number of planned patients at the transferred clinic.
→The ratio of patients who performed the examination compared with the actual number of patients(about 69,000 people) at the transferred clinic in 2013: one in 189 people. (69,000people ÷ 364 examinations ＝ about 189)
→In case one in 189 people are examined for the planned patients (about 75,000 people) after completion of this project, 396 people are targeted for the examination. (75,000 people÷189＝about 396)

As mentioned above, the income from user charge after completion of the project is estimated 3,611,625LE (about 51,800,000 JPY) which is about 1.2 times increase in comparison with the actual value in 2013. Therefore, the fund for maintenance of the planned equipment is secured. Each hospital managed by Cairo University does not have to budget the annual maintenance fee, because the equipment is engaged a maintenance contract under the Cairo University.

- Review on the increase in the operation, maintenance and management expenses

  The annual increase in the operation, maintenance and management expenses due to establishment

of the new Outpatient Facilities is estimated to approximately 1,122,520 LE (approximately 16.11million yen) (facilities maintenance and supervision expenses of 423,150LE in the Table 2-36 + annual maintenance and management expenses for medical equipment and materials of 122,370LE in the Table 2-45+ Equipment required to engaged a maintenance contract of 577,000LE in the Table 2-32).

The annual increase in the medical service income due to implementation of this project is approximately 663,123 LE (approximately 9.5 million yen in the Table 2-45). It has been confirmed in the field survey that operation and maintenance costs of the Outpatient Facility (2668377LE Table 2-46), were subtracted increased amount of medical service income (663123LE),will be covered by the budget measures by Cairo University and CUSPH. This 2,668,377LE is 0.4% as a percentage of 2012 fiscal year budget 600 million LE of Fauclty of Medicine, Cairo University, is sufficiently possible burden.

The budget measures to be taken by the CUSPH for the maintenance and management expenses due to implementation of this project are as shown in the Table 2-46.

Table 2-46: Review on the income from user charge,
operation, maintenance and management expenses due to implementation of this project (Unit: LE)

Increase in the income from the result in 2013 (Income from user charge)	Amount	Remarks
Income from user charge	663,123	Refer to the Table 2-46.
Total	663,123	
Operation, maintenance and management expenses	**Amount**	**Remarks**
1) Drugs and medicines	912,300	Refer to the Table 2-44.
2) Reagents / Chemicals	608,200	Refer to the Table 2-44.
3) Medical consumables / Parts	66,900	Refer to the Table 2-44.
4) Outsourcing to the private sector	591,170	Refer to the Table 2-44.
5) Office supplies	30,410	Refer to the Table 2-44.
6) Outpatient facilities		
- Electricity expenses	113,580	Refer to the Table 2-37.
- Telephone charges	8,568	Refer to the Table 2-38.
- Generator fuel expenses	1,872	Refer to the Table 2-39.
- Water and sewage charges	3,640	Refer to the Table 2-40.
- Oxygen gas charges	88,700	Refer to the Table 2-41.

- Natural gas charges	11,070	Refer to the Table 2-42.
- Elevator maintenance expenses	60,720	Refer to 2-5-2 (1) vii.
- Building and system maintenance expenses	135,000	Refer to the Table 2-43.
Subtotal of 6)	423,150	
7) Operation, maintenance and management expenses for the medical equipment and materials		
- Maintenance and management expenses for the new equipment and materials	122,370	Refer to the Table 2-45.
- Expenses of maintenance and management requiring contract with a local agent of manufacure	577,000	Refer to the Table 2-32.
Subtotal of 7)	699,370	
- Total of 1) ~ 7) above	3,331,500	
- Subtracted increased amount of medical service income from (A)	2,668,377	

Source: Preparatory Survey Team

Chapter 3: Project Evaluation

Chapter 3 Project Evaluation

3－1 Preconditions

In order to promote the project smoothly, it is important that necessary inputs by Egyptian side which was mentioned in 2-3 of Chapter 2 need to be conducted at the appropriate time.

3－2 Necessary Inputs by Recipient Country

CUSPH has contributed to improve of pediatric health services in Egypt by providing the clinical service and educational function as a tertiary level pediatric top referral hospital since 1982. During the past 30 years, CUSPH was supported by the Japanese grant aid and technical cooperation.

For improvement of pediatric health services and reinforcement of educational function by implementation this project, Egyptian side needs to conduct the issues mentioned below.

(1) Human Resources and budget for the Outpatient Facility

It will be required additional 44 general staffs (including 22 cleaning staffs and 16 security staffs) and 31 medical staffs for implementation the project. Additional staffs and budget for the Outpatient Facility needs to be secured by the Faculty of Medicine of Cairo University. To use effectively the Outpatient Facility and planned equipment, it is important to obtain the approval of the arrangement of additional staff and budget before inauguration of the Outpatient Facility. This is the priority matter for Egyptian side, and cooperation between CUSPH and the Faculty of Medicine of Cairo University is indispensable.

(2) Maintenance Contract for the Medical Equipment

It is required to engage maintenance contract for image diagnostics equipment and laboratory equipment to be procured in the project.

Either the comprehensive maintenance contract or the annual maintenance contract should be engaged with local agents depending on the characteristic of equipment such as frequency of defects and necessary replacement parts in order to minimize downtime of the equipment.

(3) Appropriate Equipment Maintenance

The equipment, which is not engaged a maintenance contract, required to conduct daily and periodic check by the hospital maintenance engineers or outside engineers belonging to local agents based on the requirements of the equipment operational manual.

3－3 Important Assumptions

In order to realize and maintain the effect of the project, the following assumptions need to be fulfilled.

(1) HSRP will be promoted by the Egyptian Government

To improve of impartiality, efficiency and quality of health service, HSRP was formulated by the Ministry of Health and population in 1997. However, the program implementation has suspended due to the instability of a political situation since 2011. The new administration, which was organized 2014, intends to resume several reform programs including HSRP. At this junction, the number of insured person of the national health insurance should be increased.

In addition, it is necessary to establish the system which all pediatrics including the poor can receive proper treatment at CUSPH as the tertiary level pediatric top referral hospital in Egypt.

(2) Egyptian Political Situation will keep without significantly deteriorated

As the result of the large-scale anti-government movement in 2011, it occurred the confrontation and collisions between interim government and military, anti-interim government, also it occurred terrorist activities. Therefore the economy has been sluggish. However, the new President took office in 2014,the confusion that has been followed since 2011 have been thought to have ended. In the future, it is necessary that the current political situations are not significantly deteriorated.

3－4 Project Evaluation

3－4－1 Relevance

The effects expected by implementation of this project are as following. It is judged that it is relevant to implement this project by grant aid of the Government of Japan.

(1) Beneficiaries and targets of this project

CUSPH plays a core role as a facility which provides tertiary medical services in the area of pediatric medical care and as an educational facility which provides education for medical workers in Egypt. The beneficiaries of its medical services are, indirectly, the whole population of Egypt, 83.66 million people (in 2013), and directly, approx. 90 thousand outpatients per year (in 2013) who visit the Outpatient Depertment. The beneficiaries of education for medical workers are interns and nurses who receive training at the Outpatient Facility.

The targets of this project are improvement of medical care services for outpatients and enhancement of education functions of CUSPH through construction of the Outpatient Facility and provision of related equipment at the Facility.

Currently, a variety of special medical care departments of CUSPH provide tertiary medical services to any little children including those from poor classes. Even after implementation of this project, the services will continuously be provided to poor classes.

In addition, not only by dispersion of the concentrated number of patients and improvement of medical care/diagnosis functions, but also by improvement of outpatient medical care services and improvement of quality of medical workers through reinforcement of education functions with a view to accepting

trainees also from outside of CUSPH, it is expected that the effects of implementation of this project contribute to enrichment of pediatric medical care services in Egypt mainly around the metropolitan area of Cairo.

Thus, since this project contributes to improvement of health and welfare of the people of the country including poor classes and improvement of medical care services of the country, it is judged that its relevance is high.

(2) Consistency with the health sector policy of Egypt

"Health sector reform plan" settled on by the Ministry of Health and Population of Egypt says that the target is improvement of fairness, efficiency and quality in provision of health and medical care services, and expresses to tackle 6 main tasks: (1) development of health and medical care institutes, (2) development of health sector infrastructure, (3) human resource training, (4) health and medical care service reform, (5) reform of financial resources for health and medical care and (6) reform of the pharmaceutical sector. This project is highly related to "(3) human resource training" and "(4) health and medical care service reform" among them, and it is expected to contribute to achievement of targets of "Health sector reform plan".

(3) Consistency with the assistance policy of the Government of Japan

The Government of Japan determined on a development task "Expansion and improvement of public services" in the priority area of assistance for Egypt, "Reduction of poverty and improvement of quality of life", in its “The Country Assistance Policy to Egypt (June 2008)”. Then, the Government of Japan has implemented cooperation mainly by development of various life infrastructures in local areas such as improvement of health and medical care services, improvement of basic education, construction of plumbing, etc. for the purpose of improvement of living standards of poor classes. Expansion and improvement of public services are still selected as prioritized items of cooperation policy from now.

This project is highly consistent with Japanese assistance policy, as the prioritized areas of assistance and the development tasks of this project suit “The Country Assistance Policy to Egypt”.

3－4－2 Effectiveness

The output and effects expected from implementation of this project are as below. Quantitative and qualitative indicators are proposed as the outcome indicators for measuring the degree of achievement of the target; the year of 2013 is considered as the reference year, and the year of 2020, which is approx. 3 years after the service of this project starts (the year of 2017), as the target year.

(1) Quantitative effects

The quantitative effects expected from implementation of this project are dispersion of the concentrated number of patients, improvement of medical care/diagnosis functions and reinforcement of education functions. The outcome indicators of each are as per listed in Table 3-1.

Table 3-1 Quantitative effects of this project

Quantitative effects	Outcome indicator
Dispersion of the concentrated number of patients	The number of outpatients per area (people/ m^2) (the main hospital of CUSPH = approx. 1,000 m^2, The Outpatient Facility = approx. 1,689 m^2)
Improvement of medical care and diagnosis functions	Increase in the number of samples examined (Example: general radiography, ultrasound scanning, biochemistry, hematology, electroencephalograph, etc.)
Reinforcement of education functions	The number of trainings implemented at the Outpatient Facility

1) Dispersion of the concentrated number of patients

The area of the existing outpatient departments of the main hospital of CUSPH (the total of surgical medical care departments and interenal medical care departments) is approx. 1,000 m^2. The total floor area of the Outpatient Facility where the internal medical care departments will be transferred will be approx. 3,100 m^2, and the floor area of 3rd to 6th floors where diagnosis and otupatient consultation rooms are located is approx. 1,689 m^2. The surgical medical care which will not be transferred will be located in the main hospital of CUSPH by renovating existing outpatient departments. Therefore, the effect of dispersion of concentrated patients can be checked using the number of outpatients per area before and after transfer as an outcome indicator.

2) Improvement of the medical examination and treatment function

Regarding the effect confirmation of the improvement of the medical examination and treatment function, the number of examination patients are considered as a result indicator. In particular, it is the examination with using the allocated machines at the Outpatient Facility such as X-ray, echo machine, fully automated chemistry analyzer, automatic cell counter and EEG. The targeted value (after three years from handover) was calculated the actual value of the of outpatients' examination number in 2013.

The expected base value and target value are shown in table 3-2.

Table3-2 The base value and target value

for the improvement of the medical examination and treatment function

Index	Charge-free Outpatient care, 2013	Charged Outpatient care ,2013	Base Value	Target Value (2020)
X-ray	5,061		5,061	8,950
Echo（3 machines）	17,445		17,445	20,300
Biochemistry examination	196,037	49,202	189,521	221,740
Hematology examination	21,042	1,182	17,175	18,890
EEG	377		377	2,000

The target figures of quantitative indicators are settled according to the following assumptions:

- X-ray examination:

  The actual value of the X-ray examination for the internal medicine department outpatients in 2013 including the chest and the abdomen is 5,061 cases.

  About 102 examinations are carried out in a week in calculating this figure as 50 weeks in one year.

  As for needing X-ray photography in internal medicine department, there is much demand for photography of abdomen and chest mainly in Hepatology clinic, Tropical clinic, Chest clinic and Allergic clinic. The Hepatology clinic (45 patients/day) and the Allergic clinic (40 patients/day) take medical activities three days on Saturday, Monday and Wednesday, and the Chest clinic (22 patients/day) and the Tropical clinic (18 patients/day) take medical activities three days on Sunday, Tuesday and Thursday, which means 4 medical examination and treatment clinics take medical activities on six days a week in total.

  Among these patients, it is anticipated that a patient suspected with asthma, pneumonia or tuberculosis in Allergic clinic and Chest clinic and a metabolism liver disease and chronicity liver disease patient in the Hepatitis clinic are high necessity of the chest or the abdomen X-ray photography, but according to the actual examination result 102 cases, these 4 each clinics are able to take only about 5 X-ray photography in a day.

  129 X-ray examination per week will be necessary in the above main 4 clinics assuming that the number of outpatients will stay flat in future (14-29 cases a day：among 85 people a day of Hepatology clinic and Allergic clinic in total and 40 people a day of Tropical clinic and Chest clinic in total, about one-third of the new patients suspected above diseases need the chest or abdomen X-ray photography examinations. 14cases *3days+29cases *3days=129cases a week). In 10 other clinics of the transferred clinics, around 50 cases of X-ray examination are estimated to be needed in a week (average five cases in each clinic), outpatient X-ray examinations are necessary approximately 179 cases a week (129 cases + 50 cases), which means 8,950 cases in a year in total. Compared to as of 2013, around 1.8 times of patients will be able to have a checkup by X-ray examination, and the examination waiting time for the patients will be shortened by dispersion with the surgery clinic remaining in CUSPH.

- Echo:

  Three echo machines are planned to be supplied. Two of them belong to echo laboratory, and the last one belongs to 4 outpatient medical examination and treatment departments which are Arrhythmia, Cardiomyopathy, Post operative cardio surgery and Catheterization. Currently there are three echo machines in the echo laboratory of the CUSPH, and all of them will be left to the CUSPH for inpatients. In the echo laboratory, 24 cases a day, around 7,200 cases a year (7,200= 3 people per hour * 8 hours * 300 days) examinations are taken, and its ratio is 19.3% for inpatients and 80.7% for outpatients.

  All outpatients examine in the echo laboratory are patients for the Cardiology. Because there are many patients who must have a checkup by an echo machine regularly among the Cardiology clinic patients,

now the reservations are full until half a year ahead.

The patient who must have a checkup by an echo machine regularly and a newly outpatient at the Cardiology clinic will receive a benefit from two echo machines which are planned to be procured for the echo laboratory in the the Outpatient Facility. The echo examination needs a time about 20 minutes for one case including its record. If calculate the number of examinations from one hour for three cases and the duty time (start from 8:00 to 17:00 and one hour lunch time in total eight hours, closed on Friday), it is 24 cases a day, 144 cases a week, 7,200 cases a year. 14,400 examinations in total are able to be taken in two machines. On the other hand, the one echo machine procured for 4 outpatient clinics will be used at Catheterization (Consultation day：Sunday, 38 patients a day), Post operative cardio surgery (Consultation day：Wednesday, 30 patients a day), Cardiomyopathy (Consultation day：Monday, 22 patients a day), Arrhythmia (Consultation day：Wednesday, 28 patients a day), and these patients take the echo examination regardless of new case or old case. Therefore, the number of echo examination at these 4 outpatient clinics is 118 cases (38+30+22+28=118) a week, and 5,900 cases a year (118 cases x50 weeks).

As above, the number of the planned annual examination by three echo machines in this project will be 20,300 cases that added up two machines for the echo laboratory (14,400 cases) and one for outpatient medical examination and treatment (5,900 cases). This figure shows about 16% increase from 17,445 cases of actual values of echo examination carried out for outpatients at internal medicine department in 2013.

- Biochemistry examination:

245,239 examinations were carried out in 2013 actual value. The ratio of the number of patients at the transferred clinics is 77.28% (the number of outpatients at the support medical examination and treatment department is 69,131) from the total number of outpatients at CUSPH, 89,453 (actual value in 2013). This ratio applies that the transferred clinics conduct 189,521 (245,239*77.28%=189,521) examinations for their outpatients.

It could be calculated that about 3,791 cases of examination a week (189,521 cases / 50 weeks) and about 632 cases of examination a day (3,791 cases / 6 days) are carried out.

The number of outpatients at CUSPH has a trend of decrease until 2013, on the other hand the number of the biochemistry examination of outpatient increased 1.17 times in 2013 from 2012. As the increase of a severely ill patient needing much examination contents and the increase of examination capacity by the new machine introduction, the increase of patients from 2013 to 2020 is anticipated by 1.17 times as same standard as at least. As a result, the number of the biochemistry examination of patient in 2020 is 221,740 cases (4,435/ week, 740/ day) which is 1.17 times increase from 189,521 cases of actual value in 2013.

- Hemotology examination：

The actual value of the examination in 2013 is 22,224 cases. The ratio of the number of patients at the targeted clinic is 77.28% (the number of outpatients at transferred clinics is 69,131) from the total

number of outpatients at CUSPH, 89,453 (actual value in 2013). This ratio applies that the transferred clinic conducts 17,175 examinations for their outpatients. It could be calculated that about 344 cases of examination a week (17,175 cases / 50 weeks) and about 58 cases of examination a day (344 cases / 6 days) are carried out.

The planned number of patients after transfer is 74,850 (rehabilitation is excluded), and this is 8% increase from 69,131 patients at the targeted clinic in 2013. In other words, if the number of examination patients increase 10% from actual value 17,175 cases in 2013, the number of examination patients in 2020 would be 18,890 cases (378/week, 63/day).

- EEG examination:

The EEG in the CUSPH is in trouble to use continuously because of deterioration, and it is the impossible situation to meet the number of the necessary patients' examination. If the operation system is run by two EEGs, which are the planned new machine in this project and the one transferred from Monira Hospital, 8 cases a day (4 patients (it is expected that it takes an hour for a patient, and 4 patients can be examined in outpatient consultation hour)* 2 machines) will be able to be taken an examination. 2,000 cases of examination a year is estimated in calculating 5 days a week of consultation day and 50 weeks a year.

3) Reinforcement of the education function

The training or clinical conference that is held dispersedly at Cairo university, CUSPH and Monira Hospital at the moment will be performed in the training room of the the Outpatient Facility, hence the number of training will be increased. Training course, frequency and number of times per year in the Outpatient Facility are shown in the following table. 233 times of training in total are planned to be held.

Table3-3 Training plan at the Outpatient Facility

CLINIC	COURSE	FREQUENCY	TIMES／YEAR	NO. OF PARTICIPANTS／TIME	NO. OF PARTICIPANTS／YEAR	TRAINEES
Cardiology clinic including Cardiomyopathy, Arrhythmia and Rheumatic fever	Meeting	Weekly	50	36	1,800	Visitors Resident doctors (From CUSPH and out of CUSPH)
		Monthly	12	36	432	
		Quarterly	4	36	144	
		Once in a half year	2	36	72	
		Yearly	1	36	36	
	Clinic conference with cardiac surgery team for difficult cases	Monthly	12	36	432	
	Mortality case study meeting	Monthly	12	36	432	

CLINIC	COURSE	FREQUENCY	TIMES／YEAR	NO. OF PARTICIPANTS／TIME	NO. OF PARTICIPANTS／YEAR	TRAINEES
Emergency	Pediatric emergency workshop	Once in a half year	2	36	72	
	Mechanical ventilation course	4 times a year	4	36	144	
Allergy	Case presentation	Monthly	12	7	84	
Chest		Monthly	12	17	204	
Collagen		Monthly	12	14	168	
Tropical		Monthly	12	11	132	
Genetics		Monthly	12	14	168	
Immunology		Weekly	50	5	250	
Neurology		Monthly	12	9	108	
Hepatology		Monthly	12	8	96	
TOTAL			233		4,774	

Resource： Preparatory Survey Team

(2) Qualitative Effects

Following may be used as qualitative indicators of improvement of functions of the Outpatient Facility by implementation of this project.

1) Improvement of patient satisfaction

Shortening of the line of flow of outpatients and reduction of waiting time will reduce burden on patients and their family, and patient satisfaction will improve.

2) Improvement of motivation of health care workers

Since new facility and equipment will be provided, motivation of health care workers working at this hospital will improve.

3) Improvement of educational environment and satisfaction

Since the space for instructing medical residents and researchers is secured, and the line of flow is improved, the educational environment for OJT during medical care activities and conferences within the hospital will improve, and satisfaction with the educational environment will improve.

4) Improvement of capability of medical staff

Since training will be held constantly and effectively at new training room, capability of medical staff will improve.

Based on above, it is judged relevance of this project is high, and effectiveness is expected.

Appendices

Appendices

1. Member list of the study team

(1) During the Preparatory survey 1 (April 28 - May 16, 2014)

NAME	ROLE	INSTITUTION
Mr.Yoshiharu Yoneyama	Leader	Deputy Director General, and Group Director for Health1, Human Development Department
Dr.Azusa Iwamoto	Technical Advisor	National Center for Global Health and Medicine Bureau of International Medical Cooperation 2nd Expert Service Division
Mr.Keichi Osato	Cooperation Planning	Deputy Director Health Division I Health Group I, Human Development Department
Mr.Kazuyuki Otsubo	Project Manager & Architectural Planner	NIHON SEKKEI, INC.
Mr.Shingo Honda	Co- Project Manager & Architectural Design	NIHON SEKKEI, INC.
Mr.Kazumi Akita	Hospital Management Planning	BINKO INTERNATIONAL LIMITED
Mr.Ehab Elwageeh	Construction Design II/ (additional member)	NIHON SEKKEI, INC.

(2) During the preparatory survey 2 (June 7 - June 28, 2014)

NAME	ROLE	INSTITUTION
Mr.Shiro Nakasone	Leader	Senior Reppresentative/JICA Cairo Office
Dr.Azusa Iwamoto	Technical Advisor	National Center for Global Health and Medicine Bureau of International Medical Cooperation 2nd Expert Service Division
Ms.Minako Kuramitsu	Cooperation Planning	Health Division I Health Group I, Human Development Department
Mr.Kazuyuki Otsubo	Project Manager & Architectural Planner	NIHON SEKKEI, INC.
Mr.Shingo Honda	Co- Project Manager & Architectural Design	NIHON SEKKEI, INC.
Ms.Yasuko Asanuma	Equipment Planner	BINKO INTERNATIONAL LIMITED
Mr.Shigeki Hario	Facilities Planner	NIHON SEKKEI, INC.
Ms.Michiko Yamada	Procurement & Cost Planner	BINKO INTERNATIONAL LIMITED
Mr.Dan Watanabe	Construction & Cost Planner	NIHON SEKKEI, INC.
Mr.Ehab Elwageeh	Architectural Design II/ (additional member)	NIHON SEKKEI, INC.
Mr.Ryosuke Togashi	Equipment Planner II/ (additional member)	BINKO INTERNATIONAL LIMITED

(3) Explanation of Draft Report (November 29 - December 5, 2014)

NAME	ROLE	INSTITUTION
Mr.Shiro Nakasone	Leader	Senior Reppresentative/JICA Cairo Office
Ms.Minako Kuramitsu	Cooperation Planning	Health Division I Health Group I, Human Development Department
Mr.Kazuyuki Otsubo	Project Manager & Architectural Planner	NIHON SEKKEI, INC.
Mr.Shingo Honda	Co- Project Manager & Architectural Design	NIHON SEKKEI, INC.
Ms.Yasuko Asanuma	Equipment Planner	BINKO INTERNATIONAL LIMITED
Mr.Ehab Elwageeh	Architectural Design II/ (additional member)	NIHON SEKKEI, INC.
Mr.Ryosuke Togashi	Equipment Planner II/ (additional member)	BINKO INTERNATIONAL LIMITED

2. Survey Schedule

(1) During the preparatory survey 1 (April 28 - May 16, 2014)

	Members		JICA			Consultants			
			Leader	Technical Advisor	Cooperation Planning	Project Manager/ Architectural Planner	Co-Project Manager/ Architectural Planner	Hospital Management Planning	Architectural Planner2/ (additional member added by Nihon Sekkei)
			Yoshiharu Yamayama	Azusa Iwamoto	Keiichi Osato	Kazuyuki Otsubo	Shingo Honda	Kazumi Akita	Ehab Elwageeh
1	April 28th	Mon					Narita→		＊Same as Co-PM
2	April 29th	Tue					Dubai→Cairo		＊Same as Co-PM
3	April 30th	Wed					＊Confirmation of Construction Permits Sayed Zeinab 10:00～ (confirmed)		＊Same as Co-PM
4	May 1st	Thu					＊Visit CUSPH		＊Same as Co-PM
5	May 2nd	Fri					＊Visit CUSPH		＊Same as Co-PM
6	May 3rd	Sat				Narita→	＊Facility Planning	＊Same as Project Manager	＊Same as Co-PM
7	May 4th	Sun				Dubai→Cairo 10:40	＊Confirmation of Construction Permits	＊Same as Project Manager	＊Same as Co-PM
8	May 5th	Mon				＊Courtesy Call to JICA, Distribution Questionnaire for Local Consultant ＊Round Table Meeting at Cairo Univ. P.M ＊Cairo Univ.・Inception Report Explanation and Distribution, Questionnaire Explanation and Distribution ＊Ministry of Higher Education・Inception Report Explanation and Distribution, Questionnaire Explanation and Distribution ＊CUSPH・Explanation and Distribution, Questionnaire Explanation and Distribution			
9	May 6th	Tue				＊Confirmation of Contents of Request ＠CUSPH, Surveying Site			
						＊Confirmation of Contents of Request ＠CUSPH, Surveying Outpatient dep. of CUSPH			
				Narita→		＊Confirmation of Contents of Request ＠CUSPH			
10	May 7th	Wed		Dubai→Cairo		＊Confirmation of Contents of Request ＠CUSPH, Investigation of El Mounira Hosp.			
				＊PM Courtesy Call to CUSPH, discussion		＊Confirmation of Contents of Request ＠CUSPH			
11	May 8th	Thu		＊Presentation of proposal facility		＊Same as JICA members			
				＊Discussion at CUSPH		＊Same as JICA members	＊Order subcontract	＊Same as JICA members	
12	May 9th	Fri		＊Internal discussion					
			Narita→	＊Internal discussion・Consideration of facility planning					
13	May 10th	Sat	→Cairo	＊Investigation of Outpatient Dep. of CUSPH and El Mounira Hosp., Internal discussion・Consideration of facility planning					
			＊Internal discussion				＊Consideration of facility planning	＊Internal discussion	
14	May 11th	Sun	＊Courtesy Call to JICA, Courtesy Call to Cairo University			＊Same as JICA members	Depart Cairo→	＊Same as JICA members	
			＊Minutes Discussion(Discussion of proposaled facility)			＊Same as JICA members	Dubai→	＊Same as JICA members	
15	May 12th	Mon	＊Minutes Discussion(Discussion of proposaled facility)			＊Same as JICA members		＊Ministry of Health and Population(As needed, Other Donner)	＊Same as JICA members
			＊Minutes Discussion(Discussion of proposaled facility)			＊Same as JICA members	Narita		＊Same as JICA members
16	May 13th	Tue	＊Minutes Discussion(Decision of facility & Confirmation of Renovation Plan CUSPH)			＊Same as JICA members		＊Confirmation of Questionnaire ＠CUSPH	＊Same as JICA members
			Depart Cairo	＊Minutes Discussion		＊Same as JICA members		＊Confirmation of Questionnaire ＠CUSPH	＊Same as JICA members
17	May 14th	Wed		Signing of Minutes		＊Same as JICA members		＊Confirmation of Questionnaire ＠CUSPH	＊Same as JICA members
				Report to Embassy of Japan		＊Same as JICA members		＊Same as JICA members	
18	May 15th	Thu		Depart Cairo→		Depart Cairo→		Depart Cairo→	
				Dubai→		Dubai→		Dubai→	
19	May 16th	Fri		Narita		Narita		Narita	

(2) During the preparatory survey 2 (June 7 - June 28, 2014)

Members				JICA		Consultants							
				Technical Advisor	Cooperation Planning	Project Manager/ Architectural Planner	Co Project Manager/ Architectural	Equipment Planner	Facilities Utility Planner	Procurement/ Cost Planner	Construction/ Cost Planner	Architectural Planner2 (addition)	Equipment Planner2 (addition)
月日				Azusa Iwamoto	Minako Kuramitsu	Kazuyuki Otsubo	Shingo Honda	Yasuko Asanuma	Hana Shigeki	Yamada Michiko	Watanabe Dan	Ehab Elwageeh	Togashi Ryosuke
1	Jun 7th	Sat	PM			Lv.Narita→						* Same as PM	
2	Jun 8th	Sun	AM			Doha→						* Same as PM	
			PM			Ar.Cairo						* Same as PM	
3	Jun 9th	Mon	AM			* M.O.Housing						* Same as PM	* Same as EP
			PM			* CUSPH	Lv.Narita→					* Same as PM	* Same as EP
2	Jun 10th	Tue	AM			* CUSPH	Dubai→Ar.Cairo					* Same as PM	* Same as EP
			PM			* Internal Meeting						* Same as PM	* Same as EP
3	Jun 11th	Wed	AM			* Courtesy Call to Cairo Univ. & CUSPH						* Same as PM	* Same as EP
			PM			* CUSPH Explanation of Survey1 Result, Proposed Facility Plan & Hospital Management Plan						* Same as PM	* Same as EP
4	Jun 12th	Thu	AM			* CUSPH Visiting Outpatient Dept. Radiology Dept.						* Same as PM	* Same as EP
			PM			* CUSPH Interview (Administration Dept.)						* Same as PM	* Same as EP
5	Jun 13th	Fri	AM			* Internal Meeting						* Same as PM	
			PM			* Internal Meeting							
6	Jun 14th	Sat	AM			* CUSPH Interview (Allergy, Hepatology)						* Same as PM	
			PM			* CUSPH Interview (Genetic, Cardiology,Pharmacy)			Lv.Narita→	Lv.Narita→	Lv.Narita→		
7	Jun 15th	Sun	AM			* CUSPH Interview (Immunology)			Ar.Cairo	Ar.Cairo	Ar.Cairo	* Same as PM	* Same as EP
			PM			* CUSPH Interview (Chest, Rhabilitation)			* Studying Infra.		* Studying Infra.	* Same as PM	* Same as EP
8	Jun 16th	Mon	AM			* CUSPH Interview (Neurology, Cardiology)			* Studying Infra.	* Studying Procurement Situation	* Studying Infra.	* Same as PM	* Same as EP
			PM			* CUSPH Interview (Labo. Pharmacy)						* Same as PM	* Same as EP
9	Jun 17th	Tue	AM			* CUSPH Interview (Collagen)					* Studying Construction Situation	* Same as PM	* Same as EP
			PM			* CUSPH Interview (Tropical, Genetic)			* Discussing with Authorities			* Same as PM	* Same as EP
10	Jun 18th	Wed	AM			* CUSPH Interview (Gastrology, Radiology)				* Studying Local Agent		* Same as PM	* Same as EP
			PM			* CUSPH Interview (Neurology, Administration)						* Same as PM	* Same as EP
11	Jun 19th	Thu	AM			* CUSPH Interview (Cardiology) Visiting Pediatric Cancer Center					* Studying Procurement Situation	* Same as PM	* Same as EP
			PM			* CUSPH Interim Report						* Same as PM	* Same as EP
12	Jun 20th	Fri	AM			* Internal Meeting							
			PM										
13	Jun 21th	Sat	AM	Narita →		* CUSPH Interview (Cardiology, Hepatology)							
			PM	→		* CUSPH Interview Confirmation of Traning Schedule and Requested Equipment							
14	Jun 22th	Sun	AM	Ar.Cairo		* Discussing with Authorities		* Confirmation of Traning Schedule	* Discussing with Authorities	* Studying Procurement Situation		* Same as PM	* Same as EP
			PM	* CUSPH Confirmation of Interim Report & discussion					* Discussing wit			* Same as PM	* Same as EP
15	Jun 23th	Mon	AM	* CUSPH Discussing Minutes					* Studying Procurement Situation		* Studying Procurement Situation	* Same as PM	* Same as EP
			PM	* CUSPH Discussing Minutes								* Same as PM	* Same as EP
16	Jun 24th	Tue	AM	* CUSPH Discussing Minutes						* Studying Local Agent		* Same as PM	* Same as EP
			PM	* CUSPH Discussing Minutes					* Studying Plan Of Mechanical & Electorical			* Same as PM	* Same as EP
17	Jun 25th	Wed	AM	* Cairo Univ. signing Minutes								* Same as PM	* Same as EP
			PM	*Reporting results to EOJ, Lv. Cairo →								* Same as PM	* Same as EP
18	Jun 26th	Thu	AM	→		* Internal Meeting				Lv. Cairo →		* Same as PM	* Same as EP
			PM	Narita		* Signing Technical Memo				Dubai→		* Same as PM	* Same as EP
19	Jun 27th	Fri	AM			Lv. Cairo →		Lv. Cairo →				Lv. Cairo →	Lv. Cairo →
			PM			Dubai→		Dubai→		Ar.Narita		Dubai→	Dubai→
20	Jun 28th	Sat	AM										
			PM			Ar.Hamada		Ar.Narita				Ar.Hamada	Ar.Narita

(3) Explanation of Draft Report (November 29 - December 5, 2014)

			Member	JICA	Consultants				
				Cooperation Planning	Project Manager/ Architectural Planner	Co Project Manager/ Architectural Planner	Equipment Planner	Architectural Planner2 (addition)	Equipment Planner2 (addition)
				Minako Kuramitsu	Kazuyuki Otsubo	Shingo Honda	Yasuko Asanuma	Ehab Elwageeh	Togashi Ryosuke
1	Nov.29th	Sat		Lv. Haneda→					
				Doha→Ar. Cairo					
2	Nov.30th	Sun		* Courtesy Call to JICA					
				* CUSPH Discussion of Draft Report					
				* Courtesy Call to Cairo Univ. Dr. Gaber Nassar President of Cairo University & CUSPH					
3	Dec.1st	Mon		* Courtesy Call to Arab African International Bank					
				* Courtesy Call to MOIC					
4	Dec.2nd	Tue		* Reporting the result to EOJ					
				* Minutes Discussion					
5	Dec.3rd	Wed		* Signing of Minutes Lv. Cairo	* Signing of Minutes				
6	Dec.4th	Thu		→ Doha	* Internal Meeting				
				Ar. Narita	Lv. Cairo→				
7	Dec.5th	Fri			Doha→				
					Ar. Narita				

3. List of Parties Concerned

(1) Cairo University Specialized Pediatric Hospital (CUSPH)

Dr.Hala Fouad	Director of CUSPH
Dr.Ahmed Tarek	Deputy Director of CUSPH
Dr.Dalia El-Sebaie	Deputy Manager of CUSPH
Dr.Iman Khaled Eyada	Deputy Manager of CUSPH
Mr.Mohamed Zahara	Head of Engineering dep. MEP at Hospital
Mr. Amir Azmy	Chief engeneer (Biomedical)
Mr. Amal Abdel Moniem	Biomedical Engineer
Ms.Hanan	Public relation
Ms. Mervat	Accountant
Dr. Fadra Saeed	Clinical manager of Hematology
Dr. Savaha	Secretaly of Labolatory
Dr. Amal Abou El Ezz	Head of clinic, Allergy
Dr. Hala Hamdi	Sub head of clinic, Pulmonology
Dr. Hamaa El Koraksy	Head of clinic, Hepatology
Dr. Mona EL Raziky	Hepatology
Dr. Engy Mogahed	Hepatology
Dr. Hoda Abdel Ghary	Genetic
Dr. Hala Salah Hamza	Cardiology
Dr. Iras A Saad	Cardiology
Dr. Imen Abdelmohsen	Pharmacy
Dr. Safa Sayed Meshaal	Immunology
Dr. Aisha Elmarsafy	Immunology
Dr. Rabab Elhawary	Immunology
Dr. Mona El Falaki	Head of Allergy and pulmonology
Dr. Azza Kamal	Allergy & Chest
Dr. Eman El Serougy	Rheumatology and Rehabilitation
Dr. Iman Mansour	Laboratory director
Dr. Nodia Swelam	Laboratory
Mr. Asharif Zain Al-abedean	Biomedical Engineer
Dr. Iman Khalifa	Collagen
Dr. Heba Maged	Collagen
Dr. Hamy Sdiman	Genetics
Dr. Imam Ehsam	Genetics
Dr. Maha Abou Zekri	Tropical & gastroenterology
Dr. Sara Nualifa	Quality coordinator
Dr. Hassan Kiki	Radiology
Dr. Basma	Physiotherapy
Dr. Mikel	Physiotherapy
Dr. Basma Ramadan	Rheumatology / Rehabilitation
Dr. Ranya Hegazy	Arrhythmia
Dr. Dina Mehaney	Neurometabolic
Dr. Iman Mandou	Neurometabolic
Mr.Abadlulem Ashur	Head of Security
Mr.Amr Ali Farag Mousa	Deputy-head of Security

(2) Monira Hospital	
Dr.Hafez M. Bazaraa	Director of Monira pediatric hospital
Dr. Omneya Afifi	Neurology
(3) Centre for Social and Preventive Medicine (CSPM)	
Dr. Nadia Zaghlol	Director of CSPM
(4) Cairo University	
Dr.Gaber Gad Nassar	President of Cairo University
Dr.Gamal Esmat	Vice President for Graduate Studies and Research of Cairo University
Dr.Fathy Khodair	Dean of Cairo University
Dr.Hussein M.Khairy	Dean of Cairo University
Dr.Mohamed Elessawy	Genaral Manager of Cairo Univ. Hospitals
Mr. Saad Afred	General Manager of Engineering department
(5) Ministry of Housing	
Dr. Osama Hamdy	President of Technical Inspection on Construction Buildings
Dr.Raafat Abd El-Aziz Shemais	Executive Director of Housing &Building National Research Center
(6) Egyptian Meteorological Authority	
Mr. Ahmed H. Ibrahiem	Chiarman Board of Directors PR of Egypt with WMO
Ms. Nadia Hasan	Secretary
(7) Bureau of Waterworks	
Mr.Husseim Mohamed Mehessen	General Manager
Mr.Ashraq Ep Assy	Supervisor
Mr.Abdalhafaez Alsaneiny	Lab and Research Sector Head-Consultant (for water quality)
(8) Bureau of Sewage Works	
Mr. Ahmel Abdelstarali	General Supervisor for Scuda Zeinb and Khaliya
(9) Power company (ECE)	
Mr. Eid Elalfy	General Manager
(10) Fire fighting	
Mr. Colonil Tarek Rashed	Deputy Head
(11) Arab African International Bank	
Mr.Hassan Abdalla	Chief Executive Oficer
Mrs.Dalia Abdel Kader	Director of Marketing & CommunicationsSector
(11) JICA Egypt Office	
Mr. Shiro Nakasone	Senior Reppresentative

Mr.Kenichi Tago	Reppresentative
Ms.Sachiko Shah	Project Formulation Advisor
Mrs. Noura Assem	Project Officer

MINUTES OF DISCUSSIONS
PREPARATORY SURVEY
ON THE PROJECT FOR CONSTRUCTION OF OUTPATIENT FACILITY AT CAIRO UNIVERSITY SPECIALIZED PEDIATRIC HOSPITAL IN ARAB REPUBLIC OF EGYPT

In response to a request from the Government of Arab Republic of Egypt (hereinafter referred to as "Egypt"), the Government of Japan decided to conduct a Preparatory Survey on the Project for Construction of Outpatient Facility at Cairo University Specialized Pediatric Hospital (hereinafter referred to as "the Project") and entrusted the survey to the Japan International Cooperation Agency (hereinafter referred to as "JICA").

JICA sent to Egypt the Preparatory Survey Team (hereinafter referred to as "the Team"), which is headed by Mr. Yoshiharu Yoneyama, Deputy Director General, Human Development Department, and is scheduled to stay in the country from April 28 to May 15, 2014.

The Team held discussions with the officials concerned of the Government of Egypt and conducted a field survey at the survey area.

In the course of discussions and field survey, both parties confirmed the items described in the ATTACHMENT.

Cairo, May 13, 2014

米山 芳春

Mr. Yoshiharu Yoneyama
Leader
Preparatory Survey Team
Japan International Cooperation Agency
Japan

Hussein KHAIRY

Dr. Hussein M. Khairy
Dean
Faculty of Medicine,
Cairo University
Arab Republic of Egypt

Witnessed by

Mona Ahmed

Ms. Mona S. Ahmed
Under Secretary of State-East Asia Affairs
Ministry of International Cooperation
Arab Republic of Egypt

ATTACHMENT

1. Objective of the Project

The objective of the Project is to improve the service of outpatient clinic and training capacity at Cairo University Specialized Pediatric Hospital (hereinafter referred to as "CUSPH") in Egypt through the construction of an outpatient facility and procurement of equipment.

2. Project Site

The site of the Project is located at No.4, Maamal El-Barud St., El –Saieda Zeinab in Cairo, Egypt as shown in Annex-1.

3. Responsible and Implementing Agency

3-1. The Responsible Agency is the Ministry of Higher Education and Cairo University.

3-2. The Implementing Agency is the Faculty of Medicine, Cairo University and CUSPH.

4. Items Requested by the Government of Egypt

Through discussions with the Team, the Egyptian side requested following items.

(1) Construction of the outpatient facility: Plan and Section is shown in Annex-2.

(2) Procurement of Equipment: The Egyptian side will submit a medical equipment list necessary for the new outpatient building to the JICA Egypt Office by the end of May, 2014.

5. Japan's Grant Aid Scheme

5-1. The Egyptian side understood the Japan's Grant Aid Scheme, as described in Annex-3.

5-2. Both sides will take the necessary measures described in Annex-4 for smooth implementation of the Project, as a condition for the Japanese Grant Aid to be implemented.

6. Schedule of the Survey

If the Project is found feasible as a result of this survey, JICA will dispatch a mission for implementation of outline design of the Project by the middle of June, 2014.

7. Component of the Outpatient Facility

Both sides agreed that the components of the Outpatient Facility are to be the following, and as shown in Annex-5.

(1) Outpatient Clinics

Allergy, Arrhythmia, Catheterization, Cardiomyopathy, Cardiology, Chest, Collagen, Tropical, Genetic, Hepatitis, Immunology, Neurology, Post-Operative Cardiac Surgery, Rheumatic Fever

(2) Physiological Examinations

(3) Laboratory

(4) Radiology

(5) Rehabilitation

(6) Outpatient Pharmacy

(7) Seminar rooms

M-A HK

(8) Parking

(9) Outpatient Storage

(10) Administration

8.Other Relevant Issues

8-1. Title of the Project

Both sides agreed that the title of the Project shall be "Project for Construction of Outpatient Facility at Cairo University Specialized Pediatric Hospital".

8-2. Land Preparation

(1) The Japanese side confirmed that the Site was officially acquired by the Egyptian side on 24th June, 2009. However, some support beams and underground foundation had not been demolished yet. Therefore, the Egyptian side agreed to take necessary measures to complete the land preparation by December, 2015.

(2) The Egyptian side agreed on taking necessary measures to reinforce the existing wall around the land.

8-3. Special Permissions for Building Coverage and Height

(1) Special permissions regarding building coverage and height have already been officially issued; one hundred (100) % building coverage is permitted and height of thirty six (36) meters from road level is permitted as shown in Annex-6.

(2) The Egyptian side confirmed that these special permissions do not have an expiration date and that there is no need to update/re-acquire these permissions.

(3) The Egyptian side confirmed that special permission of the height of thirty six (36) meters from road surface level for outpatient facility construction was approved by the cabinet in December 2013, and that this special permission will be officially endorsed by the Ministry of Aviation and Ministry of Housing within one month.

8-4. Parking Space

Both sides confirmed that the parking space will be established on the ground floor of the building, and that the parking space for the outpatient facility construction meets the requirements of the latest Building Regulations (0.012m2×Total Floor Area), which was established by the Ministry of Housing.

8-5. Construction Permission for Outpatient facility

The Egyptian side will take necessary measures to obtain construction permission, based on the drawing for design reviewed by the Detail Design Study, for outpatient facility construction by December, 2015.

8-6. Plan for the CUSPH main building after Relocation of Outpatient Clinics

The Egyptian side explained their plans for the CUSPH main building after the relocation of outpatient clinics as follows:

(1) To increase the consultation days for surgical clinics.

(2) To renovate and increase the consultation rooms for surgical clinics to improve service environment (privacy and conformability).

8-7. Each Functions of CUSPH, Cairo University Children Hospital at Monira and Center for Social and Preventive Medicine (hereinafter referred to as "CSPM") under the Cairo University

The Egyptian side explained that CUSPH, Cairo University Children Hospital at Monira and CSPM form a medical complex providing comprehensive pediatric cares from primary to tertiary level to the populations, among others to the lower income people. Cairo University divides the roles and responsibilities among three facilities as follows:

(1) CSPM provides the preventive and curative services at primary level for mother and child.
(2) Cairo University Children Hospital at Monira provides the comprehensive pediatric services at secondary level.
(3) CUSPH provides pediatric services covering extensive sub-specialties at tertiary level.

The Egyptian side explained that Cairo University Children Hospital at Monira and CSPM also provide some sub-specialist services which should be originally at CUSPH and confirms that the Project will contribute to streamline the functions and improve the services not only at CUSPH but also Cairo University Children Hospital at Monira and CSPM.

8-8. Allocation of Additional Budget and Manpower

The Egyptian side understood that additional budget and manpower will be required for proper function of facilities and equipment to be provided by the Project upon completion. The Egyptian side agreed to secure and allocate necessary budget and staff to properly operate and maintain the facilities constructed and equipment provided by the Project.

8-9. Exemption of Tax

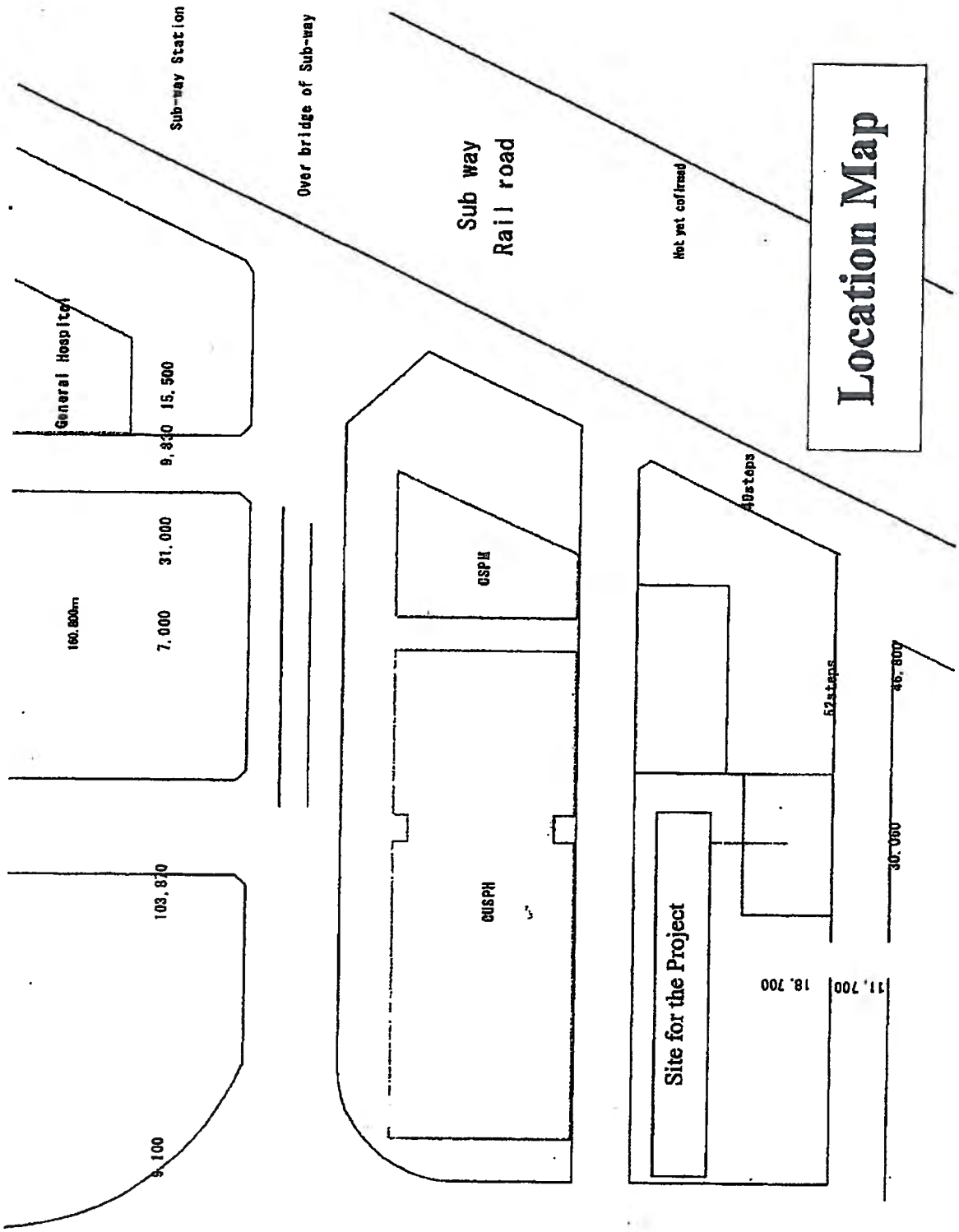
The Egyptian side understood that exemption of custom duties, internal taxes (including sales tax) and other fiscal levies which may be imposed in Egypt with respect to the purchase of products and services related to the Project must be ensured by the Egyptian government according to the approval of the concerned authorities. The Egyptian side confirmed that the responsible agency related to this issue is Ministry of Finance.

8-10. Recommendations

The Team recommended the Egyptian side to take necessary measures in order to attain the Project objective "To improve the outpatient services at CUSPH". Recommendations are:

(1) To allocate more medical doctors especially to the clinics which are chronically crowded, along with the building and equipment improvement by the Project.
(2) To arrange one or two medical staff at the reception to give quick check, in order to guide the new Outpatient Department patients to the appropriate specialties, to advise them where to go.
(3) To develop short and long term action plan for the facilities and services improvement in order to show the direction of the hospital development to all the stakeholders of the Faculty of Medicine, Cairo University.
(4) To provide the medical staff, especially younger physicians, nurses and technicians who work at the Outpatient Facility with opportunities to increase their skill and knowledge of pediatric and other medical fields.
(5) To take necessary measures to minimize the traffic of outpatient and staff between the CUSPH main building and the Outpatient Facility by adequate operation / management.

Annex-1: Site Map
Annex-2: Requested Facilities
Annex-3: Japan's Grant Aid Scheme
Annex-4: Major Undertakings to be taken by Each Government
Annex-5: Component of the Outpatient Facility
Annex-6: Special Permission for Building Height


Location Map
Sub way
Rail road
Over bridge of Sub-way
Sub-way Station
Not yet confirmed
General Hospital
15, 500
9, 830
31, 000
7, 000
160, 800m
103, 870
9, 100
OSPH
OUSPH
40steps
52steps
46, 800
30, 000
18, 700
11, 700
Site for the Project

Annex-2

May 8
2nd request

The New OPC building

4 Clinics / Floor as agreed from previous meeting

1st Floor: (2 clinic)

Parking

Reception

- Physiotherapy
- Chest
- Allergy

P.S. Chest & Allergy are 1 clinic (alternating days)

2nd Floor (3 Clinics+ area of transfusion)

- Collagen
- Tropical
- Endocrinology
- Hematology
- Area for Blood Transfusion

P.S. Collagen & Tropical are 1 clinic (alternating days)

3rd Floor (3 clinics +2 investigation rooms)

- Cardiology
- Cardiomyopathy
- Arrhythmia
- Catheterization
- Post-operative follow up
- ECG
- Echo

4th Floor (3 Clinics + 3 investigation rooms)

- Neurology
- EEG
- EMG
- Genetics
- Genetics Lab
- Hepatology

5th Floor (3 clinics + Wound dressing room)

- Ophthalmology

- Squint
- Neurosurgery
- Cardiothoracic
- Wound dressing rooms

P.S. Neurosurgery & Cardiothoracic are 1 clinic (alternating days)

6th Floor (2 clinics + 2 Wound dressing rooms +Uro Lab +Plaster room)

- General & Plastic Surgery
- Urology
- Urology Lab: Urodynamics & Sonar
- Orthopedics
- Plaster room
- Wound dressing rooms

P.S. Urology & Orthopedics are 1 clinic (alternating days)

7th Floor (Investigations floor)

- Laboratory
- Radiology

Roof:

Air Conditioner Maintenance and Control Unit

P.S.

It is important to take care, that we will need also besides the clinic:

1. Ambulance Unit.
2. Central Sterilization Department.
3. Laundry
4. Outpatient Pharmacy
5. Waste Disposal Area.
6. Electro-Mechanical: room for Generator and Electric Power and 2 Engineering Workshop.
7. Oxygen Station
8. Administrative Department: Medical Director office, Administrative Director Office & Nursing Director Office& Engineer Office.
9. Change rooms for Nurses and Porters.
10. Statistics and Medical recording.
11. Medical Records Achieve.
12. Storage Department: 3 stores; 1 supplies, 1 materials & 1 medications.

Annex-3

Japan's Grant Aid Scheme

The Government of Japan (hereinafter referred to as "the GOJ") is implementing the organizational reforms to improve the quality of ODA operations, and as a part of this realignment, a new JICA law was entered into effect on October 1, 2008. Based on this law and the decision of the GOJ, JICA has become the executing agency of the Grant Aid for General Projects, for Fisheries and for Cultural Cooperation, etc.

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

1. Grant Aid Procedures

The Japanese Grant Aid is supplied through following procedures :

- Preparatory Survey
  - The Survey conducted by JICA
- Appraisal & Approval
  - -Appraisal by the GOJ and JICA, and Approval by the Japanese Cabinet
- Authority for Determining Implementation
  - -The Notes exchanged between the GOJ and a recipient country
- Grant Agreement (hereinafter referred to as "the G/A")
  - -Agreement concluded between JICA and a recipient country
- Implementation
  - -Implementation of the Project on the basis of the G/A

2. Preparatory Survey

(1) Contents of the Survey

The aim of the preparatory Survey is to provide a basic document necessary for the appraisal of the Project made by the GOJ and JICA. The contents of the Survey are as follows:

- Confirmation of the background, objectives, and benefits of the Project and also institutional capacity of relevant agencies of the recipient country necessary for the implementation of the Project.
- Evaluation of the appropriateness of the Project to be implemented under the Grant Aid Scheme from a technical, financial, social and economic point of view.
- Confirmation of items agreed between both parties concerning the basic concept of the Project.
- Preparation of a outline design of the Project.
- Estimation of costs of the Project.

The contents of the original request by the recipient country are not necessarily approved in their initial form as the contents of the Grant Aid project. The Outline Design of the Project is confirmed based on the guidelines of the Japan's Grant Aid scheme.

JICA requests the Government of the recipient country to take whatever measures necessary to achieve 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 of the recipient country which actually implements the Project. Therefore, the implementation of the Project is confirmed by all relevant organizations of the recipient country based on the Minutes of Discussions.

(2) Selection of Consultants

For smooth implementation of the Survey, JICA employs (a) registered consulting firm(s). JICA selects (a) firm(s) based on proposals submitted by interested firms.

(3) Result of the Survey

JICA reviews the Report on the results of the Survey and recommends the GOJ to appraise the implementation of the Project after confirming the appropriateness of the Project.

3. Japan's Grant Aid Scheme

(1) The E/N and the G/A

After the Project is approved by the Cabinet of Japan, the Exchange of Notes(hereinafter referred to as "the E/N") will be singed between the GOJ and the Government of the recipient country to make a pledge for assistance, which is followed by the conclusion of the G/A between JICA and the Government of the recipient country to define the necessary articles to implement the Project, such as payment conditions, responsibilities of the Government of the recipient country, and procurement conditions

(2) Selection of Consultants

In order to maintain technical consistency, the consulting firm(s) which conducted the Survey will be recommended by JICA to the recipient country to continue to work on the Project's implementation after the E/N and G/A.

(3) Eligible source country

Under the Japanese Grant Aid, in principle, Japanese products and services including transport or those of the recipient country are to be purchased. When JICA and the Government of the recipient country or its designated authority 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, constructing and procurement firms, and the prime consulting firm are limited to "Japanese nationals".

(4) Necessity of "Verification"

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

(5) Major undertakings to be taken by 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 Annex.

(6) "Proper Use"

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

(7) "Export and Re-export"

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

(8) Banking Arrangements (B/A)

a) The Government of the recipient country or its designated authority should open an account under the name of the Government of the recipient country in a bank in Japan (hereinafter referred to as "the Bank"). JICA 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 JICA under an Authorization to Pay (A/P) issued by the Government of the recipient country or its designated authority.

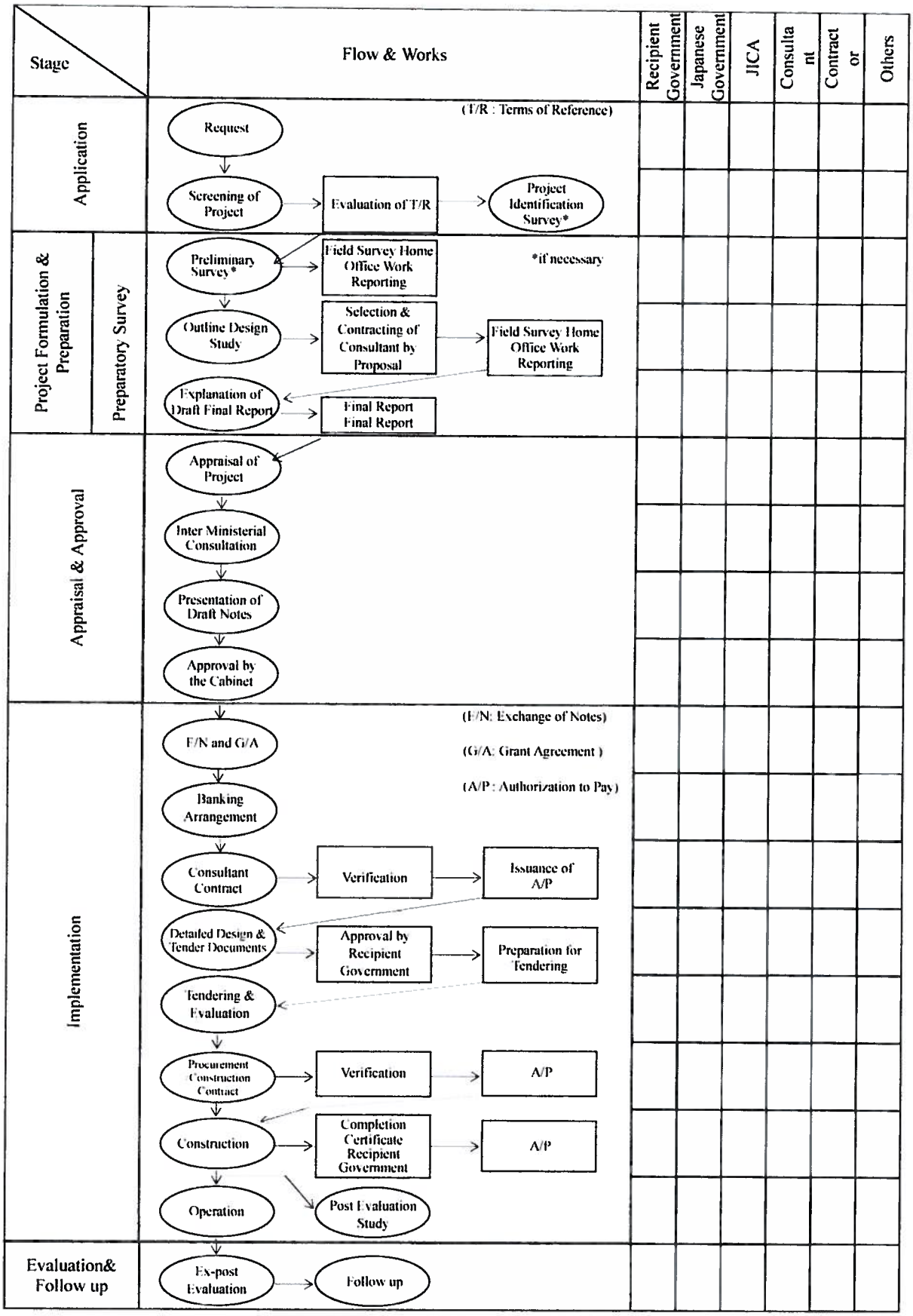
(9) Authorization to Pay (A/P)

The Government of the recipient country should bear an advising commission of an Authorization to Pay and payment commissions paid to the Bank.

(10) Social and Environmental Considerations

A recipient country must carefully consider social and environmental impacts by the Project and must comply with the environmental regulations of the recipient country and JICA socio-environmental guidelines.

4. Flow Chart of Japan's Grant Aid Procedures



Annex-4

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 a lot of land necessary for the implementation of the Project and to clear the sites		●
2	To construct the following facilities		
	1) The building	●	
	2) The gates and fences in and around the site		●
	3) The parking lot	●	
	4) The road within the site	●	
	5) The road outside the site		●
3	To provide facilities for distribution of electricity, water supply and drainage and other incidental facilities necessary for the implementation of the Project outside the sites		
	1) Electricity		
	a. The distributing power 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, common 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	●	
4	To ensure prompt customs clearance of the products and to assist internal transportation of the products in the 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	(●)	(●)
5	To ensure that customs duties, internal taxes and other fiscal levies which may be imposed in the recipient country with respect to the purchase of the products and the services be exempted.(According to the approval of the concerned authorities)		●
6	To accord Japanese nationals whose services may be required in connection with the supply of the products and the services such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work		●
7	To ensure that the facilities and the products be maintained and used properly and effectively for the implementation of the Project		●
8	To bear all the expenses, other than those covered by the Grant, necessary for the implementation of the Project		●
9	To bear the following commissions paid to the Japanese bank for banking services based upon the B/A		
	1) Advising commission of A/P		●
	2) Payment commission		●

(B/A : Banking Arrangement, A/P : Authorization to pay)

ANNEX-5

The OPD facility 11 May,2014

<Principles>

1. Should select internal medicine pediatrics (not surgery) according to the last MM,
2. If 'alternating days' count '0.5 dept.',
3. Should include training function according to the last MM.

1st floor

- Parking
- Reception
- OPD pharmacy
- Physiotherapy
- Electro-mechanical room for generator…

2nd floor

- Radiology
- Laboratory

3rd floor

- Chest/allergy
- Collagen/(tropical)

4th floor

- Neurology
- EEG, EMG

5th floor (cardiac center)

- Cardiology/catheterization
- Cardiomyopathy
- Arrhythmia
- Post. Op. cardiac
- Rheumatic fever
- ECG, Ultrasound (cardiac)

6th floor

- Genetic
- Genetic Labo
- Hepatitis
- Immunology
- OPD storage dept./stores/supplies/materials

7th floor

- Administrative dept. /offices
- Training and Meeting Room

Annex-6

ARAB REPUBLIC OF EGYPT
MINISTRY OF PLANNING AND INTERNATIONAL COOPERATION
ASIAN COOPERATION SECTOR

وزارة التعاون الدولى
قطاع التعاون الاسيوى
صادر رقم ١٢٩٧ مرفقات م
التاريخ ٢٠١٣/١١/٢١ التوقيع

Mr. Uyichi OBA,
Economic Counsellor,
Embassy of Japan,
Cairo.

November , 2013

Dear Mr. OBA,

It gives us great pleasure to cooperate with your team in the coming period for consolidating the cordial relations between Egypt and Japan.

In the meanwhile, we would like to refer to the Project of Out-Patient Facility at Cairo University Specialized Pediatric Hospital (CUSPH) requested to be financed through Japanese Grant-Aid Scheme.

In this regard, we have the pleasure to convey to you the approval of the Egyptian Cabinet on the height of 36 meter of the hospital building to match the design carried previously by the Japanese side.

You are kindly requested to convey this matter to the Japanese concerned authority, and we are looking forward to receive the draft of the EN of the expected grant as soon as possible.

While thanking your continuous cooperation, Please accept my best regards.

For/ Sincerely Yours;
Sanaa Barakat
(Mona Ahmed)
Under Secretary of State
East Asian Department

C.C.: Mr. Hideki MATSUNAGA,
Chief Representative,
JICA Egypt Office.

وزارة التعاون الدولى
قطاع التعاون الاسيوى
صادر رقم ١٢٩٨ مرفقات
التاريخ ٢٠١٣/١١/٢١ التوقيع

21/11/2013
Page 1 of 1

approval.doc

M.A MF

MINUTES OF DISCUSSIONS
ON
PREPARATORY SURVEY
ON THE PROJECT FOR CONSTRUCTION OF OUTPATIENT FACILITY AT CAIRO UNIVERSITY SPECIALIZED PEDIATRIC HOSPITAL IN ARAB REPUBLIC OF EGYPT

In response to a request from the Government of Arab Republic of Egypt (hereinafter referred to as "Egypt"), the Government of Japan decided to conduct a Preparatory Survey on the Project for Construction of Outpatient Facility at Cairo University Specialized Pediatric Hospital (hereinafter referred to as "the Project") and entrusted the survey to the Japan International Cooperation Agency (hereinafter referred to as "JICA").

JICA sent to Egypt the Preparatory Survey Team from April 28th to May 15th, 2014, which was headed by Mr. Yoshiharu Yoneyama, Deputy Director General of Human Development Department of JICA, to confirm the contents and validity of the request, and the Minutes of Discussions was signed on May 13th, 2014. Consequently, JICA has sent the second Preparatory Survey Team (hereinafter referred to as "the Team"), which is headed by Mr. Shiro Nakasone, Senior Representative of JICA Egypt Office, to develop the basic design of the Project, and the Team is scheduled to stay in the country from June 8th to June 27th, 2014.

The Team held discussions with the officials concerned of the Government of Egypt and conducted a field survey at the survey area.

In the course of discussions and field survey, both parties confirmed the items described in the ATTACHMENT.

Cairo, June 25th 2014

Mr. Shiro Nakasone
Senior Representative
Egypt Office
Japan International Cooperation Agency
Japan

Dr. Hussein M. Khairy
Dean
Faculty of Medicine,
Cairo University
Arab Republic of Egypt

ATTACHMENT

1. Objective of the Project

The objective of the Project is to improve the service of outpatient clinic and training capacity at Cairo University Specialized Pediatric Hospital (hereinafter referred to as "CUSPH") in Egypt through the construction of an outpatient facility and procurement of equipment.

2. Project Site

The site of the Project is located at No.4, Maamal El-Barud St., El –Saieda Zeinab in Cairo, Egypt as shown in Annex 1.

3. Responsible and Implementing Agency

3-1. The Responsible Agency is the Ministry of Higher Education and Cairo University.

3-2. The Implementing Agency is the Faculty of Medicine of Cairo University and CUSPH.

4. Items Requested by the Government of Egypt

Through discussions with the Team, the items described in Annex 2 and 3 were finally requested by the Egyptian side. JICA will assess the appropriateness of the request and will recommend to the Government of Japan for its approval.

(1) Construction of outpatient facility: Details are shown in Annex 2.

(2) Procurement of Equipment: Requested items with priority are listed in Annex 3.

5. Japan's Grant Aid Scheme

5-1. The Egyptian side understood the Japan's Grant Aid Scheme, as described in Annex 4.

5-2. Both sides will take the necessary measures described in Annex 5 for smooth implementation of the Project, as a condition for the Japanese Grant Aid to be implemented.

6. Schedule of the Survey

6-1. The consultants of the Team will proceed with further survey in Egypt until June 27th, 2014.

6-2. JICA will prepare the draft report in English which describes the basic design of the Project and will dispatch a mission in order to explain its contents in December, 2014.

6-3. In case the basic design is accepted in principle by the Government of Egypt, JICA will submit the draft report to the Government of Japan for the Project appraisal. Through the appraisal, the Japanese Cabinet will make a final decision for the implementation of the Project. If the Project is approved by the Japanese Cabinet, the final report (the Preparatory Survey Report) will be sent to the Government of Egypt.

6-4. The above schedule is tentative and subject to change.

7. Other Relevant Issues

7-1. Project Site

The Egyptian side explained that the Project site as shown in Annex 1 was donated by "We Owe It to Egypt" to the Cairo University in 2009, however, the contract between "We Owe It to Egypt" and Cairo University was valid for only 5 years and has become invalid since January 2014. It has been explained by the Egyptian side that the ownership of the Project site is currently at "We Owe It to Egypt". The Egyptian side agreed to take all necessary measures to secure the land and to issue and submit an official letter regarding the acquirement of the land to JICA Egypt Office by July 31st, 2014. The Egyptian side understood that the Japanese side will not be able to proceed with further study on the Project without evidence on the securement of land.

7-2. Parking Space

The Housing and Building National Research Center under the Ministry of Housing and Urban Communities confirmed that the required parking space for the Project is two hundred twenty five square meters ($225m^2$) as mentioned in Annex 6. The Japanese side prepared the drawing for the parking space accordingly, and the Housing and Building National Research Center confirmed that the drawing meets the requirement of parking space for the Project as shown in Annex 7.

7-3. Special Permission on Building Height

Special permission regarding building height has been issued by the Prime Minister's Office, Ministry of Housing and Urban Communities and Supreme Council for Planning and Urban Development as shown in Annex 8 and from the Ministry of Civil Aviation as shown in Annex 9. However, in the special permission issued by the Ministry of Housing and Urban Communities and the Supreme Council for Planning and Urban Development, it is mentioned that special permission is given on the condition that additional parking space is prepared in the existing CUSPH. Both Egyptian and Japanese sides confirmed that the Japanese side is not responsible for preparing additional parking space for the existing CUSPH. CUSPH agreed to take necessary measures so that the building height of 36 meters is secured. CUSPH will obtain an official letter issued by the Ministry of Housing and Urban Communities on this issue and submit it to JICA Egypt Office by July 31st, 2014.

7-4. Building Coverage

The Team confirmed with the Ministry of Housing and Urban Communities that the building coverage of one hundred (100) % for the Project site has been approved and that the approval does not have an expiration date.

7-5. Allocation of Additional Budget and Manpower

The Egyptian side agreed to secure and allocate necessary budget and staff to properly operate and maintain the facilities and equipment provided by the Project.

7-6. Undertakings to be taken by the Egyptian Side

The Egyptian side understood that if the Project will be implemented, the Egyptian side is responsible for securing site for storing construction material and temporary site office as well as construction yard close to the Project site, and for relocating equipment, furniture, etc from the current existing hospital to the new outpatient facility.

END

Annex 1: Site Map
Annex 2: Requested Facilities
Annex 3: List of Equipment
Annex 4: Japan's Grant Aid Scheme
Annex 5: Major Undertakings to be taken by Each Government
Annex 6: Letter from Housing and Building National Research Center Regarding Parking Space
Annex 7: Confirmation on Parking Space by Housing and Building National Research Center
Annex 8: Special Permission on Building Height from the Prime Minister's Office, the Ministry of Housing and Urban Communities and the Supreme Council for Planning and Urban Development
Annex 9: Special Permission on Building Height from the Ministry of Civil Aviation
Annex 10: Letter from the Ministry of Higher Education to Cairo University on Building Height
Annex 11: Minutes of Discussions Signed on May 13th, 2014

Location Map

Annex-1

ANNEX-2

25 June, 2014

The OPD facility

1st floor

- Parking
- Reception
- Electro-mechanical room for generator…

2nd floor

- Physiotherapy
- Laboratory

3rd floor

- Radiology , Ultrasound
- Chest/allergy
- Collagen/ Immunology

4th floor

- Neurology
- Neuro Metabolic/Neuro Muscular/ICU Discharged/NICU Discharged
- EEG, EMG

5th floor (cardiac center)

- General Cardiology
- Pre-Catheterize/ Post-Catheterize/Follow up
- Cardiomyopathy
- Arrhythmia
- Post. Op. cardiac
- Rheumatic fever
- ECG, Echo

6th floor

- Genetic
- Genetic Labo
- Hepatology/Tropical

7th floor

- OPD pharmacy
- Administrative dept. /offices
- Training Room
- OPD storage dept./stores/supplies/materials

Code No.	Name of Department	Description in English	priority	Planned Qty
1	Outpatient consultation	Examining table	A	47
2	Outpatient consultation	Examining Lamp incandescent	A	13
3	Outpatient consultation	Instrument cabinet	A	13
4	Outpatient consultation	Foot step , 2 steps	C	0
5	Outpatient consultation	Film illuminator (2 Screen)	A	13
6	Outpatient consultation	Sphygmomanometer, Stand type for Pediatric	C	0
7	Outpatient consultation	Stethoscope for pediatric	C	0
8	Outpatient consultation	Weighing scale for infant	A	13
9	Outpatient consultation	Height scale for child	A	13
10	Outpatient consultation	Weighing scale for child	A	13
11	Outpatient consultation	Otoscope	A	2
12	Outpatient consultation	Ophthalmoscope	C	0
13	Outpatient consultation	Oxygen humidifier	C	0
14	Outpatient consultation	Ultrasonic Nebulizer	A	1
15	Radiology	Fluoroscopy system	C	0
16	Radiology	CT scan	C	0
17	Radiology	X-ray unit	A	1
18	Radiology	CR unit	A	1
19	Radiology	Image Printer	A	1
20	Pharmacy	Medicine cabinet	A	4
21	Pharmacy	Instrument cabinet	A	4
22	Pharmacy/clinics	Medical refrigerator	A	5
23	Pharmacy	Rack	A	2
24	Physiotherapy	Muscle stimulator / Faradic 4 channels	A	1
25	Physiotherapy	Ultra sound therapy unit	A	1
26	Physiotherapy	Electric adjusted plinth sling suspension therapy	B	1
27	Physiotherapy	Biofeedback	B	3
28	Physiotherapy	Incentive spirometer	C	0
29	Physiotherapy	Neonatal vibrator	C	0
30	Physiotherapy	Spirometry	A	1
31	Physiotherapy	Matts, rolls, wedges, balls	A	1
32	Physiotherapy	Whirlpool bath	A	2
33	Physiotherapy	Wall bars	A	1
34	Physiotherapy	Parallel bar	A	1
35	Physiotherapy	Conductive education; Cubs	A	1
36	Physiotherapy	Conductive education; Bicycles	A	1
37	Physiotherapy	Standing table	A	1
38	Physiotherapy	Sitting table	A	1
39	Physiotherapy	Balancing table	A	1
40	Neurology Unit	EEG machine	A	1
41	Neurology Unit	EMG machine	A	1
42	Neuro metabolic / molecular	Liquid chromatography/Tandem mass spectrometry (Micromass)	A	1
43	Neuro metabolic / molecular	Plate Puncher	A	1
44	Neuro metabolic / molecular	Thermo plate shaker	A	1
45	Neuro metabolic / molecular	Weight(4 digits)	A	1
46	Neuro metabolic / molecular	Cooling Centrifuges (wasserman /falcon tubes)	A	0
47	Neuro metabolic / molecular	Eppendorf centrifuge	C	0
48	Neuro metabolic / molecular	Water bath	C	0
49	Neuro metabolic / molecular	Fumehood	C	0
50	Neuro metabolic / molecular	lab fridge(-80 C)	A	1
51	Neuro metabolic / molecular	lab Fridges (-20C)	A	1
52	Neuro metabolic / molecular	lab fridges (2-8 C)	C	0
53	Neuro metabolic / molecular	Water filtration system	C	0
54	Neuro metabolic / molecular	Lab computer system	C	0
55	Training center	Audio Sound System	C	0
56	Training center	Central venous line simulator	C	0
57	Training center	Intra muscular injection simulator	A	3
58	Training center	Peripheral catheter simulator	A	3
59	Training center	I O (infant Intra - Osseous simulator)	A	3
60	Training center	CPR Neonatal simulator	A	3
61	Training center	Umbilical catheter simulator	A	3
62	Training center	Intubations simulator (Pediatric)	A	3
63	Training center	Intubations simulator (Neonatal)	A	3
64	Training center	CPR Pediatric simulator	A	3
65	Training center	Training Tables	A	6
66	Training center	Chair (for training table)	A	36
67	Training center	White board for lecture room	C	0
68	Training center	Wall mount projector	A	1
69	Training center	Projector	A	1
70	Training center	Projector screen	A	1
71	Training center	Instrument cabinet	A	1
72	Training center	Medicine cabinet	A	1
73	Training center	Hand scrub	C	0
74	Training center	Emergency cart	A	1
75	Hematology Unit	5 part automated cell counter with immature cell compartment quantitation	A	1
76	Hematology Unit	Automatedd coagulation analyzer	B	1

Code No.	Name of Department	Description in English	priority	Planned Qty
77	Hematology Unit	Research quality binocular microscope	A	1
78	Hematology Unit	Incubator	A	1
79	Hematology Unit	Centrifuge	A	2
80	Hematology /Chemistry/Bacteriology U	Two door reagent Refrigerator with lock	A	3
81	Hematology/Bacteriology/Chemistry U	Refrigerator with freezer and lock	A	3
82	Immunology Unit	Bench top Automated immunology analyzer (TORCH and Hepatitis tests)	A	1
83	Immunology Unit	Fluorescent microscope	B	1
84	Immunology Unit	Binocular light microscope	A	1
85	Immunology Unit	ELISA Microplate reader & washer	A	1
86	Immunology Unit	Nephelometer	C	0
87	Bacteriology Unit	VITEC(automated identification and sensitivity system)	C	0
88	Bacteriology Unit	Automated blood culture system for T.B	A	1
89	Bacteriology Unit	Automated blood culture system	A	1
90	Bacteriology Unit	Laminar flow cabinet (class 2)	A	1
91	Bacteriology Unit	Laminar flow cabinet (class 3)	C	0
92	Bacteriology Unit	Binocular Microscope	A	2
93	Bacteriology Unit	Balance (sensitive balance digital)	C	0
94	Bacteriology Unit	Autoclave (bench top)	C	0
95	Bacteriology Unit	Incubator	C	0
96	Bacteriology Unit	Centrifuge	C	0
97	Bacteriology Unit	Incinerator	C	0
98	Bacteriology Unit	-80°C Freezer	A	1
101	Bacteriology Unit	Hemocytometer	A	2
102	Clinical Chemistry Unit	Discrete, random access, fully automated chemistry analyzer with STAT capabilities	A	1
103	Clinical Chemistry Unit	Fully automated electrolyte analyzer with built in numercial display and thermal	A	1
104	Arrhythmia clinic	Head tilt table	A	1
105	Cardiomyopathy	High signal averaging ECG	A	1
106	Cardiomyopathy	Holter unit(analyzer)	A	2
107	Cardiomyopathy	Holter reader	A	4
108	Cardiomyopathy	Echo machine	C	0
109	Cardiomyopathy	Non-invasive monitor for Heart Rate (HR), Blood Pressure (BP) and saturation	A	1
110	Echo Lab	Echo machine	A	2
111	Echo Lab	Non-invasive monitor for HR, BP and saturation	C	0
112	General cardiology	Non-invasive monitor for HR, BP and saturation	A	1
113	Post operative	Echo machine	A	1
114	Post operative	ECG	C	0
115	Post operative	Non-invasive monitor for HR, BP and saturation	A	1
116	Service	Non-invasive monitor for HR, BP and saturation	C	0
117	Service	ECG	A	2
118	Service	Ambulatory blood pressure measurement	C	0
119	Service	Exercise test (Treadill)	A	1
120	Service	Non-invasive monitor for HR, BP and saturation	A	1
121	Service	Stress ECG	C	0
122	Pre-catheterize	Echo machine	C	0
123	Pre-catheterize	ECG	C	0
124	Pre-catheterize	Non-invasive monitor for HR, BP and saturation	A	1
125	Clinical genetics	Desk, Bed, Computer with internet and genetics diagnosis software (London Dysmorphology database, Oxford database), X-ray lamp.	C	0
126	Clinical genetics	Scales for height, weight, span and BMI for pediatric and adult age groups. (calibrated).	C	0
		Wall mount scale for height and span for photographing the cases.	C	0
		Digital photography (High Definition Digital Camera with wide angle lens ring flash and professional tripod).	C	0
127	Clinical genetics	Computer (server) with software for patient data, medical sheet, investigations, follow up.	C	0
		Scanner and printer.	C	0
		Medical secretary for archiving, reporting, filing and scanning.	C	0
128	Clinical genetics	Emery text book, Smith recognizable pattern of human malformation.	C	0
		Genetics in medicine, ACMG.	C	0
129	Clinical genetics	Proper reclining chair with arm rest, bed, storage unit for sampling equipment.	C	0

A : Giving High Priority, and multiple benefit for improvement of medical services at New outpatient facility.
B : Confirmed the necessity, but further survey & analysis is needed.
C : Not consider under this project.
* Quantity listed above might be changed at futher domestic analysis in Japann.

Annex-4

Japan's Grant Aid Scheme

The Government of Japan (hereinafter referred to as "the GOJ") is implementing the organizational reforms to improve the quality of ODA operations, and as a part of this realignment, a new JICA law was entered into effect on October 1, 2008. Based on this law and the decision of the GOJ, JICA has become the executing agency of the Grant Aid for General Projects, for Fisheries and for Cultural Cooperation, etc.

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

1. Grant Aid Procedures

The Japanese Grant Aid is supplied through following procedures :

- Preparatory Survey
  - The Survey conducted by JICA
- Appraisal & Approval
  - -Appraisal by the GOJ and JICA, and Approval by the Japanese Cabinet
- Authority for Determining Implementation
  - -The Notes exchanged between the GOJ and a recipient country
- Grant Agreement (hereinafter referred to as "the G/A")
  - -Agreement concluded between JICA and a recipient country
- Implementation
  - -Implementation of the Project on the basis of the G/A

2. Preparatory Survey

(1) Contents of the Survey

The aim of the preparatory Survey is to provide a basic document necessary for the appraisal of the Project made by the GOJ and JICA. The contents of the Survey are as follows:

- Confirmation of the background, objectives, and benefits of the Project and also institutional capacity of relevant agencies of the recipient country necessary for the implementation of the Project.
- Evaluation of the appropriateness of the Project to be implemented under the Grant Aid Scheme from a technical, financial, social and economic point of view.
- Confirmation of items agreed between both parties concerning the basic concept of the Project.
- Preparation of a outline design of the Project.
- Estimation of costs of the Project.

The contents of the original request by the recipient country are not necessarily approved in their initial form as the contents of the Grant Aid project. The Outline Design of the Project is confirmed based on the guidelines of the Japan's Grant Aid scheme.

JICA requests the Government of the recipient country to take whatever measures necessary to achieve 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 of the recipient country which actually implements the Project. Therefore, the implementation of the Project is confirmed by all relevant organizations of the recipient country based on the Minutes of Discussions.

(2) Selection of Consultants

For smooth implementation of the Survey, JICA employs (a) registered consulting firm(s). JICA selects (a) firm(s) based on proposals submitted by interested firms.

(3) Result of the Survey

JICA reviews the Report on the results of the Survey and recommends the GOJ to appraise the implementation of the Project after confirming the appropriateness of the Project.

3. Japan's Grant Aid Scheme

(1) The E/N and the G/A

After the Project is approved by the Cabinet of Japan, the Exchange of Notes(hereinafter referred to as "the E/N") will be singed between the GOJ and the Government of the recipient country to make a pledge for assistance, which is followed by the conclusion of the G/A between JICA and the Government of the recipient country to define the necessary articles to implement the Project, such as payment conditions, responsibilities of the Government of the recipient country, and procurement conditions

(2) Selection of Consultants

In order to maintain technical consistency, the consulting firm(s) which conducted the Survey will be recommended by JICA to the recipient country to continue to work on the Project's implementation after the E/N and G/A.

(3) Eligible source country

Under the Japanese Grant Aid, in principle, Japanese products and services including transport or those of the recipient country are to be purchased. When JICA and the Government of the recipient country or its designated authority 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, constructing and procurement firms, and the prime consulting firm are limited to "Japanese nationals".

(4) Necessity of "Verification"

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

(5) Major undertakings to be taken by 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 Annex.

(6) "Proper Use"

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

(7) "Export and Re-export"

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

(8) Banking Arrangements (B/A)

a) The Government of the recipient country or its designated authority should open an account under the name of the Government of the recipient country in a bank in Japan (hereinafter referred to as "the Bank"). JICA 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 JICA under an Authorization to Pay (A/P) issued by the Government of the recipient country or its designated authority.

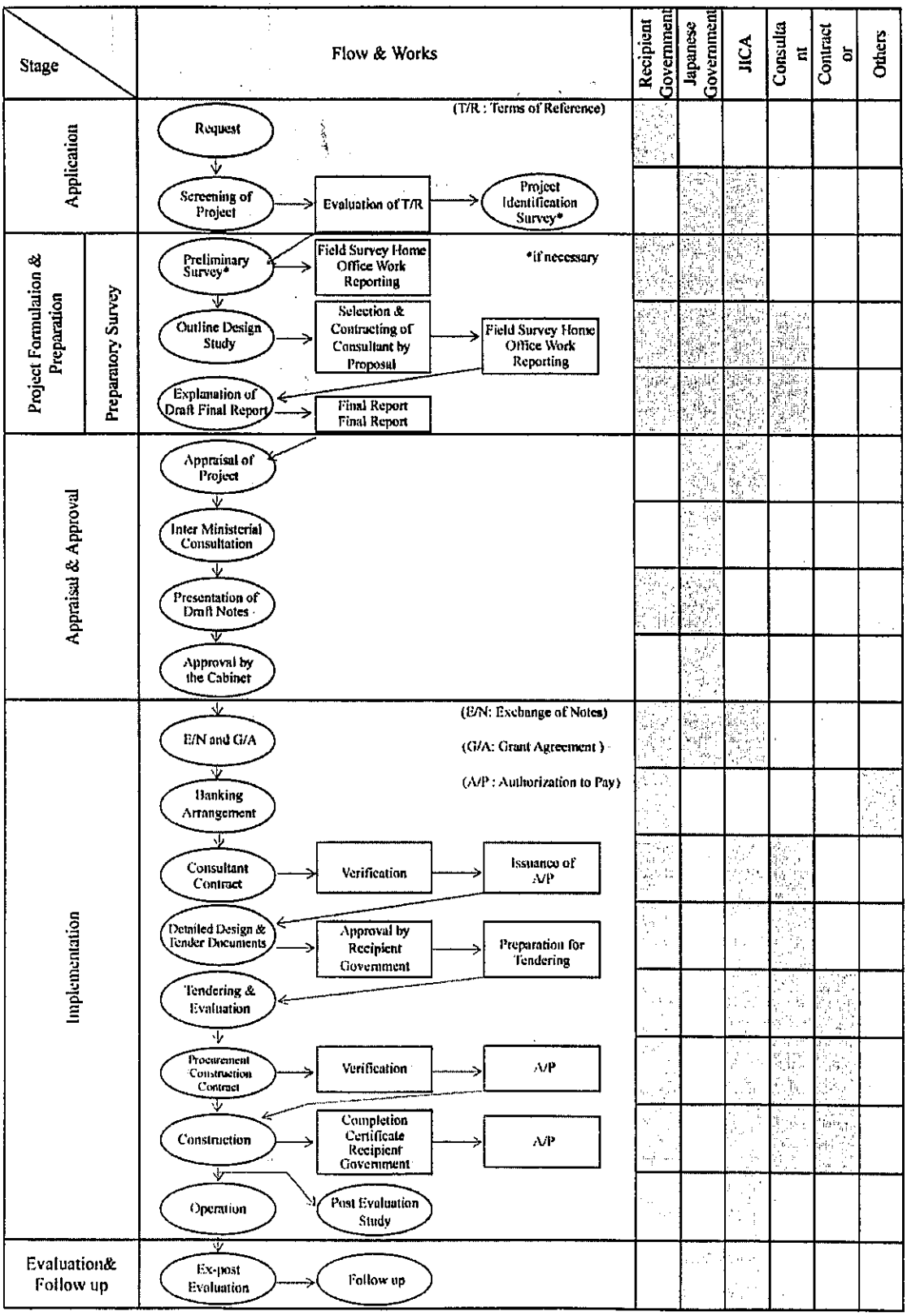
(9) Authorization to Pay (A/P)

The Government of the recipient country should bear an advising commission of an Authorization to Pay and payment commissions paid to the Bank.

(10) Social and Environmental Considerations

A recipient country must carefully consider social and environmental impacts by the Project and must comply with the environmental regulations of the recipient country and JICA socio-environmental guidelines.

4. Flow Chart of Japan's Grant Aid Procedures



Annex-5

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 a lot of land necessary for the implementation of the Project and to clear the sites		●
2	To construct the following facilities		
	1) The building	●	
	2) The gates and fences in and around the site		●
	3) The parking lot	●	
	4) The road within the site	●	
	5) The road outside the site		●
3	To provide facilities for distribution of electricity, water supply and drainage and other incidental facilities necessary for the implementation of the Project outside the sites		
	1) Electricity		
	a. The distributing power 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, common 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	●	
4	To ensure prompt customs clearance of the products and to assist internal transportation of the products in the 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	(●)	(●)
5	To ensure that customs duties, internal taxes and other fiscal levies which may be imposed in the recipient country with respect to the purchase of the products and the services be exempted.(According to the approval of the concerned authorities)		●
6	To accord Japanese nationals whose services may be required in connection with the supply of the products and the services such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work		●
7	To ensure that the facilities and the products be maintained and used properly and effectively for the implementation of the Project		●
8	To bear all the expenses, other than those covered by the Grant, necessary for the implementation of the Project		●
9	To bear the following commissions paid to the Japanese bank for banking services based upon the B/A		
	1) Advising commission of A/P		●
	2) Payment commission		●

(B/A : Banking Arrangement, A/P : Authorization to pay)

Annex 6

المركز القومي لبحوث الإسكان و البناء
Housing & Building National Research Center
معهد التدريب والدراسات الحضرية
Urban Training & Studies Institute

السيد الدكتور/ إيهاب الوجيه

مدير قسم التصميمات المبتكرة ـ نيهون سيككي الدولية

٥٨١ ٣١
٢٠١٤/٦/١١

تحية طيبة وبعد،،،

ايماء الي مخاطبة سيادتكم بتاريخ ٢٠١٤/٦/١ بخصوص الإشتراطات اللازمة لكود الجراجات لتصميم الجراج الخاص بمستشفي مكون من دور أرضي و ٧ أدوار متكررة ، ومساحة الدور ٥٠٠ م٢ والمساحة الكلية ٣٥٠٠ م٢ ومساحة الموقع ٥٠٠ م٢.

وايماء الي اجتماع يوم الأثنين الموافق ٢٠١٤/٦/٩ الذي تم بحضور سيادتكم وبحضور كلا من السادة : أ/ كازوكي اوتسوبو ، أ/ نورا عاصم.

والذي انتهي الي أنه :

١) تم دراسة المشروع وحساب مسطحاته وتبين ان لا ينطبق عليه اشتراطات الكود المصري لاشتراطات الامان للمنشات متعددة الاغراض الجزء الاول الجراجات وينطبق عليه الملحق (أ) من الكود المواد أرقام (أ/١) و(أ/٢) و (أ/٣).

٢) تبين ان المساحة المطلوبة للجراج هي ٢٢٥متر٢.

وتفضلوا بقبول فائق الاحترام،،،

نائب رئيس مجلس الإدارة

أ.د /

ناصر جمال عبد الغفور

المركز القومي لبحوث الإسكان والبناء
لجنة مراجعة المشروعات متعددة الاغراض
صادر / وارد
تاريخ المحلد المرفقات

87 Tahrir street, Dokki, Egypt – P.O. Box: 678 Orman, Giza - Egypt
Tel: +202-33351649 / 37497759 – Fax: 33352397

٨٧ ش التحرير، الدقي، الجيزة – ص.ب: ٦٧٨ الأورمان، الجيزة - مصر
ت: ٣٣٣٥١٦٤٩/٣٧٤٩٧٧٥٩ - ٠٠٢٠٢ – فاكس: ٣٣٣٥٢٣٩٧

Housing & Building National Research Center
Urban Training & Studies Institute

To Dr. Ehab Elwageeh

Creative Design Group Leader
Nihon Sekkei International

Greetings...

Reference to your letter on 1/6/2014, related to the requirements needed for Parking code to design the private parking for the hospital consist of ground floor, and 6 typical floors, and the area of typical floor is 500 sqm, total floor area is 3500 sqm, and area of the site is 500sqm.

And reference to the meeting held on Monday 9/6/2014, which was done by your attendance with Mr. Kazuyuki Otsubo, and Ms. Noura Assem.
And concluded to:

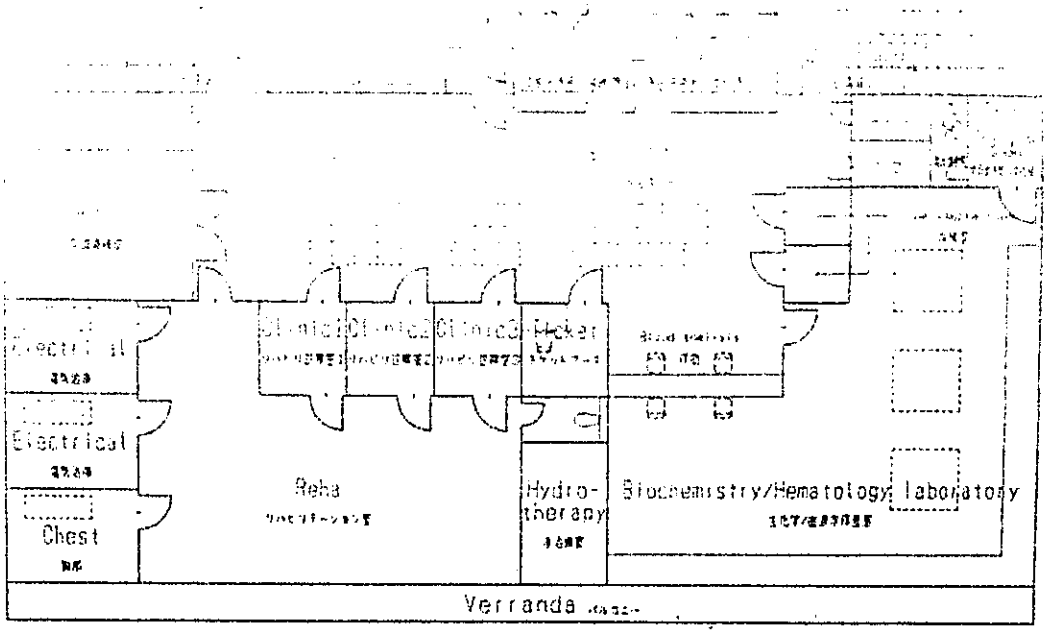
1- After studying the project and calculated its area, we concluded that the Egyptian's safety Code requirements for multi-purpose buildings, Part One, Parking; cannot apply to this project.
And the appendix (A) from the code (A, 1), (A, 2), and (A, 3) can apply to this project.

2- Concluded that the required area for parking is 225 sqm.

Best Regards,

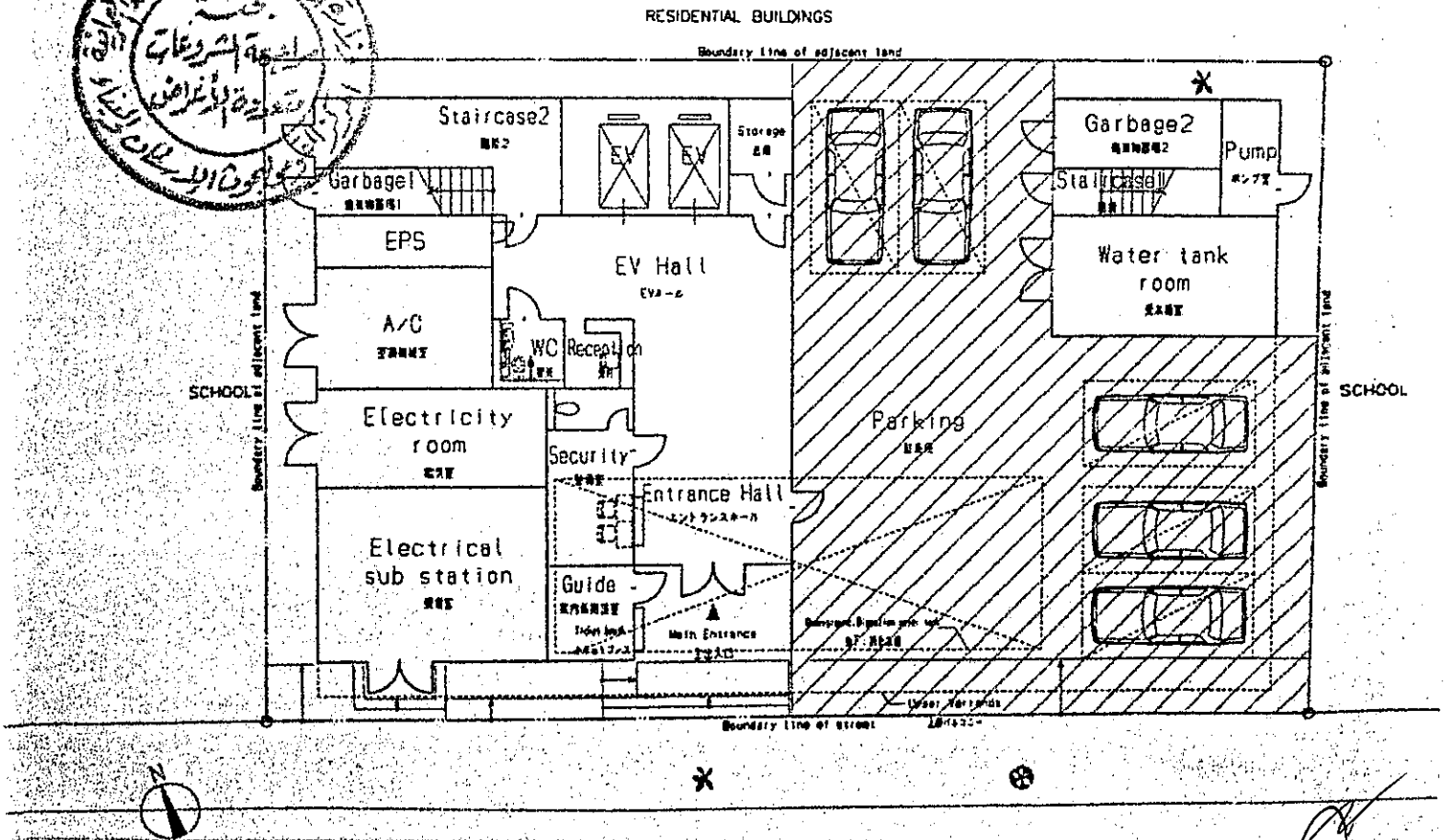
Vice President

Prof./ Naser Gamal Abd Elghafour
10/6/2014



مسطح الجراج لا يقل عن ٢٢٥٠ متر مربع
بدون محلات أو أي استعمالات أخرى.

2 2nd floor plan S=1/200



Proposal

Maamal EL-Baroud St.

1 1st floor plan S=1/200

Annex 8

جمهورية مصر العربية
رئاسة مجلس الوزراء
الأمين العام

عاجل للغاية

السيد الدكتور / زياد بهاء الدين
نائب رئيس مجلس الوزراء ووزير التعاون الدولى

تحية طيبة وبعد،،

أتشرف بالإحاطة أن المجلس الأعلى للتخطيط والتنمية العمرانية قرر بجلسته رقم (١٠) المنعقدة برئاسة السيد الدكتور حازم الببلاوى رئيس مجلس الوزراء بتاريخ ٢٠١٣/١٢/١٥ الموافقة على استثناء مشروع المبني الملحق بمستشفي الأطفال الجامعي التخصصي بأبو الريش- محافظة القاهرة من قيود الارتفاع.

رجاء التفضل بالنظر والتكرم بالتنبيه باتخاذ اللازم ، وقد تمت الكتابة بذلك إلى السيد المهندس وزير الطيران المدنى والسيد الدكتور محافظ القاهرة .

وتفضلوا بقبول فائق الاحترام ،،

أمين عام مجلس الوزراء

(لواء أ.ح/ عمرو عبد المنعم)

٢٠١٣ / ١٢ /

جمهورية مصر العربية
وزارة الإسكان والمجتمعات العمرانية
مكتب الوزير

الرقم البريدى ١١٥١٦

٧٠٢
١٢ ١٢ ٥

السيد اللواء أ. ح / عمرو عبد المنعم
أمين عام مجلس الوزراء

تحية طيبة وبعد . . .

أرجو أن أشير إلى كتاب سيادتكم رقم ٥- ١٦٠٢٧ بتاريخ ٢٠١٣/١١/١٨ المرفق به بيانا بالقرارات الصادرة عن اجتماع مجلس الوزراء رقم (١٦) المنعقد بتاريخ ٢٠١٣/١١/١٣ برئاسة السيد الاستاذ الدكتور / رئيس مجلس الوزراء ، والمتضمن القرار رقم ٥/١٣/١١/١٦ بالموافقة على استثناء مستشفى الأطفال الجامعى بابو الريش من قيود الارتفاع المسموح به بحيث يتم زيادة الارتفاع إلى ٣٦ مترا ، مع مراعاة استكمال موافقات وزراتى الإسكان والطيران المدنى.

وفى هذا الصدد اتشرف بان ارفق لسيادتكم طيه كتاب السيد الدكتور مهندس / رئيس مجلس إدارة الهيئة العامة للتخطيط العمرانى - رئيس الأمانة الفنية للمجلس الأعلى للتخطيط والتنمية العمرانية رقم ٦٥ بتاريخ ٢٠١٣/١٢/٢٤ والمتضمن بانه فى ضوء بحث ودراسة الموضوع باللجنة النوعية للتقييد اوالإعفاء من بعض او كل الاشتراطات البنائية والتخطيطية بمخططات المدن والقرى المنبثقة عن المجلس الأعلى للتخطيط والتنمية العمرانية بجلستها المنعقدة بتاريخ ٢٠١٣/٦/٥ ، تم الموافقة على استثناء المبنى من قيود الارتفاع ليكون ٣٦ متر من مستوى سطح الأرض على إن يتم الاتى :

- يراعى فى تصميم المبنى توفير اماكن انتظار لسد احتياجات المبنى المقترح بالإضافة الى تلبية الاحتياج الحالى لاماكن الانتظار لمبنى المستشفى القائم .
- تتولى المحافظة وضع مقترحات للحلول المرورية المناسبة لضمان سيولة الحركة بالمنطقة ككل .

فمن ثم أكون شاكراً تفضلكم بالإحاطه والتكرم بالتنبيه بما يلزم .

مع خالص إحترامى وتقديرى ، ، ،

وكيل أول الوزارة
المشرف على مكتب الوزير

مهندسة/

رانـــده المنشـــاوى

المجلس الأعلى للتخطيط
والتنمية العمرانية

السيدة المهندسة / راندا العنشاوى

رئيس القطاع – المشرف على مكتب السيد المهندس الوزير

تحية طيبة وبعد . . .

بالإشارة الى اجتماع مجلس الوزراء رقم (١٦) المنعقد بتاريخ ١٣/١١/ ٢٠١٣ برئاسة السيد الدكتور رئيس مجلس الوزراء والقرارات الصادرة عن الاجتماع المشار اليه .

أحيط سيادتكم علما بأن السيده المهندسه / رئيس الادارة المركزية للتعاون مع دول شرق اسيا بوزارة التعاون الدولى قد تقدمت بطلب استثناء مستشفى الاطفال الجامعى بابو الريش من قيود الارتفاع المسموح به ليصل الى ٣٦ متر وذلك فى اطار الجهود التى تبذلها وزارة التعاون الدولى لدفع تنفيذ المشروعات التنموية التى يتم تمويلها مع شركاء التنمية وان مشروع توسعات مستشفى الاطفال ابو الريش مزمع تحويله من الجانب اليابانى بقيمة ٢٠ مليون دولار امريكى باعتبار هذا المشروع من المشروعات الحيوية التى ستخدم قطاع الصحة وخاصة مع صعوبة قيام الجانب اليابانى بإعداد دراسة اخرى – مرفق .

تم دراسة الموضوع فى اللجنة النوعيه للتقييد اوالاعفاء من بعض او كل الاشتراطات البنائيه والتخطيطية بمخططات المدن والقرى المنبثقة عن المجلس الاعلى للتخطيط والتنمية العمرانية وتم عقد جلسته فى يوم الاربعاء الموافق ٥ يونيو ٢٠١٣ وتم الموافقة على استثناء المبنى من قيود الارتفاع ليكون ٣٦ متر من مستوى سطح الارض على ان :

١- يراعى فى تصميم المبنى توفير اماكن انتظار لسد احتياجات المبنى المقترح بالإضافة الى نلبية الاحتياج الحالى لاماكن الانتظار لمبنى المستشفى القائم .

٢- تتولى المحافظة وضع مقترحات للحلول المرورية المناسبة لضمان سيولة الحركة بالمنطقة ككل (مرفق).

وإبماءا الى اجتماع مجلس الوزراء رقم (١٦) بتاريخ ٢٠١٣/١١/١٣ تجدر الاشارة الى ان الموافقة على طلب استثناء المستشفى من قيود الارتفاع هو من اختصاص المجلس الاعلى للتخطيط والتنمية العمرانية .

وتفضلوا بقبول فائق الاحترام ، ، ،

رئيس مجلس الادارة

دكتور مهندس / عاصم الجزار

1 Ismail Abaza St, El Kasr El Eini- Cairo 11516 - Egypt
Tel.: +(202)27921520 / 21 Fax +(202) 27921512
E-mail:gopp2@idsc.net.eg

١ ش إسماعيل أباظة - القصر العينى - القاهرة ١١٥١٦ - مصر
تليفون ٢١٠ / ٢٧٩٢١٥٢٠ (٢٠٢)+ فاكس ٢٧٩٢١٥١٢ (٢٠٢)+

26 December 2013 / Strictly Confidential

PRIME MINISTRY OFFICE

Secretary-General

Dr. / Ziad Bahaa Eddin

Deputy Prime Minister and Minister of International Cooperation

I have the honor briefing you that the Supreme Council for Planning and Urban Development decided in its minutes session number (10) held under the chairmanship Dr. Hazem Beblawi Prime Minister on **December 15, 2013 to approve the height restrictions exception to the project**

" construction of out-patient clinics building to CUSPH ".

We have informed by written letters to Civil Aviation Minister and the Governor of Cairo

Secretary General of Prime Ministry

Brigade Amr Abdel Moneim

4 December 2013

Ministry of Housing and Urban Communities

Minister's Office

Major General Amr Abdel Moneim

Secretary General of the Prime Ministry

Refer to your letter No. 5-16-027 as of November 18, 2013 in which decisions issued by Prime Ministry No. (16) held on meeting on November 13, 2013 under the chairmanship of the Prime Minister, and included Resolution No. 16/11/13/5 approving the exception of the University Children's Hospital allowable height restrictions so that it is increasing the height to 36 meters, taking into consideration the completion of approvals from Housing ministry and the Ministry of Civil Aviation

In this regard, I have the honor to enclose to you a letter by the **President of Board of Directors of the General Authority for Urban Planning - Chairman of the Technical Secretariat of the Supreme Council for Planning and Urban Development** No. 65 dated December 24, 2013 and included that in the light of the research and study of the exception of heights issue , the Supreme Council for Planning and Urban Development on June 5, 2013 announces The approval of the exception of the building height restrictions to be 36 meters from the ground level.

Taken into consideration the following:

1. to provide in the building design a garage to fulfill the needs for parking spaces and to fulfill the current hospital building for parking space as well

2. Cairo governorate to develop proposals for appropriate solutions to traffic

First Undersecretary of the Ministry

The supervisor of the Office of the Minister

Randa engineer Minshawi

December 4, 2013

Supreme Council for Planning and Urban Development

Ms. Randa Minshawi

Chairman sector supervisor of the Office of the Minister –Housing Ministry

Referring to the meeting of Prime Ministry cabinet No. (16) held on November 13, 2013 under the chairmanship of the Prime Minister, and the decisions of the meeting referred to.

Inform you that Ms. / Chairman of the Central Administration of cooperation with the countries of East Asia, the Ministry of International Cooperation has applied for an exception of height restrictions up to 36 meters for Children's Hospital of Cairo University, and in the framework of the efforts made by the Ministry of International Cooperation to advance the implementation of development projects that are funded with development partners and the Children's Hospital expansion project planned funding from the Japanese side is worth 20 million U.S. dollars as this project of vital projects that will serve the health sector, especially with the difficulty of the Japanese side to prepare another study

The decision has been taken on Wednesday, June 5, 2013 and was approved on the exception of the building height restrictions to be 36 meters from ground level.

Taken into consideration the following:

1. to provide in the building design a garage to fulfill the needs for parking spaces and to fulfill the current hospital building for parking space as well

2. Cairo governorate to develop proposals for appropriate solutions to traffic

Chairman of the Board

Dr. Asim Gazzar

Supreme Council for Planning and Urban Development

صفايه / استاذه / نورا عاصم

Annex 9

Arab Republic Of Egypt
Ministry Of Civil Aviation
Egyptian Civil Aviation Authority

جمهورية مصر العربية
وزارة الطيران المدني
سلطة الطيران المدني المصري

الادارة المركزية لسلامة و مقاييس المطارات
الادارة العامة للارتفاق الجوي

نموذج (١٥)

ترخيص رقم (٢١٧)
تاريخ : ١٩/٥/٢٠١٤

السيد / رئيس حي السيدة زينب

تحية طيبة و بعد...

يرجى الاحاطة بأن سلطة الطيران المدني قد وافقت للسيد / مريم صبحه يوسف عن مستشفى الأطفال الجامعي التخصصي
على القيام بإجراء ارتفاع العقار الكائن في قطعة ٤ شارع معمل البارود السيدة زينب القاهرة
محافظة القاهرة
حتى // هبط ٦٤.٣١ م (اربعة و ستون متراً و واحد وثلاثون سنتيمتراً) // فوق سطح البحر.

ويشمل هذا الارتفاع أعلى جزء في المبنى سواء دورة السطح أو بئر السلم أو غرفة المصاعد أو خزانات المياه أو هوائيات و خلافة و يلغي هذا الترخيص اي ترخيص سابق اصداره للذات القطعة .

وحدد الموقع الموافق عليه باللون الاحمر على صورة الخريطة المرفقة و المعتمدة بخاتم شعار الجمهورية الخاص بوزارة الطيران المدني و قد تم التصريح بالارتفاع المذكور بناء على تحديد الموقع بالخريطة المعدة بمعرفة الحي و على مسئوليه على الخريطة المقدمة / طبقاً لشهادة الاحداثيات المرفقة بالطلب .

مع ضرورة الرجوع الي سلطة الطيران المدني المصري للحصول على ترخيص منها قبل الشروع في اجراء اية تعلية .

دراسة / [illegible] مراجعة / [illegible]
مدير ادارة التراخيص / [illegible] مدير عام الارتفاق الجوي / [illegible]
رئيس الادارة المركزية لسلامة و مقاييس المطارات / [illegible]
نائب رئيس السلطة لشئون قياسات سلامة المطارات والملاحة الجوية / [illegible]

تحذير: وفقا للمادة (١٧٤) من القانون ١٣٦ لسنة ٢٠١٠ بتعديل بعض أحكام قانون الطيران المدني يعاقب بالحبس مدة لا تقل عن سنة و بغرامة لا تقل عن ٢٠٠٠٠ جنيه ولا تجاوز مثلي قيمة الاعمال المخالفة كل من [illegible] المخالفة للترخيص الصادر عن سلطة الطيران المدني أو استانف أعمال بناء سبق وقفها بالطريق الإداري أو امتنع عن تنفيذ إزالتها في المدة المحددة و يعاقب بذات العقوبة المقاول الذي يقوم بالتنفيذ متى كانت الأعمال قد أقيمت بدون ترخيص من سلطة الطيران المدني أو بالمخالفة له ، كما يعاقب [illegible] المسئول بالجهة الإدارية المختصة بشئون التنظيم متى كان مشاركا في ارتكاب تلك المخالفات علما بأن مدة سريان الترخيص ثلاث سنوات من تاريخ صدوره.

٢٠١٤/٥/٢٠

طيار / محمود طه الزهاوي
رئيس سلطة الطيران المدني المصري

مبنى وزارة الطيران المدني – طريق المطار – القاهرة ت : ٢٢٦٧٧٩١٧ فاكس ٢٢٦٨٨٢٣٢
Ministry of Civil Aviation Complex, Airport Road, Cairo/Egypt – Tel 22677917Fax 22688232
Mail:ecaa@civilaviation.gov.eg

١٢٤

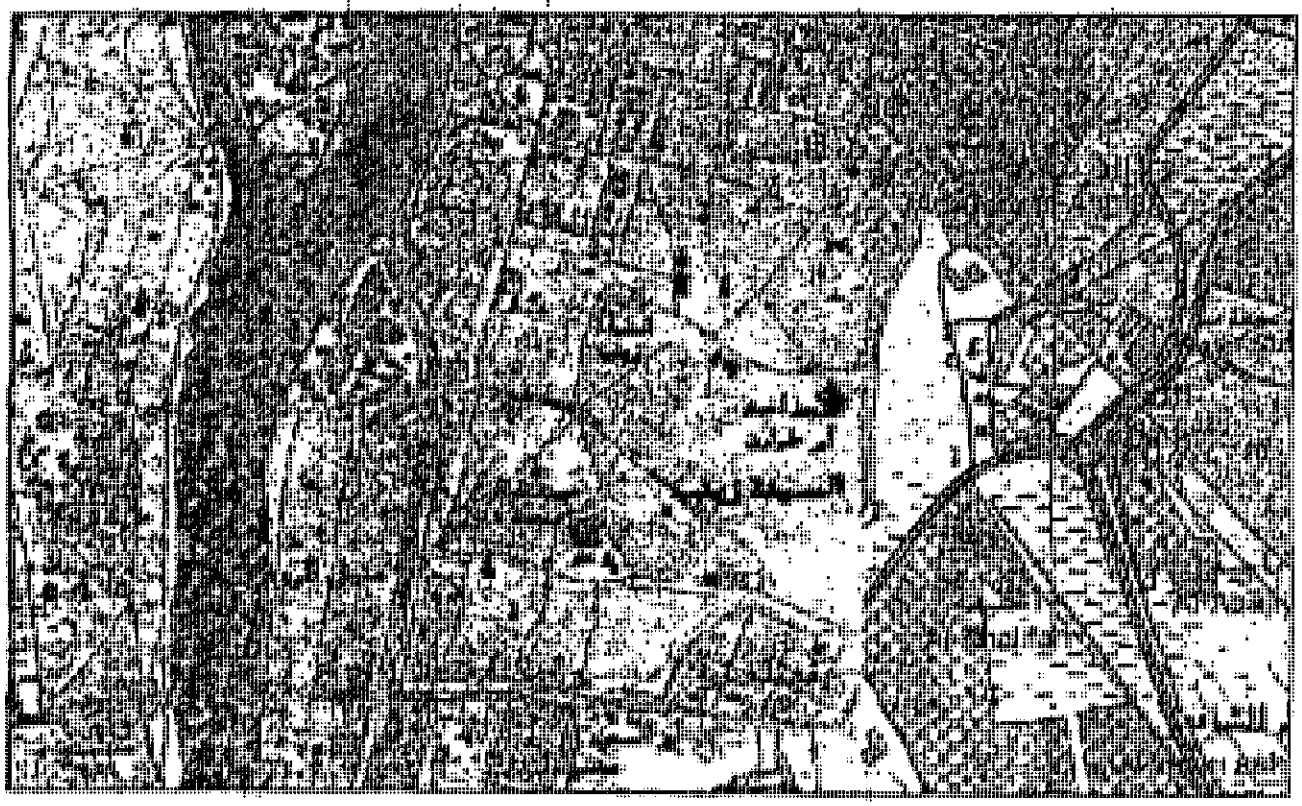
Arab Republic Of Egypt
Ministry Of Civil Aviation
Egyptian Civil Aviation Authority

جمهورية مصر العربية
وزارة الطيران المدني
سلطة الطيران المدني المصري

الادارة المركزية لسلامة و مقاييس المطارات
الادارة العامة للارتفاق الجوي

ترخيص رقم (٢٧٧١)
تاريخ : ٢١ / ٥ / ٢٠١٤

خريطة الموقع



أسم طالب الترخيص : مريم عبده يوسف عن مستشفى الاطفال الجامعي التخصصي
عنوان المنشأ : قطعة ٤ شارع ممثل البارود السيدة زينب القاهرة
الاحداثيات الشرقية للمنشأ ETM : 637572.162
الاحداثيات الشمالية للمنشأ ETM : 813040.076

منسوب أعلى نقطة في المبنى من سطح البحر : //النقط ٣١ ٦٤ م (أربعة و ستون متراً و واحد وثلاثون سنتيمتر) //

دراسة / م. حسين الخضري
مدير ادارة التراخيص / م. سعيد
رئيس الادارة المركزية لسلامة و مقاييس المطارات / م. سعيد
نائب رئيس السلطة لشئون قياسات سلامة المطارات

مراجعة / م. سعيد
مدير عام الارتفاق الجوي / م. سعيد

طيار / محمود طه الزناتي
رئيس سلطة الطيران المدني المصري

مبنى وزارة الطيران المدني – طريق المطار – القاهرة – ت: ٢٢٦٧٧٦١٥ فاكس ٢٢٦٨٨٢٣٢
Ministry of Civil Aviation Complex, Airport Road, Cairo/Egypt – Tel 22677617Fax 22688232
Mail:ecas@civilaviation.gov.eg

سرية العامة للمساحة
ة للجيوديسيا والحساب
ب الموازنية

شهادة منسوب للعقـــــارات

المنسوب	وصف العقار	قار
٢٣,٣١		

ك هذه الشهادة للسيد/ ..... بصفته .....

ن عن / لغيره / يمثلها /) .....

أدنى مسئولية قبل الهيئة علما بأنه لا يعتد بها كمستند للملكية والهيئة غير مسئولة عن أى حقوق للغير تترتب

وأى شهادة سابقة لذات القطعة تعتبر لاغية.

م رصد منسوب الأرض للعقار المذكور بعاليه ومنسوبه (

بعد سداد تكاليف الأصال بالقسيمة رقم ٤٨٦ مجموعة ٩٥٦ بتاريخ ٤ /٥/ ٢٠١٤ م

را فى ١١ / ٥ / ٢٠١٤ م

يعتمد،،،

الإدارة العامة للمساحة والحساب

License No. 2118

Date: May 21, 2014

Ministry of Civil Aviation

Egyptian Civil Aviation Authority

Central Administration standards for safety of airports

General Administration of Air easement

Mr. / Chairman of Sayeda Zeinab Municipality

Civil Aviation Authority approved to Cairo University Specialized Children's Hospital of making the height of the building, located in 4 Maamal Barood Street Sayeda Zeinab - Cairo, up to 64 meters and 31 centimeters height above the surface of the sea level.

This height includes the rise in the highest part of the building, whether it is surface of building or elevators room or water tanks etc.

on the attached map in this letter the location approved is in red color, stamped with official seal of Egypt Ministry of Civil Aviation

the height is approved on the responsibility of Sayeda Zeinab municipality which provided us with site map

signatures

research Study by: Heba Mahmoud

Reviewed by : Amin Nabil

Director of Licensing: Sahar Mustafa

Director General of Air easement: Sahar Mustafa

Head of Central Administration safety standards and airports ..

Deputy Head of the measurements for the safety of airports and air navigation: Khalid

Pilot / Mahmoud Taha Zinati

President of the Egyptian Civil Aviation Authority

****

attachments

*The second page: Site Map

**Third page:

Certificate of ground level

Address :4 maamal barood street – University Children's Hospital - Sayeda Zeinab - Cairo

The level of the ground 23 meters and 31 centimeters

Annex

جمهورية مصر العربية
وزارة التعليم العالي
الوزير

السيد الأستاذ الدكتور / جابر جاد نصار

رئيس جامعة القاهرة

تحية طيبة وبعد...

يطيب لي أن أبعث لسيادتكم بأصدق تحياتي، والحاقاً بكتابي المرسل لسيادتكم برقم ١٠٧٠م بتاريخ ٢٠١٣/١١/٢٤ والمتضمن أن مجلس الوزراء قرر بجلسته رقم (١٦) المنعقدة بتاريخ ٢٠١٣/١١/١٣ برئاسة السيد الأستاذ الدكتور حازم الببلاوي رئيس مجلس الوزراء الموافقة على استثناء مستشفى الأطفال الجامعي بأبو الريش بالجامعة من قيود الارتفاع المسموح به بحيث يتم زيادة الارتفاع إلى ٣٦ متراً، مع مراعاة استكمال موافقات وزارتي الإسكان والطيران المدني.

وكتابنا رقم ١٠٧٠م بتاريخ ٢٠١٤/١/٢٣ والمرفق به صورة ما ورد من السيد المهندس أمين عام هيئة الطيران بشأن إسناد مندوب لمركز خدمة العملاء بديوان عام الوزارة ومعه خريطة موضحاً عليها الموقع وشهادة بالمنسوب وذلك على نحو ما ورد بكتابه المذكور.

أتشرف بأن أرفق لسيادتكم مع هذا ما ورد من وزارة التعاون الدولي في هذا الشأن.

برجاء التفضل بالنظر والتوجيه باتخاذ ما ترونه سيادتكم لازماً ، مع خالص شكري وتقديري.

وتفضلوا سيادتكم بقبول فائق الاحترام،،

نائب رئيس الوزراء

ووزير التعليم العالي

(أ.د/ الحسام عيسى)

السيد/ مدير إدارة المستشفيات الجامعية

للتفضل باتخاذ اللازم

مع احترامي

Address: 101 El-Kasr Al-Eini st.- CAIRO
Phone : 27947834 - Fax : 27941605
Postal No.:11516

العنوان : ١٠١ شارع القصر العيني - القاهرة
تليفون : ٢٧٩٤٧٨٣٤ - فاكس : ٢٧٩٤١٦٠٥
الرقم البريدي : ١١٥١٦

Web site: www.egy-mhe.gov.eg info@egy-mhe.gov.eg E-mail:

Arab Republic of Egypt

Ministry of Higher Education

THE MINISTER

To Dr. Gabir Nassar

President of Cairo University

After my greetings,

Following my letter to you number 1070 dated 24 November 2013 which includes that the Cabinet in its session no.(16) dated 13 November 2013 headed by Dr. Hazim Al Biblawi, the Prime Minister issued an approval for excepting the CUSPH from height limits to be allowed to build up to 36 meter height with consideration to complete approval from Ministry of Civil aviation and Ministry of Housing.

Also following my letter to you number 1070 dated 23 November 2013 which includes the requirements from Ministry of Aviation , Secretary General of Ministry of Aviation requests a messenger to come to Ministry of Aviation and bring building site-map clarifying on it the land level certification.

I also attach in this letter the related document from Ministry of International cooperation and planning.

Kindly take action regarding the above mentioned subject.

Deputy Prime Minister

Higher Education Minister

Dr. Hosam Eissa

MINUTES OF DISCUSSIONS
PREPARATORY SURVEY
ON THE PROJECT FOR CONSTRUCTION OF OUTPATIENT FACILITY AT CAIRO UNIVERSITY SPECIALIZED PEDIATRIC HOSPITAL IN ARAB REPUBLIC OF EGYPT

In response to a request from the Government of Arab Republic of Egypt (hereinafter referred to as "Egypt"), the Government of Japan decided to conduct a Preparatory Survey on the Project for Construction of Outpatient Facility at Cairo University Specialized Pediatric Hospital (hereinafter referred to as "the Project") and entrusted the survey to the Japan International Cooperation Agency (hereinafter referred to as "JICA").

JICA sent to Egypt the Preparatory Survey Team (hereinafter referred to as "the Team"), which is headed by Mr. Yoshiharu Yoneyama, Deputy Director General, Human Development Department, and is scheduled to stay in the country from April 28 to May 15, 2014.

The Team held discussions with the officials concerned of the Government of Egypt and conducted a field survey at the survey area.

In the course of discussions and field survey, both parties confirmed the items described in the ATTACHMENT.

Cairo, May 13, 2014

米山 芳春

Mr. Yoshiharu Yoneyama
Leader
Preparatory Survey Team
Japan International Cooperation Agency
Japan

HUSSEIN KHAIRY

Dr. Hussein M. Khairy
Dean
Faculty of Medicine,
Cairo University
Arab Republic of Egypt

Witnessed by

Mona Ahmed

Ms. Mona S. Ahmed
Under Secretary of State-East Asia Affairs
Ministry of International Cooperation
Arab Republic of Egypt

NK

ATTACHMENT

1. Objective of the Project

The objective of the Project is to improve the service of outpatient clinic and training capacity at Cairo University Specialized Pediatric Hospital (hereinafter referred to as "CUSPH") in Egypt through the construction of an outpatient facility and procurement of equipment.

2. Project Site

The site of the Project is located at No.4, Maamal El-Barud St., El –Saieda Zeinab in Cairo, Egypt as shown in Annex-1.

3. Responsible and Implementing Agency

3-1. The Responsible Agency is the Ministry of Higher Education and Cairo University.

3-2. The Implementing Agency is the Faculty of Medicine, Cairo University and CUSPH.

4. Items Requested by the Government of Egypt

Through discussions with the Team, the Egyptian side requested following items.

(1) Construction of the outpatient facility: Plan and Section is shown in Annex-2.

(2) Procurement of Equipment: The Egyptian side will submit a medical equipment list necessary for the new outpatient building to the JICA Egypt Office by the end of May, 2014.

5. Japan's Grant Aid Scheme

5-1. The Egyptian side understood the Japan's Grant Aid Scheme, as described in Annex-3.

5-2. Both sides will take the necessary measures described in Annex-4 for smooth implementation of the Project, as a condition for the Japanese Grant Aid to be implemented.

6. Schedule of the Survey

If the Project is found feasible as a result of this survey, JICA will dispatch a mission for implementation of outline design of the Project by the middle of June, 2014.

7. Component of the Outpatient Facility

Both sides agreed that the components of the Outpatient Facility are to be the following, and as shown in Annex-5.

(1) Outpatient Clinics

Allergy, Arrhythmia, Catheterization, Cardiomyopathy, Cardiology, Chest, Collagen, Tropical, Genetic, Hepatitis, Immunology, Neurology, Post-Operative Cardiac Surgery, Rheumatic Fever

(2) Physiological Examinations

(3) Laboratory

(4) Radiology

(5) Rehabilitation

(6) Outpatient Pharmacy

(7) Seminar rooms

M-A HK

(8) Parking

(9) Outpatient Storage

(10) Administration

8.Other Relevant Issues

8-1. Title of the Project

Both sides agreed that the title of the Project shall be "Project for Construction of Outpatient Facility at Cairo University Specialized Pediatric Hospital".

8-2. Land Preparation

(1) The Japanese side confirmed that the Site was officially acquired by the Egyptian side on 24th June, 2009. However, some support beams and underground foundation had not been demolished yet. Therefore, the Egyptian side agreed to take necessary measures to complete the land preparation by December, 2015.

(2) The Egyptian side agreed on taking necessary measures to reinforce the existing wall around the land.

8-3. Special Permissions for Building Coverage and Height

(1) Special permissions regarding building coverage and height have already been officially issued; one hundred (100) % building coverage is permitted and height of thirty six (36) meters from road level is permitted as shown in Annex-6.

(2) The Egyptian side confirmed that these special permissions do not have an expiration date and that there is no need to update/re-acquire these permissions.

(3) The Egyptian side confirmed that special permission of the height of thirty six (36) meters from road surface level for outpatient facility construction was approved by the cabinet in December 2013, and that this special permission will be officially endorsed by the Ministry of Aviation and Ministry of Housing within one month.

8-4. Parking Space

Both sides confirmed that the parking space will be established on the ground floor of the building, and that the parking space for the outpatient facility construction meets the requirements of the latest Building Regulations (0.012m2×Total Floor Area), which was established by the Ministry of Housing.

8-5. Construction Permission for Outpatient facility

The Egyptian side will take necessary measures to obtain construction permission, based on the drawing for design reviewed by the Detail Design Study, for outpatient facility construction by December, 2015.

8-6. Plan for the CUSPH main building after Relocation of Outpatient Clinics

The Egyptian side explained their plans for the CUSPH main building after the relocation of outpatient clinics as follows:

(1) To increase the consultation days for surgical clinics.

(2) To renovate and increase the consultation rooms for surgical clinics to improve service environment (privacy and conformability).

M.A HK

8-7. Each Functions of CUSPH, Cairo University Children Hospital at Monira and Center for Social and Preventive Medicine (hereinafter referred to as "CSPM") under the Cairo University

The Egyptian side explained that CUSPH, Cairo University Children Hospital at Monira and CSPM form a medical complex providing comprehensive pediatric cares from primary to tertiary level to the populations, among others to the lower income people. Cairo University divides the roles and responsibilities among three facilities as follows:

(1) CSPM provides the preventive and curative services at primary level for mother and child.

(2) Cairo University Children Hospital at Monira provides the comprehensive pediatric services at secondary level.

(3) CUSPH provides pediatric services covering extensive sub-specialties at tertiary level.

The Egyptian side explained that Cairo University Children Hospital at Monira and CSPM also provide some sub-specialist services which should be originally at CUSPH and confirms that the Project will contribute to streamline the functions and improve the services not only at CUSPH but also Cairo University Children Hospital at Monira and CSPM.

8-8. Allocation of Additional Budget and Manpower

The Egyptian side understood that additional budget and manpower will be required for proper function of facilities and equipment to be provided by the Project upon completion. The Egyptian side agreed to secure and allocate necessary budget and staff to properly operate and maintain the facilities constructed and equipment provided by the Project.

8-9. Exemption of Tax

The Egyptian side understood that exemption of custom duties, internal taxes (including sales tax) and other fiscal levies which may be imposed in Egypt with respect to the purchase of products and services related to the Project must be ensured by the Egyptian government according to the approval of the concerned authorities. The Egyptian side confirmed that the responsible agency related to this issue is Ministry of Finance.

8-10. Recommendations

The Team recommended the Egyptian side to take necessary measures in order to attain the Project objective "To improve the outpatient services at CUSPH". Recommendations are:

(1) To allocate more medical doctors especially to the clinics which are chronically crowded, along with the building and equipment improvement by the Project.

(2) To arrange one or two medical staff at the reception to give quick check, in order to guide the new Outpatient Department patients to the appropriate specialties, to advise them where to go.

(3) To develop short and long term action plan for the facilities and services improvement in order to show the direction of the hospital development to all the stakeholders of the Faculty of Medicine, Cairo University.

(4) To provide the medical staff, especially younger physicians, nurses and technicians who work at the Outpatient Facility with opportunities to increase their skill and knowledge of pediatric and other medical fields.

(5) To take necessary measures to minimize the traffic of outpatient and staff between the CUSPH main building and the Outpatient Facility by adequate operation / management.

Annex-1: Site Map
Annex-2: Requested Facilities
Annex-3: Japan's Grant Aid Scheme
Annex-4: Major Undertakings to be taken by Each Government
Annex-5: Component of the Outpatient Facility
Annex-6: Special Permission for Building Height

Location Map

Annex-1

Annex-2

May 8
2nd request

The New OPC building

4 Clinics / Floor as agreed from previous meeting

1st Floor: (2 clinic)

Parking

Reception

- Physiotherapy
- Chest
- Allergy

P.S. Chest & Allergy are 1 clinic (alternating days)

2nd Floor (3 Clinics+ area of transfusion)

- Collagen
- Tropical
- Endocrinology
- Hematology
- Area for Blood Transfusion

P.S. Collagen & Tropical are 1 clinic (alternating days)

3rd Floor (3 clinics +2 investigation rooms)

- Cardiology
- Cardiomyopathy
- Arrhythmia
- Catheterization
- Post-operative follow up
- ECG
- Echo

4th Floor (3 Clinics + 3 investigation rooms)

- Neurology
- EEG
- EMG
- Genetics
- Genetics Lab
- Hepatology

5th Floor (3 clinics + Wound dressing room)

- Ophthalmology

- Squint
- Neurosurgery
- Cardiothoracic
- Wound dressing rooms

P.S. Neurosurgery & Cardiothoracic are 1 clinic (alternating days)

6th Floor (2 clinics + 2 Wound dressing rooms +Uro Lab +Piaster room)

- General & Plastic Surgery
- Urology
- Urology Lab: Urodynamics & Sonar
- Orthopedics
- Plaster room
- Wound dressing rooms

P.S. Urology & Orthopedics are 1 clinic (alternating days)

7th Floor (Investigations floor)

- Laboratory
- Radiology

Roof:

Air Conditioner Maintenance and Control Unit

P.S.

It is important to take care, that we will need also besides the clinic:

1. Ambulance Unit.
2. Central Sterilization Department.
3. Laundry
4. Outpatient Pharmacy
5. Waste Disposal Area.
6. Electro-Mechanical: room for Generator and Electric Power and 2 Engineering Workshop.
7. Oxygen Station
8. Administrative Department: Medical Director office, Administrative Director Office & Nursing Director Office& Engineer Office.
9. Change rooms for Nurses and Porters.
10. Statistics and Medical recording.
11. Medical Records Achieve.
12. Storage Department: 3 stores; 1 supplies, 1 materials & 1 medications.

Japan's Grant Aid Scheme

The Government of Japan (hereinafter referred to as "the GOJ") is implementing the organizational reforms to improve the quality of ODA operations, and as a part of this realignment, a new JICA law was entered into effect on October 1, 2008. Based on this law and the decision of the GOJ, JICA has become the executing agency of the Grant Aid for General Projects, for Fisheries and for Cultural Cooperation, etc.

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

1. Grant Aid Procedures

The Japanese Grant Aid is supplied through following procedures :

- Preparatory Survey
  - The Survey conducted by JICA
- Appraisal & Approval
  - -Appraisal by the GOJ and JICA, and Approval by the Japanese Cabinet
- Authority for Determining Implementation
  - -The Notes exchanged between the GOJ and a recipient country
- Grant Agreement (hereinafter referred to as "the G/A")
  - -Agreement concluded between JICA and a recipient country
- Implementation
  - -Implementation of the Project on the basis of the G/A

2. Preparatory Survey

(1) Contents of the Survey

The aim of the preparatory Survey is to provide a basic document necessary for the appraisal of the Project made by the GOJ and JICA. The contents of the Survey are as follows:

- Confirmation of the background, objectives, and benefits of the Project and also institutional capacity of relevant agencies of the recipient country necessary for the implementation of the Project.
- Evaluation of the appropriateness of the Project to be implemented under the Grant Aid Scheme from a technical, financial, social and economic point of view.
- Confirmation of items agreed between both parties concerning the basic concept of the Project.
- Preparation of a outline design of the Project.
- Estimation of costs of the Project.

The contents of the original request by the recipient country are not necessarily approved in their initial form as the contents of the Grant Aid project. The Outline Design of the Project is confirmed based on the guidelines of the Japan's Grant Aid scheme.

JICA requests the Government of the recipient country to take whatever measures necessary to achieve 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 of the recipient country which actually implements the Project. Therefore, the implementation of the Project is confirmed by all relevant organizations of the recipient country based on the Minutes of Discussions.

(2) Selection of Consultants

For smooth implementation of the Survey, JICA employs (a) registered consulting firm(s). JICA selects (a) firm(s) based on proposals submitted by interested firms.

(3) Result of the Survey

JICA reviews the Report on the results of the Survey and recommends the GOJ to appraise the implementation of the Project after confirming the appropriateness of the Project.

3. Japan's Grant Aid Scheme

(1) The E/N and the G/A

After the Project is approved by the Cabinet of Japan, the Exchange of Notes(hereinafter referred to as "the E/N") will be singed between the GOJ and the Government of the recipient country to make a pledge for assistance, which is followed by the conclusion of the G/A between JICA and the Government of the recipient country to define the necessary articles to implement the Project, such as payment conditions, responsibilities of the Government of the recipient country, and procurement conditions

(2) Selection of Consultants

In order to maintain technical consistency, the consulting firm(s) which conducted the Survey will be recommended by JICA to the recipient country to continue to work on the Project's implementation after the E/N and G/A.

(3) Eligible source country

Under the Japanese Grant Aid, in principle, Japanese products and services including transport or those of the recipient country are to be purchased. When JICA and the Government of the recipient country or its designated authority 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, constructing and procurement firms, and the prime consulting firm are limited to "Japanese nationals".

(4) Necessity of "Verification"

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

(5) Major undertakings to be taken by 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 Annex.

(6) "Proper Use"

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

(7) "Export and Re-export"

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

(8) Banking Arrangements (B/A)

a) The Government of the recipient country or its designated authority should open an account under the name of the Government of the recipient country in a bank in Japan (hereinafter referred to as "the Bank"). JICA 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 JICA under an Authorization to Pay (A/P) issued by the Government of the recipient country or its designated authority.

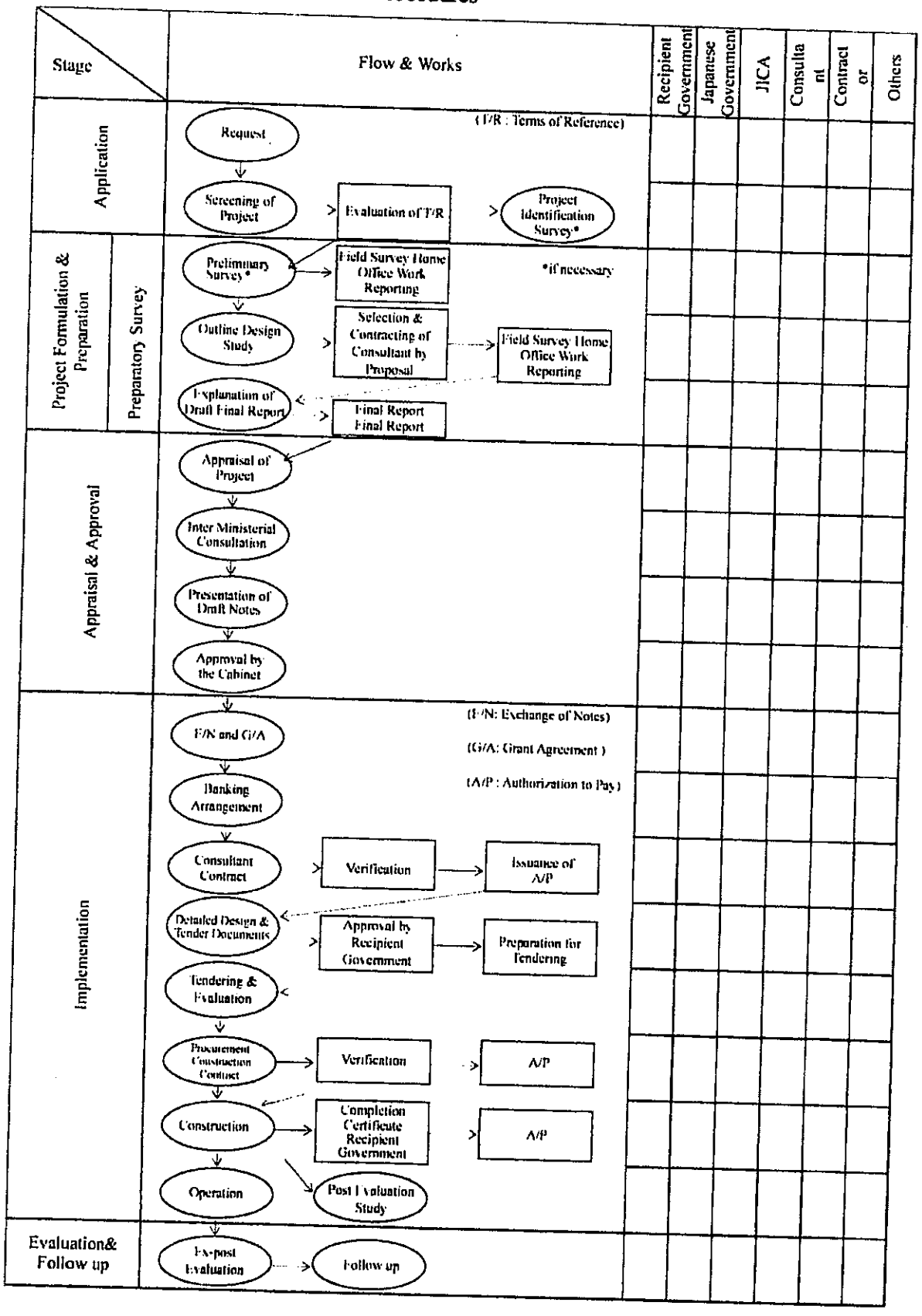
(9) Authorization to Pay (A/P)

The Government of the recipient country should bear an advising commission of an Authorization to Pay and payment commissions paid to the Bank.

(10) Social and Environmental Considerations

A recipient country must carefully consider social and environmental impacts by the Project and must comply with the environmental regulations of the recipient country and JICA socio-environmental guidelines.

4. Flow Chart of Japan's Grant Aid Procedures



Annex-4

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 a lot of land necessary for the implementation of the Project and to clear the sites		●
2	To construct the following facilities		
	1) The building	●	
	2) The gates and fences in and around the site		●
	3) The parking lot	●	
	4) The road within the site	●	
	5) The road outside the site		●
3	To provide facilities for distribution of electricity, water supply and drainage and other incidental facilities necessary for the implementation of the Project outside the sites		
	1) Electricity		
	a. The distributing power 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, common 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	●	
4	To ensure prompt customs clearance of the products and to assist internal transportation of the products in the 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	(●)	(●)
5	To ensure that customs duties, internal taxes and other fiscal levies which may be imposed in the recipient country with respect to the purchase of the products and the services be exempted.(According to the approval of the concerned authorities)		●
6	To accord Japanese nationals whose services may be required in connection with the supply of the products and the services such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work		●
7	To ensure that the facilities and the products be maintained and used properly and effectively for the implementation of the Project		●
8	To bear all the expenses, other than those covered by the Grant, necessary for the implementation of the Project		●
9	To bear the following commissions paid to the Japanese bank for banking services based upon the B/A		
	1) Advising commission of A/P		●
	2) Payment commission		●

(B/A : Banking Arrangement, A/P : Authorization to pay)

ANNEX-5

The OPD facility

11 May,2014

<Principles>

1. Should select internal medicine pediatrics (not surgery) according to the last MM,
2. If 'alternating days' count '0.5 dept.',
3. Should include training function according to the last MM.

1st floor

- Parking
- Reception
- OPD pharmacy
- Physiotherapy
- Electro-mechanical room for generator…

2nd floor

- Radiology
- Laboratory

3rd floor

- Chest/allergy
- Collagen/(tropical)

4th floor

- Neurology
- EEG, EMG

5th floor (cardiac center)

- Cardiology/catheterization
- Cardiomyopathy
- Arrhythmia
- Post. Op. cardiac
- Rheumatic fever
- ECG, Ultrasound (cardiac)

6th floor

- Genetic
- Genetic Labo
- Hepatitis
- Immunology
- OPD storage dept./stores/supplies/materials

7th floor

- Administrative dept. /offices
- Training and Meeting Room

Annex-6

ARAB REPUBLIC OF EGYPT
MINISTRY OF PLANNING AND INTERNATIONAL COOPERATION
ASIAN COOPERATION SECTOR

وزارة التعاون الدولي
قطاع التعاون الاسيوى
صادر رقم ١٢٩٧ مرفقات
التاريخ ٢٠١٣/١١/٢١

Mr. Uyichi OBA,
Economic Counsellor,
Embassy of Japan,
Cairo.

November , 2013

Dear Mr. OBA,

It gives us great pleasure to cooperate with your team in the coming period for consolidating the cordial relations between Egypt and Japan.

In the meanwhile, we would like to refer to the **Project of Out-Patient Facility at Cairo University Specialized Pediatric Hospital (CUSPH)** requested to be financed through Japanese Grant-Aid Scheme.

In this regard, we have the pleasure to convey to you the approval of the Egyptian Cabinet on the height of 36 meter of the hospital building to match the design carried previously by the Japanese side.

You are kindly requested to convey this matter to the Japanese concerned authority, and we are looking forward to receive the draft of the EN of the expected grant as soon as possible.

While thanking your continuous cooperation, Please accept my best regards.

For/ Sincerely Yours;
Sami Barakat
(Mona Ahmed)
Under Secretary of State
East Asian Department

C.C.: Mr. Hideki MATSUNAGA,
Chief Representative,
JICA Egypt Office.

وزارة التعاون الدولي
قطاع التعاون الاسيوى
صادر رقم ١٢٩٨ مرفقات
التاريخ ٢٠١٣/١١/٢١

21/11/2013
Page 1 of 1

approved for

M.A MF

MEMORANDUM
FOR
THE PROJECT FOR CONSTRUCTION OF OUTPATIENT FACILITY AT CAIRO UNIVERSITY SPECIALIZED PEDIATRIC HOSPITAL IN ARAB REPUBLIC OF EGYPT

June 26, 2014

Through talks between the Government of Arab Republic of Egypt and the JICA Preparatory Survey Team, and the Minutes of Discussion signed by both parties on June 25th, 2014, both parties have further confirmed the issues concerning The Project for Construction of Outpatient Facility at Cairo University Specialized Pediatric Hospital in Arab Republic of Egypt as follows:

1. Contents of Building Components

1) 1st Floor:
Entrance Hall, Reception, Secrity Room, Telephone operator Room, Guide Room, Toilet ,Parking, Electrical Sub Station, Electricity Room, Water Tank Room, etc.

2) 2nd Floor:
Physiotherapy Department, Laboratory(Biochemistry,Hematology) Department, Waiting hall, Ticket Room, Toilet, etc.

3) 3rd Floor:
Radiology Department (X-Ray,Abdominal Ultrasound), Clinic1(Chest/Allergy), Clinic2(Collagen Vascular/ Immunology), Waiting hall, Waiting Room,Toilet, etc.

4) 4th Floor:
Clinic1(Neuro Metabolic/Neuro Muscular/ICU Discharged/NICU Discharged), Clinic2(Genaral Neurology), EEG, EMG, Waiting hall ,Toilet, etc.

5) 5th Floor:
Clinic1(General Cardiology), Clinic2(Post. Operative Cardiac Surgery), Clinic3(Pre-Catheterize/ Post-Catheterize/Follow up), Clinic4 (Cardiomyopathy/Arrhythmia), Clinic5(Rheumatic fever), Laboratory 1(Echocardigraphy), Laboratory2(ECG), Waiting hall ,Toilet, etc.

6) 6th Floor:
Clinic1(Hepatology/Tropical), Clinic2(Genetic), Genetic Laboratory, Waiting hall, Toilet, etc.

7) 7th Floor:
Training Room , OPD Pharmacy, Pharmacy Stock, OPD Storage, Administrative dept. /Offices, Toilet, etc.

H.F.

8) RF

Cleaning Department, Laundry Department, Generator Room, etc.

9) Building Structure

The structure of the Out Patient Facility buildings will be determined by the Consultants after the analysis of data in Japan according to the building volume, usage and the condition of the construction site.

10) Mechanical/Electrical Component

Each mechanical and electrical component of the Out Patient Facility buildings will be determined by the Consultants after the analysis of data in Japan.

2. Equipment Plan

After discussions with the Team, the Egyptian side reconfirmed the items with priority for Equipment described in Annex-1.

3. Confirmation Item

(1) The Egyptian side agreed to implement the Training program described in Annex-2 after starting the operation of the Outpatient Facility Building.

(2) The Egyptian side agreed to operate by attached human resources for the Outpatient Facility described in Annex-3.

(3) The Egyptian side agreed to operate the Outpatient Department in accordance with the organization diagram described in Annex-4.

(4) The Egyptian side agreed to operate the Outpatient Department in accordance with the tariff chart for new outpatient facility described in Annex-5.

(5) The Japanese side proposed attached management improvement for better quality services described in Annex-6, and the Egyptian side agreed to consider for implementation.

(6) Both side agreed evaluation indicators for measuring outcome of this project described in Annex-7.

Mr. Kazuyuki OTSUBO
Project Manager / Architect
Consortium of NIHON SEKKEI, INC.
and BINKO INTERNATIONAL LTD

Dr. Hala FOUAD
Director of Cairo University Specialized
Pediatric Hospital

Code No.	Name of Department	Description in English	priority	Planned Qty
1	Outpatient consultation	Examining table	A	47
2	Outpatient consultation	Examining Lamp incandescent	A	13
3	Outpatient consultation	Instrument cabinet	A	13
4	Outpatient consultation	Foot step , 2 steps	C	0
5	Outpatient consultation	Film illuminator (2 Screen)	A	13
6	Outpatient consultation	Sphygmomanometer, Stand type for Pediatric	C	0
7	Outpatient consultation	Stethoscope for pediatric	C	0
8	Outpatient consultation	Weighing scale for infant	A	13
9	Outpatient consultation	Height scale for child	A	13
10	Outpatient consultation	Weighing scale for child	A	13
11	Outpatient consultation	Otoscope	A	2
12	Outpatient consultation	Ophthalmoscope	C	0
13	Outpatient consultation	Oxygen humidifier	C	0
14	Outpatient consultation	Ultrasonic Nebulizer	A	1
15	Radiology	Fluoroscopy system	C	0
16	Radiology	CT scan	C	0
17	Radiology	X-ray unit	A	1
18	Radiology	CR unit	A	1
19	Radiology	Image Printer	A	1
20	Pharmacy	Medicine cabinet	A	4
21	Pharmacy	Instrument cabinet	A	4
22	Pharmacy/clinics	Medical refrigerator	A	5
23	Pharmacy	Rack	A	2
24	Physiotherapy	Muscle stimulator / Faradic 4 channels	A	1
25	Physiotherapy	Ultra sound therapy unit	A	1
26	Physiotherapy	Electric adjusted plinth sling suspension therapy	B	1
27	Physiotherapy	Biofeedback	B	3
28	Physiotherapy	Incentive spirometer	C	0
29	Physiotherapy	Neonatal vibrator	C	0
30	Physiotherapy	Spirometry	A	1
31	Physiotherapy	Matts, rolls, wedges, balls	A	1
32	Physiotherapy	Whirlpool bath	A	2
33	Physiotherapy	Wall bars	A	1
34	Physiotherapy	Parallel bar	A	1
35	Physiotherapy	Conductive education; Cubs	A	1
36	Physiotherapy	Conductive education; Bicycles	A	1
37	Physiotherapy	Standing table	A	1
38	Physiotherapy	Sitting table	A	1
39	Physiotherapy	Balancing table	A	1
40	Neurology Unit	EEG machine	A	1
41	Neurology Unit	EMG machine	A	1
42	Neuro metabolic / molecular	Liquid chromatography/Tandem mass spectrometry (Micromass)	A	1
43	Neuro metabolic / molecular	Plate Puncher	A	1
44	Neuro metabolic / molecular	Thermo plate shaker	A	1
45	Neuro metabolic / molecular	Weight(4 digits)	A	0
46	Neuro metabolic / molecular	Cooling Centrifuges (wasserman /falcon tubes)	C	0
47	Neuro metabolic / molecular	Eppendorf centrifuge	C	0
48	Neuro metabolic / molecular	Water bath	C	0
49	Neuro metabolic / molecular	Fumehood	A	1
50	Neuro metabolic / molecular	lab fridge(-80 C)	A	1
51	Neuro metabolic / molecular	lab Fridges (-20C)	C	0
52	Neuro metabolic / molecular	lab fridges (2-8 C)	C	0
53	Neuro metabolic / molecular	Water filtration system	C	0
54	Neuro metabolic / molecular	Lab computer system	C	0
55	Training center	Audio Sound System	C	0
56	Training center	Central venous line simulator	A	3
57	Training center	Intra muscular injection simulator	A	3
58	Training center	Peripheral catheter simulator	A	3
59	Training center	I O (infant Intra - Osseous simulator)	A	3
60	Training center	CPR Neonatal simulator	A	3
61	Training center	Umbilical catheter simulator	A	3
62	Training center	Intubations simulator (Pediatric)	A	3
63	Training center	Intubations simulator (Neonatal)	A	3
64	Training center	CPR Pediatric simulator	A	3
65	Training center	Training Tables	A	6
66	Training center	Chair (for training table)	A	36
67	Training center	White board for lecture room	C	0
68	Training center	Wall mount projector	A	1
69	Training center	Projector	A	1
70	Training center	Projector screen	A	1
71	Training center	Instrument cabinet	A	1
72	Training center	Medicine cabinet	A	1
73	Training center	Hand scrub	C	0
74	Training center	Emergency cart	A	1
75	Hematology Unit	5 part automated cell counter with immature cell compartment quantitation	A	1
76	Hematology Unit	Automatedd coagulation analyzer	B	1

H.F.

Code No.	Name of Department	Description in English	priority	Planned Qty
77	Hematology Unit	Research quality binocular microscope	A	1
78	Hematology Unit	Incubator	A	1
79	Hematology Unit	Centrifuge	A	2
80	Hematology /Chemistry/Bacteriology U	Two door reagent Refrigerator with lock	A	3
81	Hematology/Bacteriology/Chemistry U	Refrigerator with freezer and lock	A	3
82	Immunology Unit	Bench top Automated immunology analyzer (TORCH and Hepatitis tests)	A	1
83	Immunology Unit	Fluorescent microscope	B	1
84	Immunology Unit	Binocular light microscope	A	1
85	Immunology Unit	ELISA Microplate reader & washer	A	1
86	Immunology Unit	Nephelometer	C	0
87	Bacteriology Unit	VITEC(automated identification and sensitivity system)	C	0
88	Bacteriology Unit	Automated blood culture system for T.B	A	1
89	Bacteriology Unit	Automated blood culture system	A	1
90	Bacteriology Unit	Laminar flow cabinet (class 2)	A	1
91	Bacteriology Unit	Laminar flow cabinet (class 3)	C	0
92	Bacteriology Unit	Binocular Microscope	A	2
93	Bacteriology Unit	Balance (sensitive balance digital)	C	0
94	Bacteriology Unit	Autoclave (bench top)	C	0
95	Bacteriology Unit	Incubator	C	0
96	Bacteriology Unit	Centrifuge	C	0
97	Bacteriology Unit	Incinerator	C	0
98	Bacteriology Unit	-80°C Freezer	A	1
101	Bacteriology Unit	Hemocytometer	A	2
102	Clinical Chemistry Unit	Discrete, random access, fully automated chemistry analyzer with STAT capabilities	A	1
103	Clinical Chemistry Unit	Fully automated electrolyte analyzer with built in numercial display and thermal	A	1
104	Arrhythmia clinic	Head tilt table	A	1
105	Cardiomyopathy	High signal averaging ECG	A	1
106	Cardiomyopathy	Holter unit(analyzer)	A	2
107	Cardiomyopathy	Holter reader	A	4
108	Cardiomyopathy	Echo machine	C	0
109	Cardiomyopathy	Non-invasive monitor for Heart Rate (HR), Blood Pressure (BP) and saturation	A	1
110	Echo Lab	Echo machine	A	2
111	Echo Lab	Non-invasive monitor for HR, BP and saturation	C	0
112	General cardiology	Non-invasive monitor for HR, BP and saturation	A	1
113	Post operative	Echo machine	A	1
114	Post operative	ECG	C	0
115	Post operative	Non-invasive monitor for HR, BP and saturation	A	1
116	Service	Non-invasive monitor for HR, BP and saturation	C	0
117	Service	ECG	A	2
118	Service	Ambulatory blood pressure measurement	C	0
119	Service	Exercise test (Treadill)	A	1
120	Service	Non-invasive monitor for HR, BP and saturation	A	1
121	Service	Stress ECG	C	0
122	Pre-catheterize	Echo machine	C	0
123	Pre-catheterize	ECG	C	0
124	Pre-catheterize	Non-invasive monitor for HR, BP and saturation	A	1
125	Clinical genetics	Desk, Bed, Computer with internet and genetics diagnosis software (London Dysmorphology database, Oxford database), X-ray lamp.	C	0
126	Clinical genetics	Scales for height, weight, span and BMI for pediatric and adult age groups (calibrated).	C	0
		Wall mount scale for height and span for photographing the cases.	C	0
		Digital photography (High Definition Digital Camera with wide angle lens ring flash and professional tripod).	C	0
127	Clinical genetics	Computer (server) with software for patient data, medical sheet, investigations, follow up.	C	0
		Scanner and printer.	C	0
		Medical secretary for archiving, reporting, filing and scanning.	C	0
128	Clinical genetics	Emery text book, Smith recognizable pattern of human malformation.	C	0
		Genetics in medicine, ACMG.	C	0
129	Clinical genetics	Proper reclining chair with arm rest, bed, storage unit for sampling equipment.	C	0

A : Giving High Priority, and multiple benefit for improvement of medical services at New outpatient facility.
B : Confirmed the necessity, but further survey & analysis is needed.
C : Not consider under this project.
* Quantity listed above might be changed at futher domestic analysis in Japann.

H.F.

TRAINING PLAN FOR NEW OUTPATIENT FACILITY

CLINIC	COURSE	DURATION	FREQUENCY	TRAINEE
Cardiology Dep. Including cardiology, cardiomyopathy, arrhythmia, rheumatic fever	Meeting	1 day	Weekly Monthly Quarterly Once in a half year, Yearly	Visitors, House residents, residents / own outsiders
	Meeting with cardiac surgery team for difficult cases	1 day	Monthly	
	Mortality meeting(2 cases)	1 day	Monthly	
Emergency	Pediatric emergency workshop	2 days	6 times a year	
	Mechanical ventilation course	2 days	4 times a year	
Allergy	Case presentation	1 day	Monthly	
Chest	Case presentation	1 day	Monthly	
Collagen	Case presentation	1 day	Monthly	
Tropical	Case presentation	1 day	Monthly	
Genetics	Case presentation	1 day	Monthly	
Immunology	Case presentation	1 day	Weekly	
Neurology	Case presentation	1 day	Monthly	
Hepatology	Case presentation	1 day	Monthly	

H.F.

HR Plan for New OPD Facility (Additional staffs)

Outpatient Facility - Staffing schedule by department/unity unit

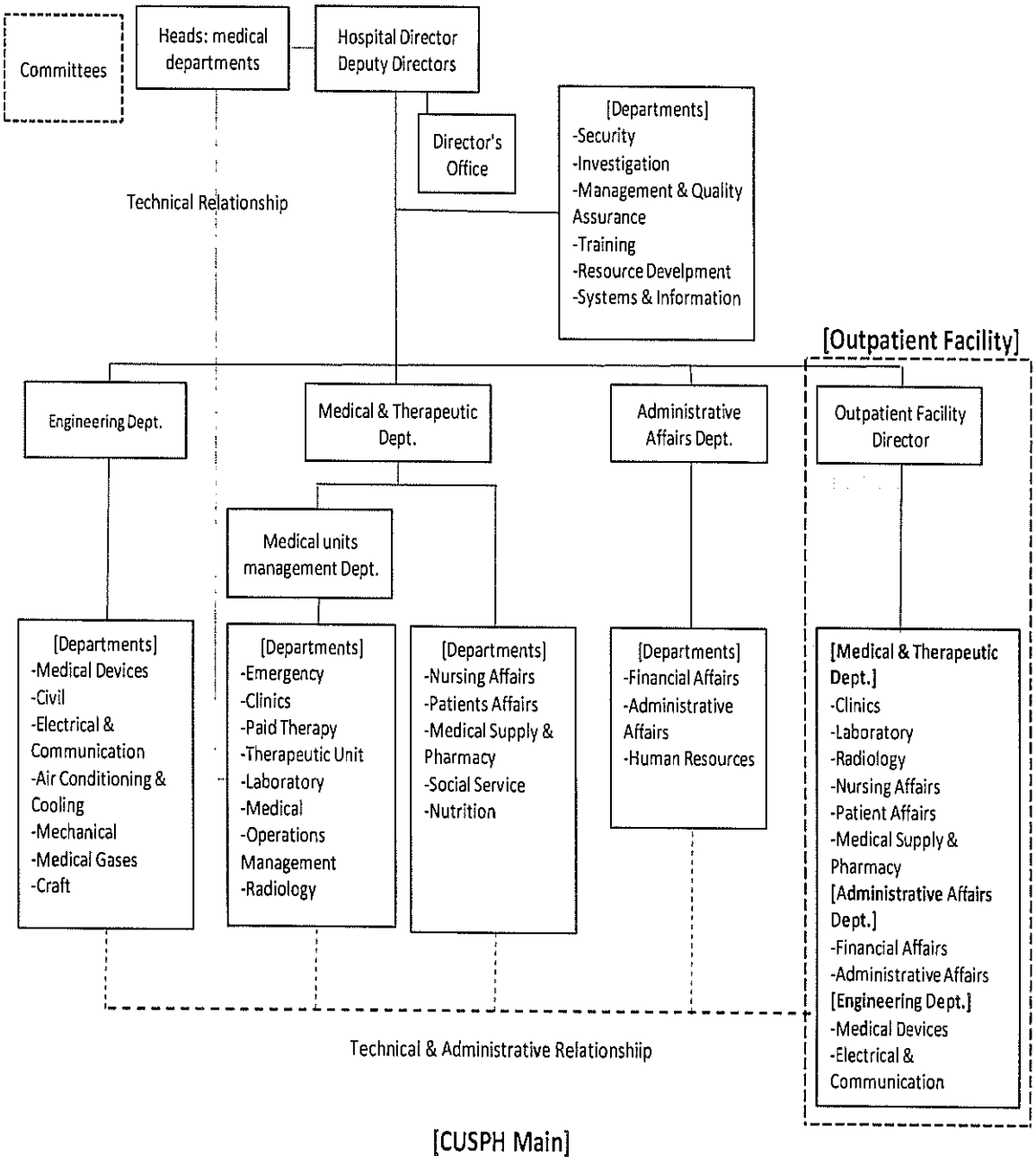
(a) Administration and services staff

Department		Director	Staff
Common	QA, Training, Information, etc	1	1
Administrative Affairs Dept.	Financial Affairs	1	1
	Administrative Affairs		1
	Human Resouces		1
Engineering Dept.	Medical Devices		1
	Electric & Communication	1	1
	Security guard		16
	Sweeper		22
Total		3	44

(b) Medical service departments

Specialty	Days/w	Physician			Nurse	Technician	Clerk & Others	Total
		Faculty	Resident	Contract				
Cardiology	6				2			2
Neurology	5							
Neuro ICU discharged	1	1			1			2
Neuro NICU discharged	1	1			1			2
EEG, EMG	5				2			2
Radiology (X-ray)	6	1				2		3
Laboratory	6	4	3			4	3	14
Physiotherapy	6					3		3
Medical Supply & Pharmacy	6			2			1	3
Total	-	7	3	2	6	9	4	31

Annex-4


Committees
Heads: medical departments
Hospital Director
Deputy Directors
Director's Office
[Departments]
-Security
-Investigation
-Management & Quality Assurance
-Training
-Resource Develpment
-Systems & Information
Technical Relationship
[Outpatient Facility]
Engineering Dept.
Medical & Therapeutic Dept.
Administrative Affairs Dept.
Outpatient Facility Director
Medical units management Dept.
[Departments]
-Medical Devices
-Civil
-Electrical & Communication
-Air Conditioning & Cooling
-Mechanical
-Medical Gases
-Craft
[Departments]
-Emergency
-Clinics
-Paid Therapy
-Therapeutic Unit
-Laboratory
-Medical
-Operations Management
-Radiology
[Departments]
-Nursing Affairs
-Patients Affairs
-Medical Supply & Pharmacy
-Social Service
-Nutrition
[Departments]
-Financial Affairs
-Administrative Affairs
-Human Resources
[Medical & Therapeutic Dept.]
-Clinics
-Laboratory
-Radiology
-Nursing Affairs
-Patient Affairs
-Medical Supply & Pharmacy
[Administrative Affairs Dept.]
-Financial Affairs
-Administrative Affairs
[Engineering Dept.]
-Medical Devices
-Electrical & Communication
Technical & Administrative Relationshiip
[CUSPH Main]

H. F.

Tariff chart for new outpatient facility

(unit: EL)

Tariff	
Examination	Fee
Echo	65
EEG	60
EMG	90
ECG	50
Abdominal ultrasound	45
Abdominla X-ray	20
Chest X-ray	16
Tandem mass spectrometry	240

Data source: result of hearing at site (June 2014)

- For the laboratory investigation, tariff depends on the parameters.

H.F.

Improvement for management

Following table shows patient number per floor/day. In order to reduce congestion at each floor, some measures need to be taken.

The table of estimated number of Outpatients at each floor at New outpatient facility

Floor	Specialty	Consultation days / week	No. of OP / each day of the week							No. of OP / each floor (Day)							No. of OP at each floor / each day of the week							The total No. of OP at each floor /
			Mo	Tue	Wed	Thu	Fri	Sat	Su	Mo	Tue	Wed	Thu	Fri	Sat	Sun	Mo	Tue	Wed	Thu	Fri	Sat	Sun	
2	Physiotherapy & Rehabilitatio	3		45				45	45		45				45	45		2,250				2,250	2,250	6,750
3	Allergy	3	40		40			40		89	22	89	22		89	46	4,450	1,100	4,450	1,100		4,450	2,300	17,850
	Chest	3		22		22			22															
	Collagen Vascular	3	49		49			49																
	Immunology	1							24															
4	Neurology	5	73	73	73	73			73	84	84	84	73		91		4,200	4,200	4,200	3,650		4,650		20,800
	Neuro muscular disorder	1							7															
	Neuro metabolic disorder	4	11	11	11				11															
5	Cardiology	6	23	23	23	23		23	23	66	44	102	44		23	82	3,300	2,200	5,100	2,200		1,150	4,100	18,050
	Catheterization (Pre / Post)	1							38															
	Post-Operative cardiac surgery	1			30																			
	Rheumatic Fever	5	21	21	21	21			21															
	Cardiomyopathy	1	22																					
	Arrhythmia	1			28																			
6	Tropical	3		18		18			18	74	47	74	47		74	47	3,700	2,350	3,700	2,350		3,700	2,350	18,150
	Genetics	6	29	29	29	29		29	29															
	Hepatology	3	45		45			45																

※ OP Outpatients
※ Year 50 weeks

Dept.	Clinic day (Current)	Measures for improvement
Neurology	Mon・Tue・Wed・Sun	Clinic 1 starts from 8:00-12:00, and another clinic starts from 10:00-15:00.
Collagen	Mon・Wed・Sat	Expands their activities for Tue. &Thr.
Post-ope	Wed	Clinic hours from 12:00-17:00

Training for 5S-KAIZEN-TQM

- It is recommendable that new hospital administration would be trained by above training course provided by JICA.

Evaluation Indicators

A) Training : The number of training/seminar at multipurpose room of New outpatient facility.

B) Improvement in function of diagnostic : Increase in number of medical examination.

Ex: The number of Examination below;

-X-ray

-Echo

-Bio chemistry

-Hematology

-EEG

The new examination will be offerd to outpatients to detect their disease.

(quick detection of TB virus by automated blood culture system)

C) Reduction of congestion at : The number of outpatients devided per area by floor space.

(Exsisting CUSHP=1,000M^2, New outpatient facility=3,500M^2)

4.F.

MEMORANDUM

FOR

THE PROJECT FOR CONSTRUCTION OF OUTPATIENT FACILITY AT CAIRO UNIVERSITY SPECIALIZED PEDIATRIC HOSPITAL IN ARAB REPUBLIC OF EGYPT

June 26, 2014

Through talks between the Government of Arab Republic of Egypt and the JICA Preparatory Survey Team, and the Minutes of Discussion signed by both parties on June 25th, 2014, both parties have further confirmed the issues concerning The Project for Construction of Outpatient Facility at Cairo University Specialized Pediatric Hospital in Arab Republic of Egypt as follows.

1. Confirmation Item

(1) Both sides confirmed Mechanical and Electrical system described in Annex-1.

Mr. Kazuyuki OTSUBO
Project Manager / Architect
Consortium of NIHON SEKKEI, INC.
and BINKO INTERNATIONAL LTD

Dr. Hala FOUAD
Director of Cairo University Specialized
Pediatric Hospital

■ Mechanical Plan

1-1 Design Policy

There are concepts as the design policy as follows;

- **Safe and stable system** to keep on hospital function at infrastructure not working
- **Keep cleanness and prevent infection system** by keeping air balance and considering exhaust location of special exhaust.
- **Simple system** for keeping easy maintenance
- **Save energy system** by heat load control with minimum outdoor fresh air intake and heat insulation.

1-2 Relevant Laws and Regulations of Mechanical System

Basically, the building or system design should comply with domestic the laws and regulations. Otherwise, Japanese or International laws and regulations will apply in arbitrarily as necessary

- Egyptian Building Code
- Egyptian Air conditioning Code
- Egyptian Plumbing Code
- Egyptian Fire fighting Code
- Other Egyptian Code
- JIS: Japanese Standards

1-3 Outline of Mechanical System

1) Water Supply System

Water city pipe line is installed underground of the road in front of CUSPH. City water pipe is 600 mm and water pressure is 3.5 bar, so enough capacity to intake to CUSPH.

Considering for easy maintenance of building and keeping hospital function, water supply system will be supplied by gravity system with water tank, water riser pumps and gravity tank.

City water will be lead to the water tank, and will be risen to gravity tank located on the roof by 2 lift pumps.

On upper 2 floors, water pressure from gravity tank will be weak. Therefore, booster pumps will be installed on the roof for increase of water pressure of upper 2 floors.

The separator inside water tank and gravity tank will be installed for prevention of water supply shortage at cleaning of tank

Capacity of water tank will be a day consumption quantity.

About Water Softener, it was recommended that it should be necessary to be installed in water supply system. According to water quality by discussion with water supply company, it is conceivable that there is no problem about water quality. However, there is a possibility of necessity of Water Softener installation, because water quality may be getting worse by damaged water supply pipes from water company, even if there will be no problem in water quality. According to discussion of Water Softener installation as above, water quality in the

current hospital will be checked by JAPAN side, and necessity Water Softener installation will be decided according to results of water quality.

2) **Hot Water Supply System**

Hot water will be supplied to minimum requirement in CUSPH. Individual electric water heater will be provided for hot water requirement.

3) **Sewage Water System**

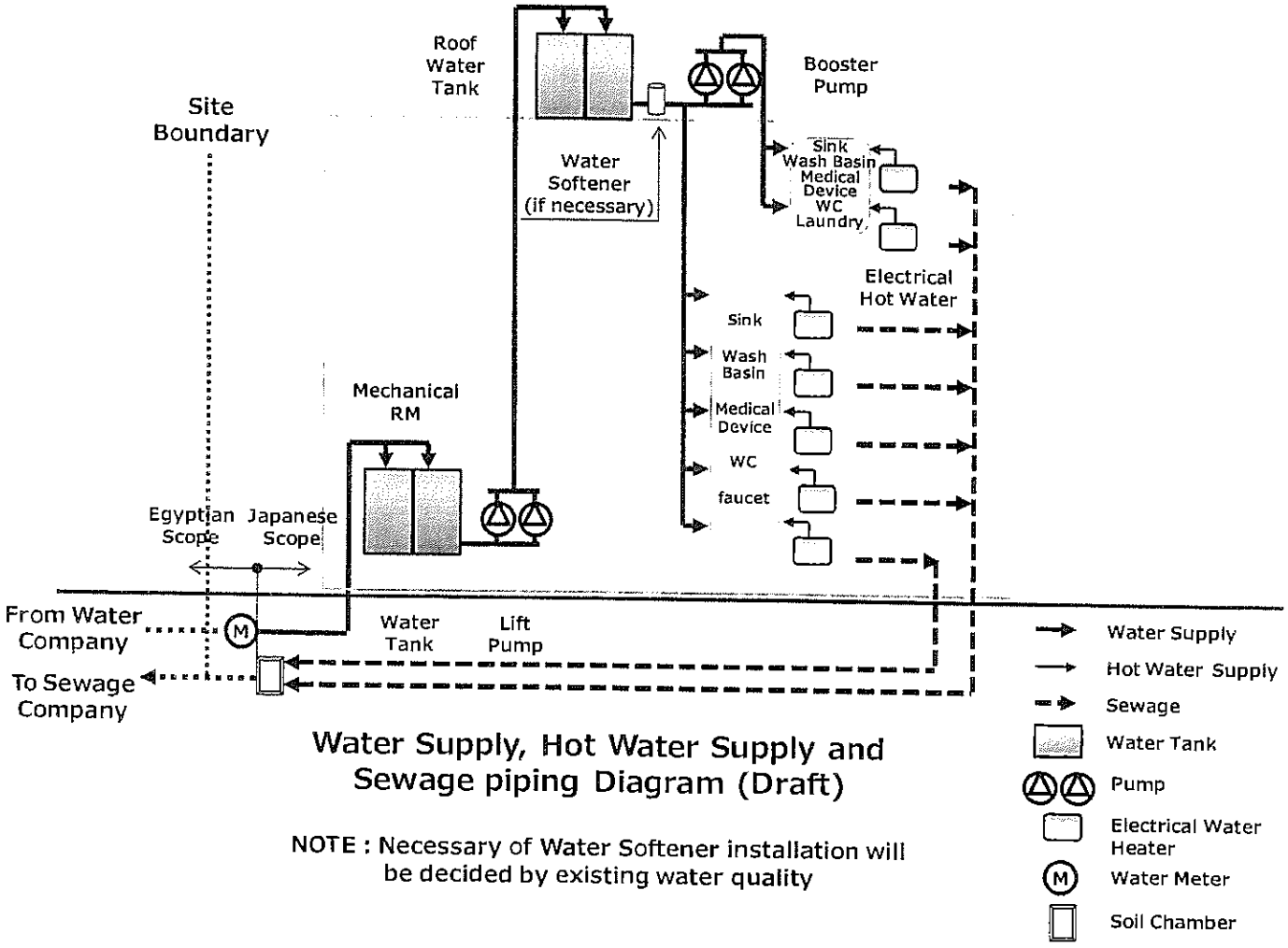
At the result of meeting with sewage department in Egypt, city sewage water pipe line is not installed underground of the road in front of CUSPH.

However, new city sewage pipe line will be installed by permission according to procedure of sewage department. By meeting with sewage department, permission cost of digging the road and installation new pipe line will be required.

After installation new city sewage pipe line, sewage water from CUSPH will be discharged to city sewage water pipe line underground of the road in front of CUSPH.

Figure-M-1 shows the conceptual diagram of water supply, hot water and sewage water discharge system.

Figure-M-1 Conceptual Diagram of Water Supply, Hot Water and Sewage Discharge System



Water Supply, Hot Water Supply and Sewage piping Diagram (Draft)

NOTE : Necessary of Water Softener installation will be decided by existing water quality

4) **Sanitary Fixture**

Sanitary fixture will be selected and available type commonly used in this region.

The water closet will be the Western type, and the flushing apparatus for water closet will be the low tank type. Water faucet controlled by elbow in medical function required room will be selected.

5) **Fire protection**

By discussions with Fire Protection Department, fire protection system in CUSPH should be designed according to Egyptian code. However Fire Protection Department did not recommend detail of required fire protection system.

According to discussion with existing hospital engineer, indoor hydrant and fire extinguisher will be installed in all area of CUSPH. Gas fire fighting system will be installed in electric room. Hand hose powder extinguisher will be installed for parking. Siamese connection will be installed near staircase.

Final design will be decided according to Egyptian code.

6) Medical Gas System

Oxygen and vacuum outlets will be required in CUSPH for emergency treatment.

Oxygen and vacuum outlets will be installed at examination bed of each clinic except the rehabilitation clinic. Standard of Installation Nos. of Oxygen and vacuum outlets for each room will be as below,

	1 bed	2 beds	3 beds	4 beds	5 beds	6 beds	7 beds	8 beds
Nos. of Oxygen and	1	1	2	2	3	3	4	4

Oxygen and vacuum will be supplied by central system using oxygen manifold and vacuum pump with tank.

7) Waste Disposal Facility

At present, general waste and medical waste are separately collected. General waste is regularly collected and disposed by city service. Medical waste is disposed of using the existing incinerator at the CAIRO University.

General waste from CUSPH will be collected and disposed by city service, and medical waste is disposed of using the existing incinerator at the CAIRO University as same as the existing hospital

8) Natural Gas Supply

Natural Gas will be required in CUSPH for burner in the laboratory.

By Egyptian law, it is prohibited to use any gas cylinder inside the laboratory. Therefore, instead of gas cylinder supply, Natural Gas will be supplied to the laboratory from city main Natural Gas pipe.

Natural Gas will be supplied to all laboratories.

9) Laundry

According to requirement, new washing machine and dryer will be installed. Nos. of machine and capacity will be decided with calculation of laundry requirement.

10) Heat Source for Air Conditioning

According to architectural plan, air conditioner and mechanical ventilation will be installed in each room, as necessary.

As heat source, centralized air cooled water chiller system will be installed in CUSPH. More than 2 water chillers will be installed for keeping hospital function against stop for damage or maintenance.

Chilled water made by water chiller will be provided to outdoor fresh air handling unit (AHU) and fan coil unit (FCU) by chilled water pumps.

For saving energy, chilled water pumps will be installed in separate and controlled Nos. of working pump depend on required quantity of chilled water. And 1 pump will be controlled

frequency.

The temperature of the chilled water shall be CS(chilled water supply) 7 degrees, and CR(chilled water return) 12 degrees with a temperature difference of 5 degrees.

Design of heat source for air conditioning should follow the Egyptian Code.

11) Air Conditioning and Ventilation

Saving energy for intake fresh outdoor air is very important for design of Air Conditioning and Ventilation in CUSPH. Energy for fresh air supply cooling must be decreased (for example, fresh air volume is less than 10-20% for total air volume).

Some methods of saving energy for intake fresh outdoor air are considered as below,

- Heat exchanger system (Exhaust from each room would be returned to Air Handling Unit, and energy for fresh air supply cooling would be decreased by heat exchanger between fresh air and exhaust.)
- Minimum volume control system for fresh outdoor air intake

In CUSPH, Heat exchanger system may not be appropriate in CUSPH by the reason as below,

- Exhaust of Lab or experiment would be more safety not to be returned to Air Handling Unit.
- Return air quantity would be less than supply air quantity in this case (If there is no balance between supply and return air quantity, heat exchange efficiency would be decreased)

According to system study, it is considered that minimum volume control system will be appropriate system in CUSPH.

Minimum volume control system in CUSPH is considered as below,

- Most suitable fresh outdoor air intake volume by calculation for minimum requirement
- Most suitable AHU(Air Handling Unit) capacity by minimum outdoor air intake volume
- Motor damper installation in the fresh air supply duct in each room. (If the room will not be working, supply fan energy of AHU and cooling energy will be decreased by motor damper closing for AHU fan control.)

Intake fresh outdoor air will be supplied with controlled temperature to each room by AHU.

Temperature of each room will be controlled by FCU installed in each room.

For appropriate room condition, mechanical ventilation system will be installed. Special exhaust (for example draft chamber exhaust) will be discharged on the roof.

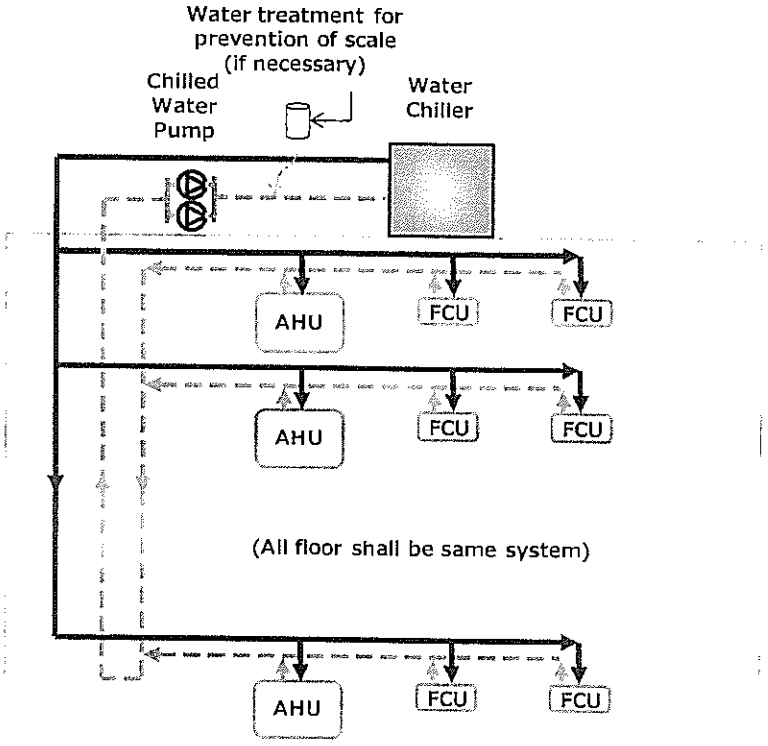
Pre-filter, sand trap and bag filter will be installed in AHU for prevention mixing of sand.

Design of fresh air intake volume should follow the Egyptian Code.

Figure-M-2 shows conceptual diagram of the air condition piping.

Figure-M-3 shows conceptual diagram of the air condition and ventilation ducting.

Figure-M-2 Conceptual diagram of the air condition piping.



Air Conditioning Piping Diagram (Draft)

(With Heating by electric)

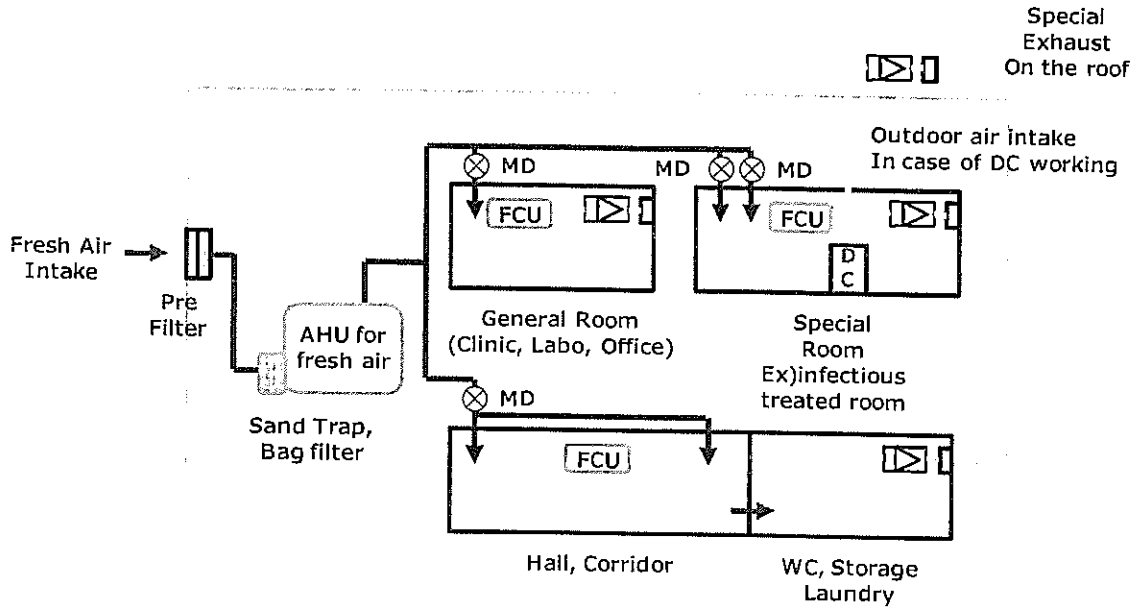
Chilled Water Supply

Chilled Water Return

Water Chiller

Chilled Water Pump

Figure-M-3 Conceptual diagram of air condition and ventilation ducting



Air Conditioning
Ducting Diagram (Draft)

- Fresh air supply duct
- Exhaust duct
- Exhaust Fan
- Special Exhaust Equipment ex)Draft Chamber (D C)
- AHU for fresh air — Fresh air handling unit
- FCU — Fan coil unit
- Motor Damper
- Air conditioned room
- Ventilation room

■ Electrical System

1-1 Design Policy

There are 3 keywords as the design policy as follows:

1. Stabilize Power Supply
2. Save Electricity
3. Save Maintenance

1-2 Relevant Laws and Regulations of Electrical System

Basically, the building or system design should comply with the domestic laws and regulations. Otherwise, Japanese or International laws and regulations will apply in arbitrarily as necessary.

- Domestic Building Code
- Domestic Fire Code
- IEC: International Electrotechnical Commission
- JIS: Japanese Standards
- BS: British Standard

1-3 Outline of Electrical System

1) Power Supply System

In this project, a new building will receive high tension power, 3P4W 11kV 50Hz, from the public line of the power company. High tension line shall be connected to the high tension receiving board(HTRB) in the substation room. The cabling route is underground piping along the load in front of the project site. Power meter by the electricity company shall be located on the outside wall of the substation room.
Next, high tension line from HTRB shall be connected to a transformer in the substation room through vacuum circuit breaker(VCB). The transformer capacity is estimated as 750kVA*1
The transformer changes high tension line to low tension line, 3P4W 380-220V.
The low tension line will be extended from the low tension feeder board(LTFB) in the electrical room.
The scope of works for power supply system is as follows;

-Egyptian side: Cabling to HTRB in the substation room from the public line and power meter
-Japanese side: All system from HTRB including transformer, VCB, LTFB and so on

---

*1: conclusively, the transformer capacity will be planed according to the sum total of the electrical loads.

The voltage from the power company has a little fluctuation. So, automatic voltage regulator (AVR) will be not necessary. While, if voltage changes to the value out of the fixed range, the power supply will be cut off and the generator will be driven automatically.

Figure-E-1 shows the conceptual diagram of the electric power supply system in section
Figure-E-2 shows the conceptual diagram of the electric power supply system by single line

2) Generator System

Recently, power failure doesn't happen so often. Even if it happens, the period is a few minutes. In case of power failure, a new building shall be provided with an emergency generator with diesel engine in the generator room. The generator capacity is estimated as 300kVA. And, an oil service tank with 1000L shall be provided, too. Then, the new generator can be driven for more than 12 hours continuously.

In this project, the emergency loads are as follows:
-25% of lighting fixture
-100% of power sockets
-All plumbing pumps
-Fire fighting system
-Elevators

Figure-E-1: Conceptual Diagram of Power Supply System in Section

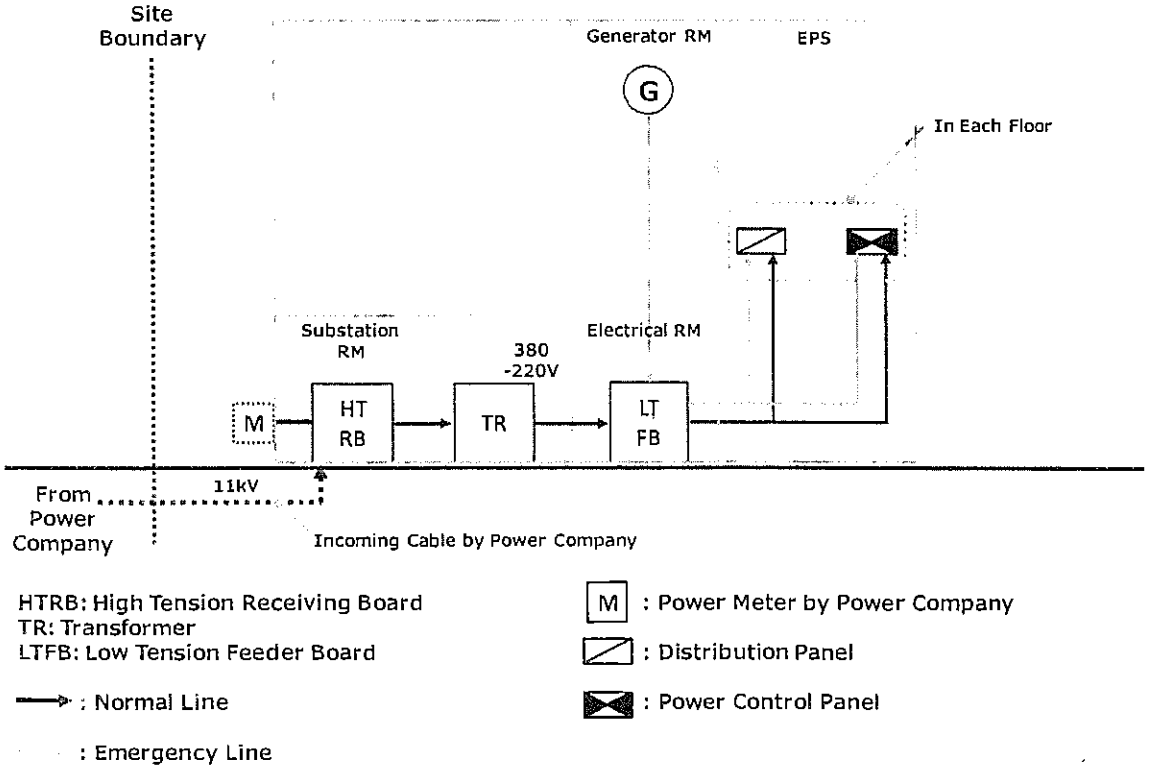
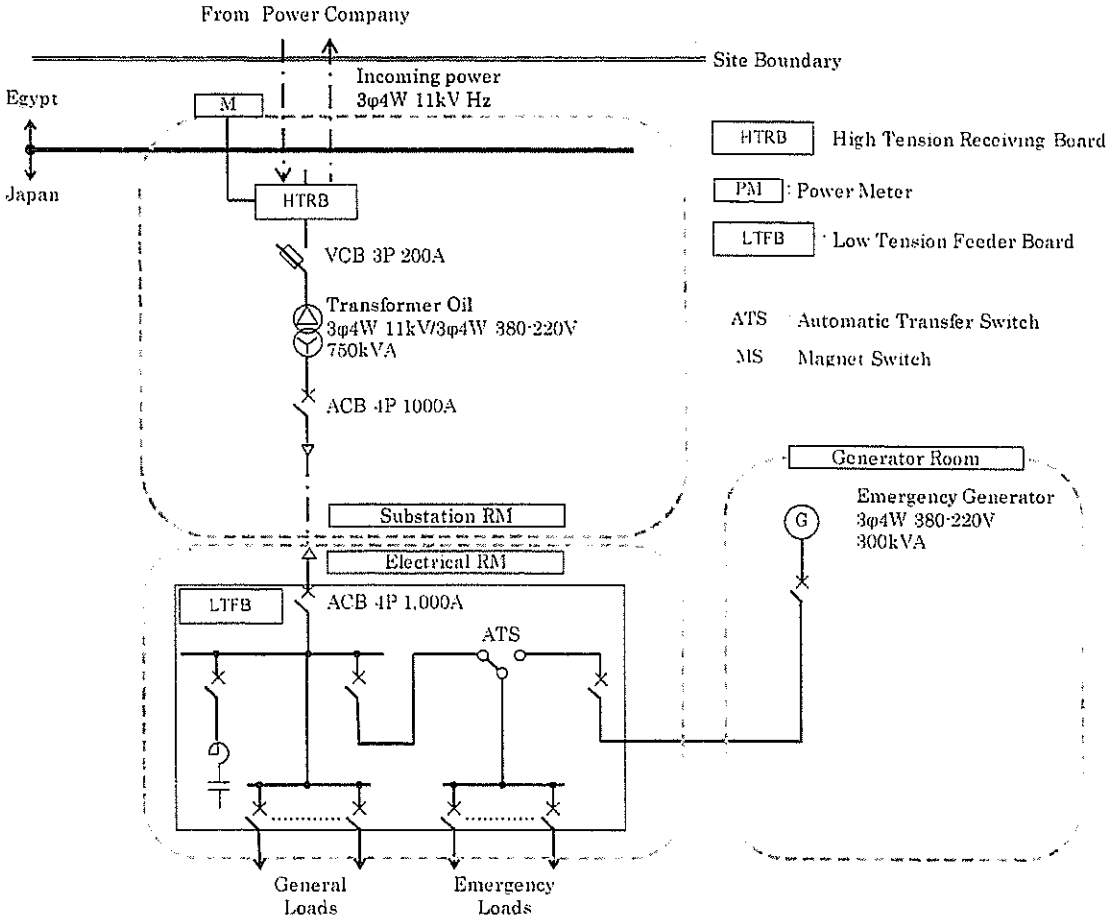


Figure-E-2: Conceptual Diagram of Power Supply System by Single Line



3) Lighting and Power Socket

In the design of lighting system, "Electrical Code" will be applied for illuminance level. Fluorescent fixtures shall be planned for a new building in principle. As possible as can, high-efficiency long-life or easily available lamps will be used to save maintenance. Manual switch will be used to turn light on and off in principle. Additionally, in corridor, timer switch will be used. In toilet and locker room, automatic switch by motion sensor will be used to save electricity.
For emergency evacuation, exit lights with battery will be equipped at necessary places.

The type of power sockets shall be planned as 2 prong plug basically.
1P2W 220V power shall be supplied with power sockets.

A part of lighting fixtures, all of power sockets will be backed up by emergency generator.

Table-E-1 shows the lighting specification for main rooms.

Table-E-1: Lighting Specification for Main Rooms

Room Name	Illuminance	Fixture Type	Switching
Clinic	By Electrical Code	Ceiling Recessed Type with Acrylic Cover	Local Switch
Laboratory	By Electrical Code	Ceiling Recessed Type with Acrylic Cover	Local Switch
Waiting Hall	By Electrical Code	Down Light	Local Switch
Office	By Electrical Code	Ceiling Recessed Type with louver	Local Switch
Corridor	By Electrical Code	Down Light	Local Switch and Timer
WC	By Electrical Code	Down Light	Local Switch and Motion Sensor
Storage	By Electrical Code	Ceiling Mounted Type	Local Switch
Machine room	By Electrical Code	Ceiling Mounted Type	Local Switch

4) Telephone and LAN System

A new building will receive external line from the public line of the telephone company. The external line shall be connected to the main distribution frame(MDF) in the office room. The cabling route is underground piping along the load in front of the project site.
A new building shall be provided with a private exchanger(PBX) in the office room. The number of external line is estimated as 20 lines. As for internal line, the number of internal line is estimated as 40 lines*2.
The scope of works for power supply system is as follows:

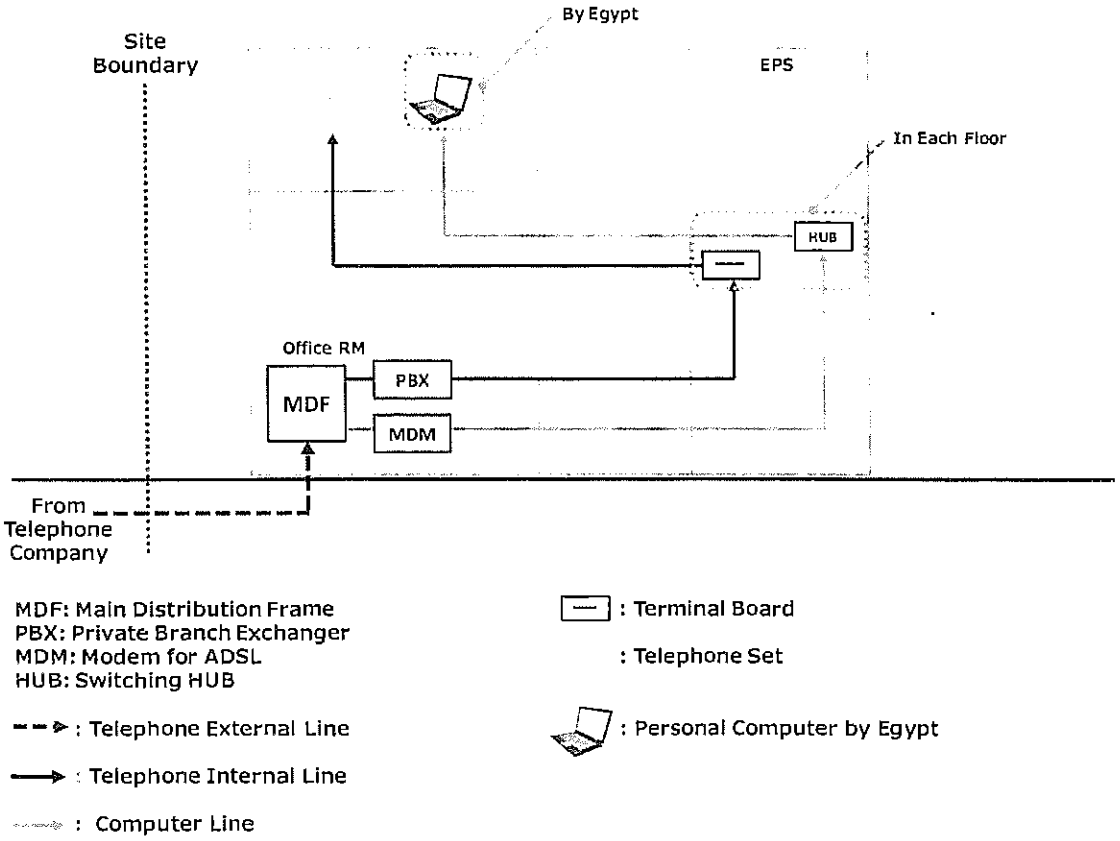
-Egyptian side: Cabling to MDF in the office room from the public line
-Japanese side: All system from MDF including MDF, PBX, terminal board, telephone set

Figure-E-3 shows the conceptual diagram of the telephone system

In a new building, computers will be used for examination or administration. To enable to use LAN system, the cabling between the modem and outlets for LAN system will be planned. The personal computer shall be by Egypt.

*2: conclusively, the number of internal line will be planed according to the sum total of the seats in office and clinic room.

Figure-E-3: Conceptual Diagram of Telephone System



5) Television System

A new building will receive television radiowave by antenna on the roof floor. A new building shall be provided with antenna, booster, distributor and television outlets at necessary places. Television sets shall be by Egypt.

6) Fire Alarm System

Fire alarm system shall be installed in all area according to domestic laws and regulations. Fire alarm system will be composed of fire control panel, detectors, manual call buttons and indication lamps.

7) Public Address System

For emergency warning in fire, public address system shall be installed in all area according to domestic laws and regulations. Otherwise, for general calling of information announce to call doctors, staff, nurse and engineers, public address system shall be installed. Public address system will be composed of amplifier, speakers and attenuators. Public address system is included meaning of call system.

8) Intercom System

Intercom shall be installed in the rooms as follows;

-X-ray control booth ~ X-ray Room
-Clinic ~ Waiting Hall
-Elevators ~ Office Room

9) Grounding System

For a new building, independent grounding system with various types of grounding electrodes will be planed for power supply system.

10) Security System

Security System and Equipments shall be installed in new Out Patient Facility Building under the condition if the budget allows by the Japanese side.

MINUTES OF DISCUSSIONS
ON
THE PREPARATORY SURVEY
ON THE PROJECT FOR CONSTRUCTION OF OUTPATIENT FACILITY AT CAIRO UNIVERSITY SPECIALIZED PEDIATRIC HOSPITAL IN ARAB REPUBLIC OF EGYPT
(EXPLANATION OF THE DRAFT REPORT)

In April and June 2014, the Japan International Cooperation Agency (hereinafter referred to as "JICA") dispatched a Preparatory Survey Team on the Project for Construction of Outpatient Facility at Cairo University Specialized Pediatric Hospital (hereinafter referred to as "the Project") to the Arab Republic of Egypt (hereinafter referred to as "Egypt"), and through discussions, surveys and analysis of the results in Japan, JICA prepared the draft report of the preparatory survey (hereinafter referred to as "the draft report").

In order to explain and to consult on the contents of the draft report with the Egyptian side including the Cairo University, Faculty of Medicine of Cairo University and Cairo University Specialized Pediatric Hospital (hereinafter referred to as "CUSPH"), JICA sent to Egypt the Draft Report Explanation Team (hereinafter referred to as "the Team"), headed by Mr. Shiro Nakasone, Senior Representative, JICA Egypt Office, from November 30th to December 4th 2014.

As a result of discussions, the Egyptian side and the Team (hereinafter referred to as "both sides") confirmed the main items described in the attached sheets.

Cairo, December 3rd, 2014

Mr. Shiro Nakasone
Senior Representative
Egypt Office
Japan International Cooperation Agency
Japan

Dr. Gaber Gad Nassar
President
Cairo University
Egypt

Dr. Fathy Khodair
Dean
Faculty of Medicine
Cairo University
Egypt

ATTACHMENT

1. Components of the draft report

The Egyptian side agreed and accepted the contents of the draft report as explained by the Team. The outline of the Project is as described in Annex 1, 2 and 3.

2. Japan's Grant Aid Scheme

The Egyptian side understood the Japan's Grant Aid Scheme and the necessary measures to be taken by the Government of Egypt as explained by the Team and described in Annex 4 and 5, as confirmed by both parties in the Minutes of Discussions signed on June 25th, 2014.

3. Schedule of the Survey

After this survey, JICA will submit the draft report to the Government of Japan for the Project appraisal. Through the appraisal, the Japanese Cabinet will make a final decision for the implementation of the Project. If the Project is approved by the Japanese Cabinet, the final report (the Preparatory Survey Report) will be sent to the Government of Egypt by the end of February 2015.

4. Confidentiality of the Project Design

Both sides confirmed that all information related to the Project including cost estimation of the Project described in Annex 6, detailed specifications of the facilities, the equipment and other technical information shall not be released to any outside party before the signing of all the Contract(s) for the Project. The Egyptian side understood that the Project Cost Estimation is not final and is subject to change.

5. Measures to be taken by the Egyptian side

5-1. Aside from the items described in Annex 5, the Egyptian side agreed to take necessary measures described in Annex 7 in a timely manner for smooth implementation of the Project.

5-2. Cairo University agreed to allocate necessary budget and manpower as shown in Annex 8 for proper operation and maintenance of the Project.

5-3. Special permission regarding building height has been issued by the Prime Minister's Office, Ministry of Housing and Urban Communities, Supreme Council for Planning and Urban Development and the Ministry of Civil Aviation, on the condition that additional parking space is prepared for the existing CUSPH. Cairo University confirmed to prepare additional parking space for the existing CUSPH and explained that this issue will not hinder the smooth implementation of the Project.

G-m F.K.

5-4. Regarding the land for the Project site, a contract was signed on November 4th 2014 between the Cairo University and "We Owe it to Egypt" as attached in Annex 9 (hereinafter mentioned as "the Contract"). Regarding the deadline of the Project mentioned in the Contract, the Cairo University and "We Owe it to Egypt" confirmed that in unforeseen and emergency circumstances, the period which the Project was forced to stop due to such circumstances will be calculated and added to extend the deadline of the Project, as mentioned in the letter issued by "We Owe it to Egypt" on November 26th 2014 as attached in Annex 10 and the letter issued by the Cairo University on December 2nd 2014 as attached in Annex 11.

5-5. The Egyptian side agreed to take all necessary measures so that signing of Exchange of Notes (hereinafter referred to as "E/N") and Grant Agreement (hereinafter referred to as "G/A") of the Project will take place without delay, once the approval of the Project is given by the cabinet of Japan.

6. Tentative Project Schedule

The Team explained the tentative schedule of the Project as described in Annex 12.

END

Annex 1: Outline of the Project
Annex 2: Facility Plan
Annex 3: Equipment List
Annex 4: Japan's Grant Aid Scheme
Annex 5: Major Undertakings to be taken by Each Government
Annex 6: Cost Estimation of the Project
Annex 7: Necessary Measures to be taken by the Egyptian Side
Annex 8: Necessary Budget and Manpower for Operation and Maintenance of the Project
Annex 9: Contract on Land Donation Signed by "We Owe it to Egypt" and the Cairo University on November 4th, 2014
Annex 10: Letter from "We Owe it to Egypt" to the Cairo University dated November 26th, 2014
Annex 11: Letter from the Cairo University to "We Owe it to Egypt" dated December 2nd, 2014
Annex 12: Tentative Schedule of the Project

ANNEX 1

Outline of the Project

1) Outline of the Facility

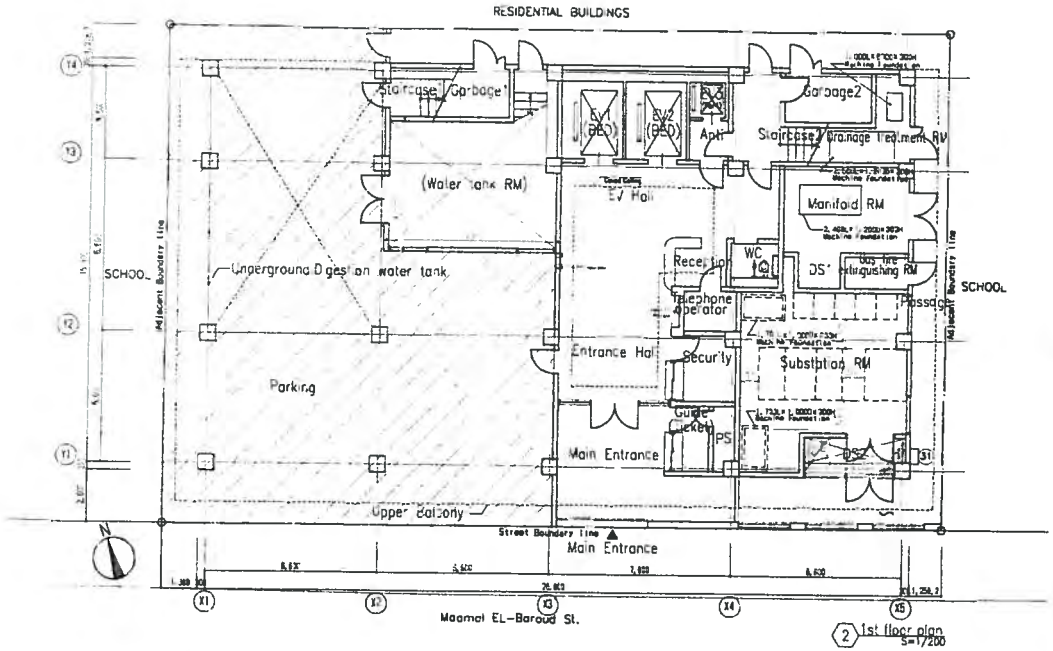
Category	Contents of the facility	Function, Rooms	
Facility Component	Outpatient facility (Total area: 3115.10 m^2)	PH floor:	Laundry room, Cleaner room, Generator room
		7th floor:	Training room, Pharmacy, Drug storage, Medical consumables storage, Supplies storage, Director's room, Nursing director's room, Outpatient department manager's room, Office, Staff's changing room, Record storage room
		6th floor:	Hepatology / Tropical, Genetic, Genetic laboratory
		5th floor:	Cardiology, Post operative cardiac surgery, Catheterization, Cardiomyopathy / Aarrhythmia, Rheumatic fever, Cardiac ultrasound laboratory, ECG room
		4th floor:	Neurometabolism / Neuromuscular / Neurology ICU discharged/ Neurology NICU discharged, Neurology, Neurometabolism / Molecular disorder laboratory, EMG room, EEG room
		3rd floor:	Allergy / Chest, Immunology / Collagen, X-Ray room, Abdominal ultrasonography room
		2nd floor:	Laboratory, Rehabilitation & Physiotherapy
		1st floor:	Entrance hall, Parking area, Machinery room,etc
Outline of Electrical Plan		·Generator system ·Lighting / Power Socket ·Telephone / LAN system ·Television system ·Fire alarm syste	·Public Address system ·Intercom system ·Ground connection system ·Security system
Outline of Mechanical Plan		·Water supply system ·Hot water supply system ·Sewage water system ·Gas supply system ·Sanitary fixture	·Fire protection system ·Medical gas system ·Waste treatment ·Air conditioning and ventilation system

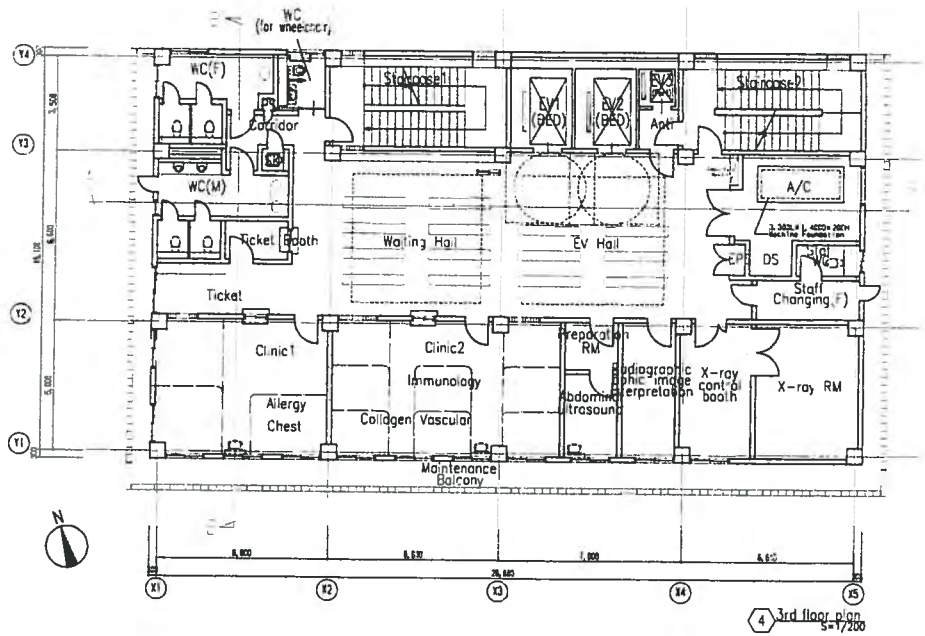
2) Outline of the Equipment

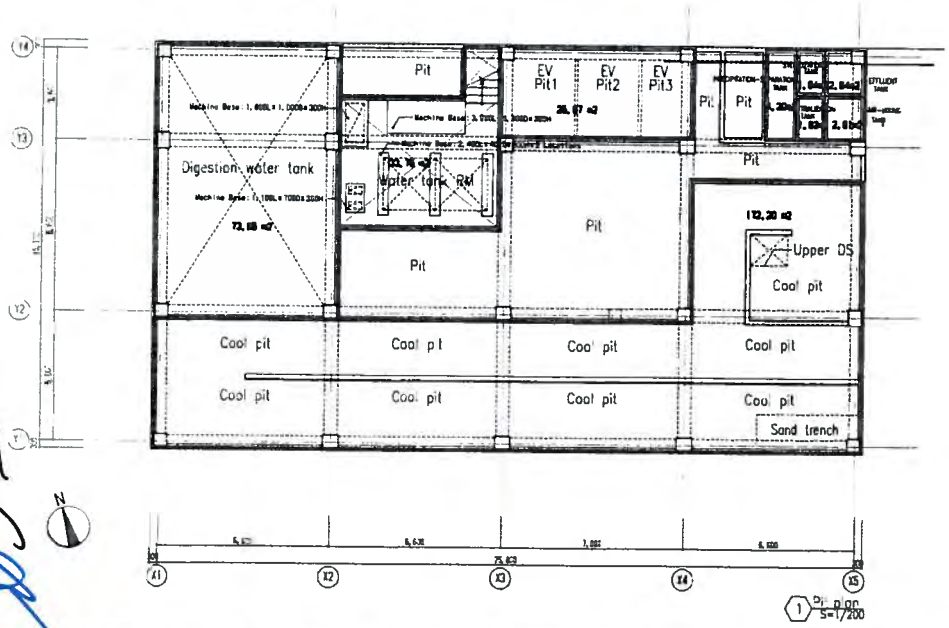
Department	Description
Outpatient clinic	Examining table, Examining Lamp, Ultrasonic Nebulizer, Film illuminator, Weighing scale for infant, Height scale for pediatric, etc.
Neurology	EEG, EMG
Neuro Metabolism Laboratory	Liquid chromatography/ Tandem mass spectrometry, Plate Puncher, Weight, Fumehood, etc.
Central Laboratory (Hematology, biochemistry, Bacteria Test, Immunology)	5 parts automated cell counter, Automated coagulation analyzer, T.B culture system, Automated blood culture system, Lab fridge (-80℃) , Automated chemistry analyzer, Automated electrolyte analyzer, etc.
Image diagnostic department	X-ray unit, Image printer, CR unit
Training room	Training Tables, Chair, Projector, Simulator Mannequin, etc
Rehabilitation & Physiotherapy	Muscle stimulator, Ultra sound therapy unit, Biofeedback, Standing table, Whirlpool bath, Exercise therapy equipment, etc.
Cardiology	Echo machine, Non-invasive monitor, ECG, High signal averaging ECG, Holter ECG, Exercise test(Treadmill), etc.

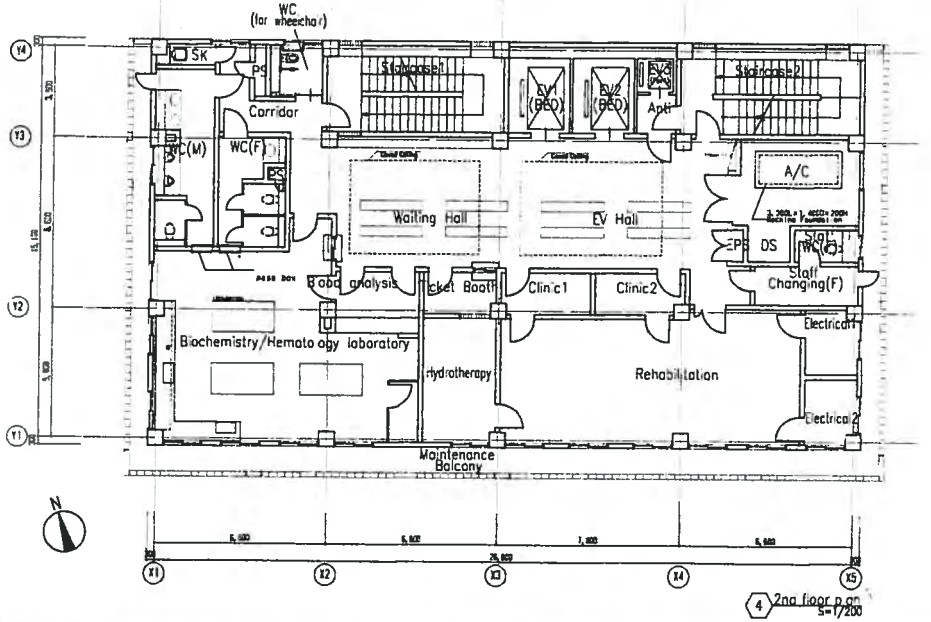
F.K

G.M







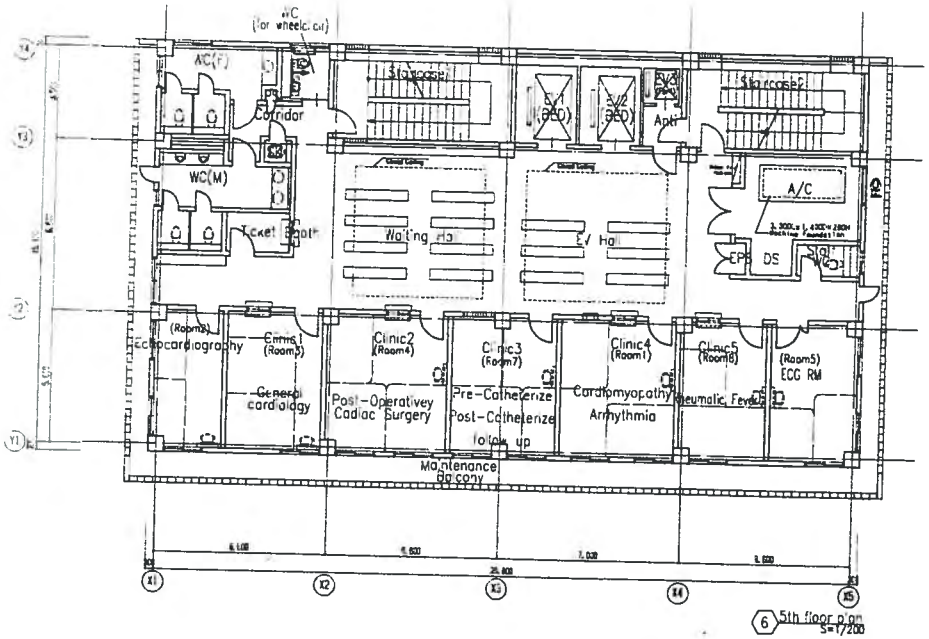


Facility Plan

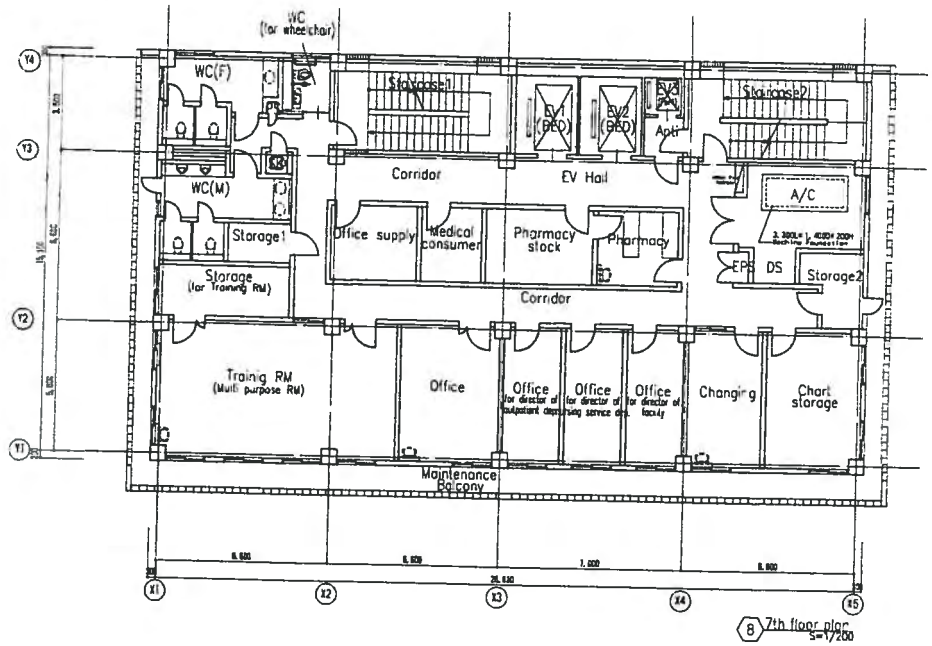
ANNEX2

EGYPT
Project for Construction of Outpatient Facility at Cairo University Specialized Pediatric Hospital

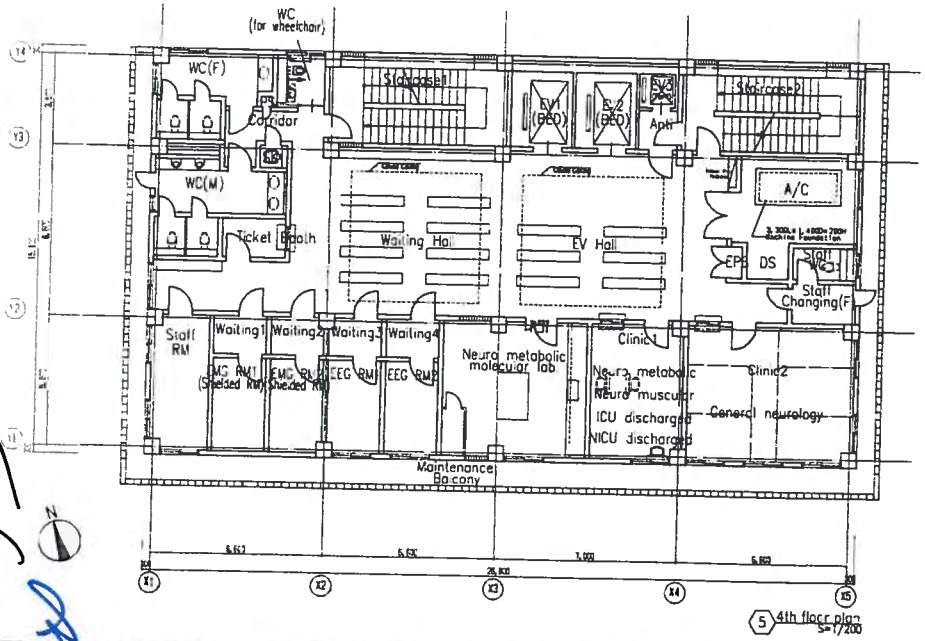
PLAN-1 (PIT~3FL)
1/200



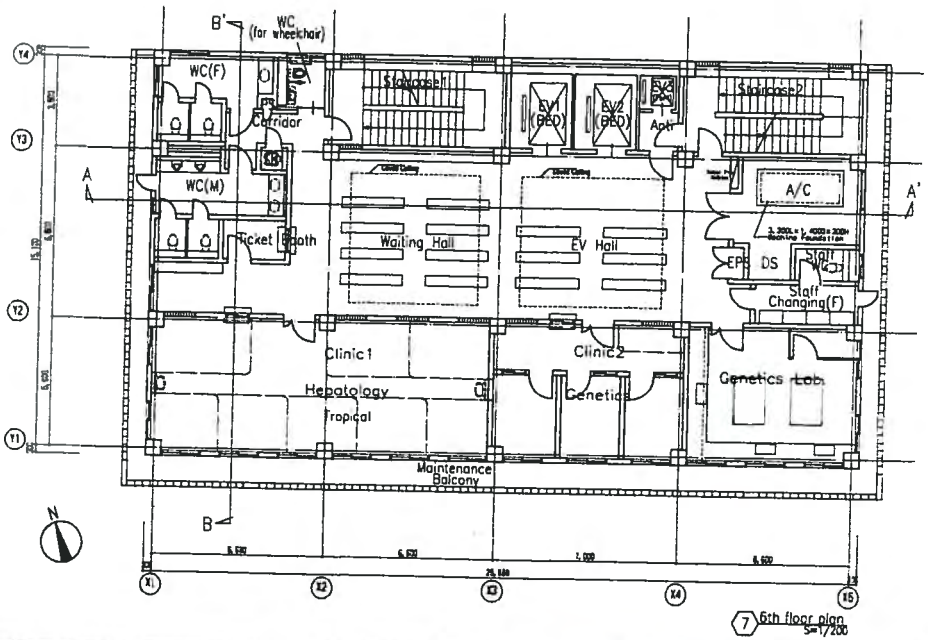
6 5th floor plan S=1/200



8 7th floor plan S=1/200



5 4th floor plan S=1/200



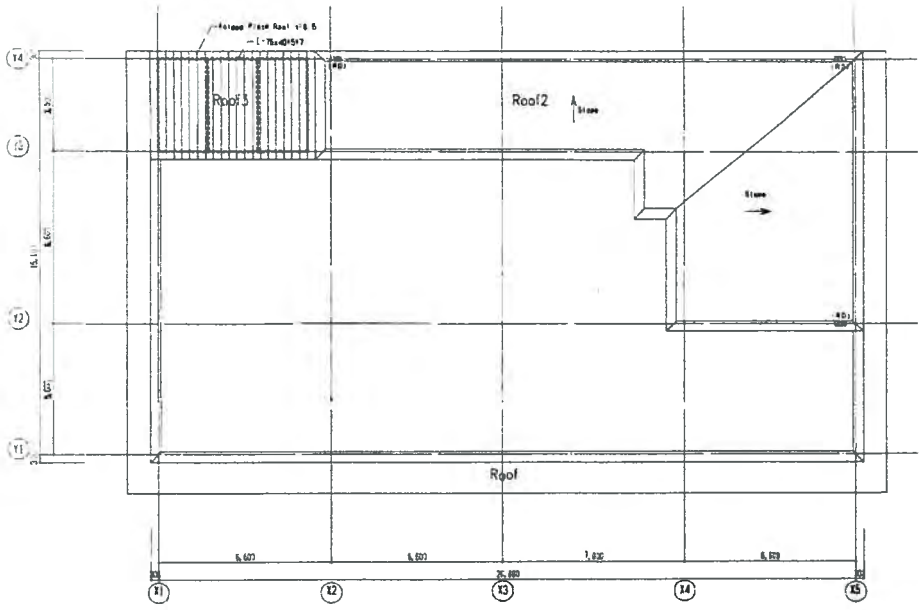
7 6th floor plan S=1/200

EGYPT

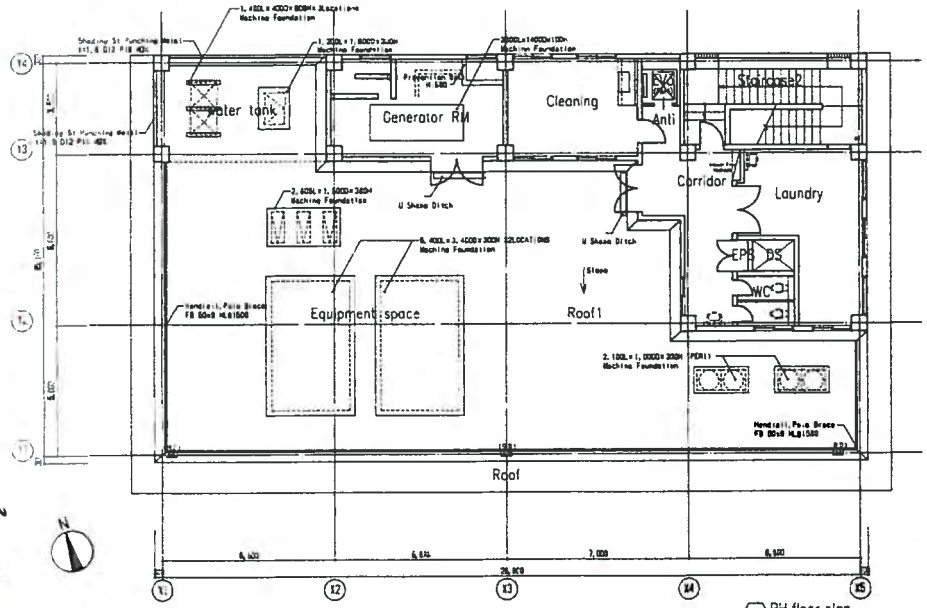
Project for Construction of Outpatient Facility at Cairo University Specialized Pediatric Hospital

	PLAN-2 (4FL~7FL)
	1/200

11.10.2014



10 Roof floor plan S=1/200



9 PH floor plan S=1/200

EGYPT
Project for Construction of Outpatient Facility at Cairo University Specialized Pediatric Hospital

PLAN-3 (PH, RFL)

1/200

ANNEX3

Equipment List

Code No.	Department	Description	Quantity to be Procured
1	Outpatient Department	Examining table	45
2	Outpatient Department	Examining Lamp	11
3	Outpatient Department	Instrument cabinet	18
4	Outpatient Department	Film illuminator(2 screen)	13
5	Outpatient Department	Weighing scale (for infant)	12
6	Outpatient Department	Height scale (for pediatric)	12
7	Outpatient Department	Weighing scale (for pediatric)	12
8	Outpatient Department	Otoscope	2
9	Outpatient Department	Ultrasonic Nebulizer	1
10	Outpatient Department	Medical refrigerator S	2
11	Outpatient Department	Spirometry	1
12	Outpatient Department	Oxygen humidifier	21
13	Radiology	X-ray unit	1
14	Radiology	CR unit	1
15	Radiology	Image printer	1
16	Radiology	Ultrasound diagnostic apparatus (For Abdominal)	1
17	Pharmacy	Medicine cabinet	5
18	Pharmacy	Medical refrigerator L	3
19	Pharmacy	Rack	2
20	Rehabilitation & Physiotherapy	Muscle stimulator	1
21	Rehabilitation & Physiotherapy	Ultra sound therapy unit	1
22	Rehabilitation & Physiotherapy	Electric adjusted plinth sling suspension therapy	1
23	Rehabilitation & Physiotherapy	Biofeedback	1
24	Rehabilitation & Physiotherapy	Mat/Roll/Wedge/Ball	1
25	Rehabilitation & Physiotherapy	Whirlpool bath	2
26	Rehabilitation & Physiotherapy	Wall bars	1
27	Rehabilitation & Physiotherapy	Parallel bar	1
28	Rehabilitation & Physiotherapy	Conductive education; Cubs	1
29	Rehabilitation & Physiotherapy	Conductive education; Bicycle	1
30	Rehabilitation & Physiotherapy	Standing table	1
31	Rehabilitation & Physiotherapy	Sitting table	1

G.m F.K

Code No.	Department	Description	Quantity to be Procured
32	Rehabilitation & Physiotherapy、Arrhythmia	Balancing table	1
33	Neurology	EEG	1
34	Neurology	EMG	1
35	Neuro Metabolism Laboratory	Liquid chromatography/Tandem mass spectrometry	1
36	Neuro Metabolism Laboratory	Plate Puncher	1
37	Neuro Metabolism Laboratory	Thermo plate shaker	1
38	Neuro Metabolism Laboratory	Weight (4 digits)	1
39	Neuro Metabolism Laboratory	Fumehood	1
40	Neuro Metabolism Laboratory/ Bacteria Test	Lab fridge(-80degrees Celsius)	2
41	Training room	Central venous line simulator	1
42	Training room	Intra muscular injection simulator	1
43	Training room	CPR Neonatal simulator	1
44	Training room	Umbilical catheter simulator	1
45	Training room	Intubations simulator(Pediatric)	1
46	Training room	Intubations simulator(Neonatal)	1
47	Training room	CPR Pediatric simulator	1
48	Training room	Training Tables	6
49	Training room	Chair (for training table)	36
50	Training room	Wall mount projector	1
51	Training room	Projector	1
52	Training room	Projector screen	1
53	Training room	Emergency cart	1
54	Hematology	5 part automated cell counter	1
55	Hematology	Automated coagulation analyzer	1
56	Hematology	Research quality binocular microscope	1
57	Hematology	Incubator	1
58	Hematology/ Biochemistry	Centrifuge	2
59	Hematology/Biochemistry/ Bacteria Test	Two door reagent Refrigerator with lock	3
60	Hematology/Biochemistry/ Bacteria Test	Refrigerator with freezer and lock	3
61	Immunology	Automated immunology analyzer	1
62	Immunology	Fluorescent microscope	1
63	Immunology	ELISA microplate reader & washer	1
64	Bacteria Test	T.B culture system	1

Code No.	Department	Description	Quantity to be Procured
65	Bacteria Test	Automated blood culture system	1
66	Bacteria Test	Laminar flow cabinet (class 2)	1
67	Collagen/Bacteria Test	Binocular Microscope	3
68	Bacteria Test	Hemocytometer	2
69	Biochemistry	Automated chemistry analyzer	1
70	Biochemistry	Automated electrolyte analyzer	1
71	Cardiomyopathy / Arrhythmia	High signal averaging ECG	1
72	Cardiomyopathy / Arrhythmia	Holter ECG	2
73	Cardiomyopathy/Catheterization/ Post operative cardiac surgery/Cardiology	Non-invasive monitor	5
74	Echo Laboratory	Echo machine A	2
75	Post operative cardiac surgery	Echo machine B	1
76	Cardiology	ECG	2
77	Cardiology	Exercise Test (Treadmill)	1
78	Outpatient Department	Consultation desk	20
79	Outpatient Department	Consultation chair	51
80	Outpatient Department	Wall-mounted suction unit	21
81	Biochemistry	Liquid waste collection container	1

G.m F.K

ANNEX 4

Japan's Grant Aid Scheme

The Government of Japan (hereinafter referred to as "the GOJ") is implementing the organizational reforms to improve the quality of ODA operations, and as a part of this realignment, a new JICA law was entered into effect on October 1, 2008. Based on this law and the decision of the GOJ, JICA has become the executing agency of the Grant Aid for General Projects, for Fisheries and for Cultural Cooperation, etc.

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

1. Grant Aid Procedures

The Japanese Grant Aid is supplied through following procedures :

- Preparatory Survey
  - The Survey conducted by JICA
- Appraisal & Approval
  - Appraisal by the GOJ and JICA, and Approval by the Japanese Cabinet
- Authority for Determining Implementation
  - The Notes exchanged between the GOJ and a recipient country
- Grant Agreement (hereinafter referred to as "the G/A")
  - Agreement concluded between JICA and a recipient country
- Implementation
  - Implementation of the Project on the basis of the G/A

G.M F.K

2. Preparatory Survey

(1) Contents of the Survey

The aim of the preparatory Survey is to provide a basic document necessary for the appraisal of the Project made by the GOJ and JICA. The contents of the Survey are as follows:

- Confirmation of the background, objectives, and benefits of the Project and also institutional capacity of relevant agencies of the recipient country necessary for the implementation of the Project.
- Evaluation of the appropriateness of the Project to be implemented under the Grant Aid Scheme from a technical, financial, social and economic point of view.
- Confirmation of items agreed between both parties concerning the basic concept of the Project.
- Preparation of a outline design of the Project.
- Estimation of costs of the Project.

The contents of the original request by the recipient country are not necessarily approved in their initial form as the contents of the Grant Aid project. The Outline Design of the Project is confirmed based on the guidelines of the Japan's Grant Aid scheme.

JICA requests the Government of the recipient country to take whatever measures necessary to achieve 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 of the recipient country which actually implements the Project. Therefore, the implementation of the Project is confirmed by all relevant organizations of the recipient country based on the Minutes of Discussions.

(2) Selection of Consultants

For smooth implementation of the Survey, JICA employs (a) registered consulting firm(s). JICA selects (a) firm(s) based on proposals submitted by interested firms.

(3) Result of the Survey

JICA reviews the Report on the results of the Survey and recommends the GOJ to

appraise the implementation of the Project after confirming the appropriateness of the Project.

3. Japan's Grant Aid Scheme

(1) The E/N and the G/A

After the Project is approved by the Cabinet of Japan, the Exchange of Notes(hereinafter referred to as "the E/N") will be singed between the GOJ and the Government of the recipient country to make a pledge for assistance, which is followed by the conclusion of the G/A between JICA and the Government of the recipient country to define the necessary articles to implement the Project, such as payment conditions, responsibilities of the Government of the recipient country, and procurement conditions

(2) Selection of Consultants

In order to maintain technical consistency, the consulting firm(s) which conducted the Survey will be recommended by JICA to the recipient country to continue to work on the Project's implementation after the E/N and G/A.

(3) Eligible source country

Under the Japanese Grant Aid, in principle, Japanese products and services including transport or those of the recipient country are to be purchased. When JICA and the Government of the recipient country or its designated authority 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, constructing and procurement firms, and the prime consulting firm are limited to "Japanese nationals".

(4) Necessity of "Verification"

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

(5) Major undertakings to be taken by 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 Annex.

(6) "Proper Use"

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

(7) "Export and Re-export"

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

(8) Banking Arrangements (B/A)

a) The Government of the recipient country or its designated authority should open an account under the name of the Government of the recipient country in a bank in Japan (hereinafter referred to as "the Bank"). JICA 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 JICA under an Authorization to Pay (A/P) issued by the Government of the recipient country or its designated authority.

(9) Authorization to Pay (A/P)

The Government of the recipient country should bear an advising commission of an Authorization to Pay and payment commissions paid to the Bank.

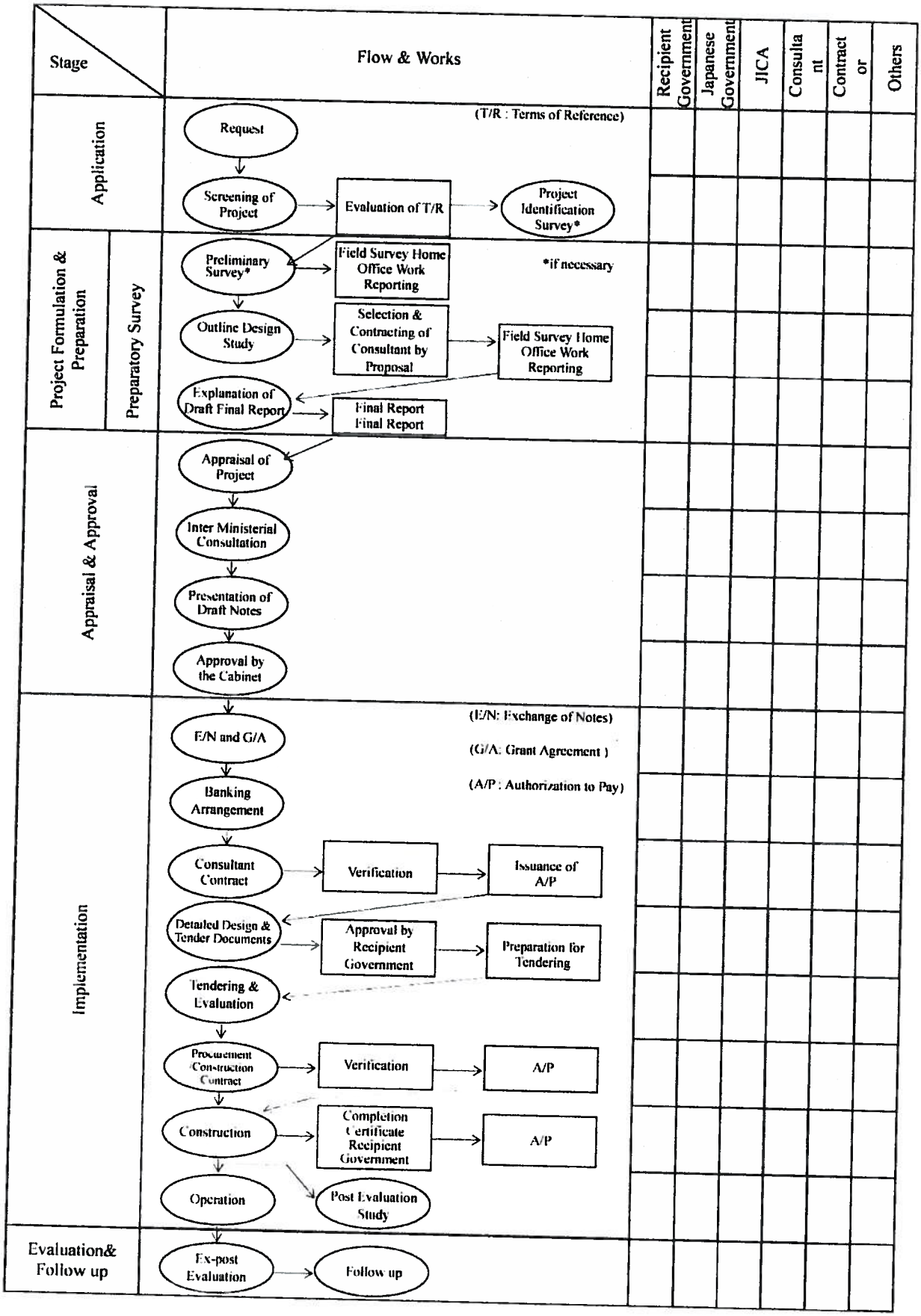
(10) Social and Environmental Considerations

A recipient country must carefully consider social and environmental impacts by the Project and must comply with the environmental regulations of the recipient country and JICA socio-environmental guidelines.

F.K

G-m

4. Flow Chart of Japan's Grant Aid Procedures



ANNEX 5

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 a lot of land necessary for the implementation of the Project and to clear the sites		●
2	To construct the following facilities		
	1) The building	●	
	2) The gates and fences in and around the site		●
	3) The parking lot	●	
	4) The road within the site	●	
	5) The road outside the site		●
3	To provide facilities for distribution of electricity, water supply and drainage and other incidental facilities necessary for the implementation of the Project outside the sites		
	1) Electricity		
	a. The distributing power 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, common 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	●	
4	To ensure prompt customs clearance of the products and to assist internal transportation of the products in the 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	(●)	(●)
5	To ensure that customs duties, internal taxes and other fiscal levies which may be imposed in the recipient country with respect to the purchase of the products and the services be exempted.(According to the approval of the concerned authorities)		●
6	To accord Japanese nationals whose services may be required in connection with the supply of the products and the services such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work		●
7	To ensure that the facilities and the products be maintained and used properly and effectively for the implementation of the Project		●
8	To bear all the expenses, other than those covered by the Grant, necessary for the implementation of the Project		●
9	To bear the following commissions paid to the Japanese bank for banking services based upon the B/A		
	1) Advising commission of A/P		●
	2) Payment commission		●

(B/A : Banking Arrangement, A/P : Authorization to pay)

ANNEX6

Cost Estimation of the Project

(2) Expenses to be Paid by Egypt

Item	Expenses (US dollars)	Responsible Organization
A: Removal of ground buried objects of the construction site	10,000	CUSPH
B: Expenses for purchasing furniture, fixtures, etc. (including curtains and blinds)	34,500	CUSPH
C: Installing of Electricity , Waterworks, lines Gas supply and Telephone line to the construction site	28,000	CUSPH
D: Extending and installing of the main sewer piping to the construction site	26,000	CUSPH
E: Transfer expenses	5,000	CUSPH
G: Banking Arrangement (B/A) establishment expenses and Authorization to Pay (A/P) issuance charges	14,200	MOIC Ministry of Finance Central Bank of Egypt
Total	117,700	

(3) Cost Estimation Conditions

i) Time of estimation: November, 2014

ii) Exchange rate: 1 USD = 110.42 yen, 1EURO=140.07 yen

iii) Construction period: The period of detailed design, tenders and building construction work and equipment procurement are as shown in the project implementation schedule.

iv) Other: The Project will be implemented in accordance with the

ANNEX7

Necessary Measures to be taken by the Egyptian Side

Necessary measures to be taken by the Egyptian side aside from the items described in Annex 5 are described below:

Necessary Measures to be taken by the Egyptian Side	
01	Issuance of Banking Arrangement (B/A) and Authorization to Pay (A/P) and payment of accompanying charges
02	To accord Japanese physical persons and / or physical persons of third countries whose services may be required in connection with the supply of the products and the services such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work
03	Securing of material storage yard, land for temporary consultant office and land for site office
04	Extending and installing of the Sewage main piping to the construction site
05	Acquisition of permission and authorization required for the construction work
06	Removal of structures (including the foundation) in the site
07	Reinforcing of the existing adjacent walls around the construction site
08	Procedures, contract, payment related to the electricity, telephones, gas, water and sewage for this project
09	To secure necessary manpower and budget for proper operation and maintenance of the Outpatient Facility as described Annex 8
10	Installing of curtains and blinds to the Outpatient Facility
11	Moving and installing of existing equipment, materials, etc.

ANNEX 8

Necessary Budget and Manpower for Operation and Maintenance of the Project

(1) Necessary additional staff placement

(a) Administration Department

Department		Section Chief	Staff
Common	Training/Information	1	1
Administration	Finance	1	1
	General		1
	Personnel		1
Technical	Medical Equipment		1
	Electricity & Communication	1	1
	Security		16
	Cleaner		22
TOTAL		3	44

(b) Medical Service Department

Clinic Laboratory	Days per week	Doctor			Nurse	Technician	Clerk	TOTAL	The reason for the additional placement
		Faculty	Trainee	Contract					
Cardiology	6				2			2	For reception and measurement at the cardiology.
Neurology	5								Person in charge of outpatient clinic of the newly established subspecialty.
Neurology ICU discharged	1	1			1			2	
Neurology NICU discharged	1	1			1			2	
EEG, EMG	5				2			2	Operation person in charge of each machine.
Radiation (X-ray)	6	1				2		3	Radiographers in charge of exposure and a radiology doctor to interpret it.

Central Laboratory	6	4	3			4	3	14	Perform inspection using the machine of examination of hematology / biochemistry / immunology / bacteriology and make reports.
Rehabilitation & Physiotherapy	6					3		3	Physiotherapists who can perform child rehabilitation. They will conduct physical therapy, exercise therapy, occupational therapy and water therapy.
Medical Material Supplier & Pharmacy	6			2			1	3	Two pharmacists and one person in charge of transporting medicine from the Cairo university Central warehouse.
Total	-	7	3	2	6	9	4	31	

(2) Necessary additional budget for operation and maintenance of the Project (Unit: LE)

Additional expense necessary for the Project (operation, maintenance and management expenses)	Amount
1) Drugs and medicines	912,300
2) Reagents / Chemicals	608,200
3) Medical consumables / Parts	66,900
4) Outsourcing to the private sector	591,170
5) Office supplies	30,410
6) Outpatient facilities	
- Electricity expenses	113,580
- Telephone charges	8,568
- Generator fuel expenses	1,872
- Water and sewage charges	3,640
- Oxygen gas charges	88,700
- Natural gas charges	11,070
- Elevator maintenance expenses	60,720
- Building and system maintenance expenses	135,000
Subtotal of 6)	423,150
7) Operation, maintenance and management expenses for the medical equipment and materials	
- Maintenance and management expenses for the new equipment and materials	122,370
- Expenses of maintenance and management requiring contract with a local agent of manufacure	577,000
Subtotal of 7)	699,370
- Total of 1) ~ 7) above	3,331,500

WEFA TO EGYPT

عقد اتفاق

إنه في يوم الأربعاء الموافق ٢٠١٤/١١/٤ حرر هذا العقد بين كل من:

أولا: مؤسسة وفاء لمصر و مقرها ٥ ميدان السراي الكبرى، جاردن سيتي- القاهرة- مشهرة برقم ٦٧٦٧ لسنة ٢٠٠٧ مدرية القاهرة للشئون الاجتماعية. و يمثلها قانونا السيد الأستاذ/ حسن عبد الله بصفته رئيس مجلس الأمناء، و يطلق عليها فيما بعد لفظ (المؤسسة الطرف الأول)

ثانيا: جامعة القاهرة ومقرها اورمان- جيزة و يمثلها قانونا الأستاذ الدكتور/ جابر نصار بصفته رئيس الجامعة و الرئيس الأعلى لمستشفى الأطفال الجامعي، و يطلق علية فيما بعد لفظ (الجامعة، الطرف الثاني).

تمهيد

بتاريخ ٢٠٠٩/٢/٢٥ أبرم فيما بين المؤسسة و جامعة القاهرة عقد هبة للعقار الكائن برقم ٤ شارع معمل البارود شياخة العيني السيدة زينب محافظة القاهرة و البالغ مسطحة ٥٦٧،٣٠ متر مكعب و ذلك بغرض إقامة مبنى ملحق لمستشفى الأطفال الجامعي التخصصي أبو الريش الياباني من خلال برنامج المعونة التابع للحكومة اليابانية (JICA)

و في ذات تاريخ عقد الهبة ابرم ملحق بين طرفيه تم النص بالبند الثاني على الاتى:

"اتفق الطرفان على انه فى حالة عدم إتمام بناء المشروع وتشغيله في موعد أقصاه نهاية ديسمبر ٢٠١٣ يفسخ عقد الهبة و يعود العقار للمؤسسة الطرف الأول لإعادة تخصيصه في أي من أغراض المؤسسة الخيرية". وحيث ان الفترة الزمنية انقضت دون إقامة المشروع فيصبح من حق المؤسسة الطرف الأول استعادة الأرض موضوع عقد الهبة.

وبتاريخ ٢٠١٤/٧/١٣ ورد للمؤسسة كتاب الأستاذ الدكتور رئيس جامعة القاهرة (الطرف الثاني) والذى يتضمن مبررات عدم التمكن من اتمام المشروع في الموعد المحدد موضحا " ان نظرا للظروف الطارئة التى مرت بها البلاد خلال الثلاث سنوات السابقة، لم تتمكن الاطراف المعنية من اتمام المشروع فى المدة الزمنية المنظورة". كما اوضحت المكاتبة المشار اليها اعلاه استعداد وجدية برنامج المعونة التابع للحكومة اليابانية في تنفيذ المشروع وإتمامه خلال عام ٢٠١٧. وقد اختتم

خطاب الجامعة، الطرف الثاني بطلب مد المهلة لتنتهي في ٢٠١٧ لأهمية المشروع للمنظومة الصحية في مصر.

وقد قامت المؤسسة الطرف الأول بتاريخ ٢٠١٤/٨/٢٠ بإبلاغ الجامعة الطرف الثاني بموافقة مجلس أمناء المؤسسة على طلبها لمد مهلة للانتهاء من المشروع إلى عام ٢٠١٧ وفقا للضوابط الأتي ذكرها:

وقد اتفق إدارة طرفي هذا العقد على الأتي:

البند الأول

يعتبر التمهيد السابق جزء لا يتجزأ من هذا العقد و كذا عقد الهبة و ملحقة المؤرخ ٢٠٠٩/٢/٢٥

البند الثاني

وافق مجلس أمناء مؤسسة وفاء لمصر (الطرف الأول) على الاستجابة لرغبة الجامعة الطرف الثاني بمد الفترة الزمنية الخاصة بإهداء الأرض المشار إليها أعلاه الممنوحة لجامعة القاهرة (الطرف الثاني) وفقا للعقد المؤرخ ٢٥ فبراير ٢٠٠٩ وملحقه وذلك لإنشاء وتشغيل ملحق لمستشفى الأطفال الجامعي التخصصي (أبو الريش الياباني) من خلال برنامج المعونة التابع للحكومة اليابانية و ذلك فترة اقصاها ٢٠١٧ بحد أقصى.

البند الثالث

يعتبر الجدول الزمني المرفق بهذا العقد، الخاص بمراحل إنشاء و تشغيل المشروع و الموقع عليه من الطرفين جزء لا يتجزأ من هذا العقد مكملا و متمما له.

البند الرابع

يتم تشكيل لجنة ثلاثية تمثل كلا من المؤسسة وجامعة القاهرة / كلية الطب قصر العيني ومن برنامج المعونة التابع للحكومة اليابانية. وتتضمن مهام اللجنة متابعة حسن تنفيذ الأعمال ومراحله و مراعاة ان المكون الرئيسى للخدمات الطبية بالمستشفى يتناسب مع الاحتياجات الحالية للمستشفيات اطفال ابو الريش وتلتزم هذه اللجنة الثلاثية برفع تقارير ربع سنوية عن نتائج الأعمال للعرض على الأطراف المعنية.

البند الخامس

بمجرد التوقيع على هذا العقد و ملحقاته يتم تسليم الأرض التي سيقام عليها المشروع للجامعة بموجب محضر استلام يرفق بهذا العقد و يعتبر جزء لا يتجزأ منه.

البند السادس

في حالة الإخلال بالجدول الزمني المحدد لإنهاء المشروع أو بأي من بنود العقد يحق للمؤسسة الطرف الأول استرداد الأرض موضوع العقد.

البند السابع

اتخذ كل من طرفي هذا العقد محلا مختارا لهما العنوان الثابت بصدر هذا العقد بحيث تعتبر جميع المراسلات التي ترسل من أيهما للأخر منتجة لكافة أثارها القانونية.

البند الثامن

حرر هذا العقد من (ثلاث نسخ) بيد كل طرف من طرفيه نسخة منه للعمل بموجبها و النسخة الثالثة تحفظ بخزينة العقود لدى البنك العربي الأفريقي الدولي.

الطرف الأول	الطرف الثاني
مؤسسة وفاء لمصر	جامعة القاهرة
و يمثلها: أ. حسن عبد الله	و يمثلها: ا.د. جابر نصار
التوقيع:	التوقيع:
خاتم الجهة: مؤسسة وفاء لمصر المشهرة برقم ٦٧٦٧ القاهرة	خاتم الجهة:

G.N F.K.

Contract of Agreement

On Wednesday 4th November 2014 this contract took place between each of:

First: "We Owe it to Egypt Institution" located in 5 Midan Saraya Kobra, Garden City- Cairo, the Institution is registered in Cairo Directorate of Social Affairs number 6767 year 2007.

The institution is legally represented by Mr. Hassan Abdullah as the Chairman of the Board of Trustees.

"We Owe it to Egypt Institution" will be mentioned in this contract as (" The institution"- the first party)

Second: "Cairo University" located in Orman- Giza.

Cairo University is legally represented by Dr. Gaber Nassar as the President of Cairo University and the Supreme President of the University's Children Hospital.

Cairo University in this contract will be mentioned as ("The University" the second party)

Introduction

On 25th February 2009, a land donation **contract** had took place between the institution and Cairo University for the land located on 4 Maamal Barood street- Sayeda Zaynab Municipality- Cairo Governorate, size 567.30 Meter square, this for the sake to build an extension building to the Cairo University Specialized Pediatric Hospital by JICA.

The SECOND TERM in the **contract** says:

" the two parties had agreed that in case of the Non-completion of the project and running it in maximum dead line end of December 2013, the donation contract shall be terminated, and the land will return back to the institution to be used by the institution in another charity use."

Since the time period had finished without establishing the project, therefore it is the institution's right to take back the donated land.

On date 13 July 2014, the institution received a letter from president of Cairo University (the second party) stating in it justifications and reasons -why did not the project established on time- he clarified that " since Egypt faced sensitive emergency situation during the past 3 years, the concerned parties could not have complete the project in the specific time". And the letter clarified too that JICA is serious in implementing the project and completing it by year 2017. The letter of the Cairo University ended by a request demanding the extension of the deadline to end in 2017, as the project is very important for Health in Egypt.

The institution "the first party", had informed the University on 20th August 2014 that Boards of Trustees of the Institution had agreed on the demand to extend the dead line to complete the project in 2017 on the below conditions:

Two parties had agreed on:

First term

The introduction in this contact is part of the contract and also the past donation contract dated 25th February 2009.

Second term

Board of trustees of "We Owe it to Egypt Institution" agreed upon the demand of the University(the second party) to extend the time period of the donation of the land mentioned above to Cairo University according to the contract dated 25th February 2009 to construct and run an extension building to the current Cairo University Specialized Pediatric Hospital through JICA, this to be completed in period maximum 2017.

Third Term

The signed Annex by the two parties which is attached to this contract **"the time schedule of the project"** which contains the time schedule of the phases of the project is a part of this contract.

Fourth Term

To create a committee with three parties (Cairo University Faculty of Medicine and "We Owe it to Egypt Foundation and JICA)

This committee's assignment is to follow up the project- the accuracy in achieving the project phases- this committee will give all of the 3 parties a report every quarter year.

Fifth Term

After signing this contract and the annex, the land of the project to be given to Cairo University, and Cairo University shall sign on receiving the land. This document to be an annex attached to the contract

Sixth Term

Both parties shall send each other official mails on the agreed upon addresses

Seventh Term

This contract has (3 copies) every party has a copy, and the third copy is kept in the Arab African International Bank Safe Box.

First Party	Second party
We Owe It To Egypt Institution	Cairo University
Represents it: Mr. Hassan Abdullah	Represents it: Dr. Gaber Nassr
Sign:	Sign:
Steal:	Steal:

ANNEX 10

WE OWE IT TO EGYPT

القاهرة فى ٢٦ نوفمبر ٢٠١٤

الأستاذ الدكتور / جابر نصار
رئيس جامعة القاهرة

تحية طيبة وبعد ،،،

بالإشارة الى كتابنا لسيادتكم بتاريخ ٢٠ أغسطس ٢٠١٤ بشأن تجديد الإتفاق الخاص بالأرض الكائنة برقم ٤ شارع معمل البارود قسم السيدة زينب والبالغ مسطحها ٥٦٧٫٣٠ متر مربع والمهداة من قبل مؤسسة وفاء لمصر لجامعة القاهرة بغرض إنشاء وتشغيل ملحق لمستشفى الأطفال الجامعى التخصصى (أبوالريش) من خلال هيئة التعاون الدولى اليابانية (الجايكا) وموافقة مجلس أمناء المؤسسة على مد المهلة للانتهاء من الإنشاء والتشغيل بنهاية عام ٢٠١٧ بدلاً من عام ٢٠١٣ كاستجابة لطلب جامعة القاهرة، وما تلى ذلك من إجراءات تجديد التعاقد بين جامعة القاهرة ومؤسسة وفاء لمصر والمؤرخ في ٤ نوفمبر٢٠١٤ .

وفى هذا السياق، تم الاطلاع على مضمون خطاب هيئة التعاون الدولى اليابانية (الجايكا) المؤرخ ١٢ نوفمبر ٢٠١٤ لعنايتكم والذى أفاد برفض البند الثانى المذكور فى عقد اهداء الأرض الذى يلزمها بإنشاء وتشغيل المشروع خلال فترة أقصاها عام ٢٠١٧. وفى هذا، أبدت الجايكا رغبتها فى استبدال هذا البند بأخر ينص على ان يتم البدء في انشاء المشروع بحلول عام ٢٠١٧ بشرط تعهد الجانب المصرى لكافة تعهداته. وذلك حتى يتسنى لهم ضمان عدم سحب الارض مرة أخرى من قبل مؤسسة وفاء لمصر في حال تأخر الجايكا في تشغيل المشروع خلال عام ٢٠١٧ لظروف غير متوقعة وخارجة عن الإرادة مثل ما حدث في الأعوام السابقة.

وعليه، يرجاء العلم ان تضمين هذا البند جاء وفقا للجدول الزمنى المقدم من الجايكا والذى يوضح ان المشروع سوف يكتمل بمنتصف ٢٠١٧ (مرفق للاستدلال) وحرصا على التزام وسرعة انجاز الأطراف لمهامهم نحو تاسيس مستشفى جامعى جديد للأطفال فى مصر حتى لا يتعرقل ويتباطىء المشروع على النحو الذى حدث منذ عام ٢٠٠٩.

تعى مؤسسة وفاء لمصر أن مد الفترة الزمنية ينتج عنه تجميد قيمة الأصل ويؤدى الى حرمان الجامعة ومستشفيات الأطفال الجامعية (أبو الريش) من الاستفادة من العائد المادى والمجتمعى لهذا الاستثمار.

ان مؤسسة وفاء لمصر - وهى جادة ومخلصة فى سعيها لتطوير المستشفيات الجامعية للأطفال – لم تتوان فى مد الفترة الزمنية وتجديد إهداء الأرض حتى تتمكن الجامعة من تفعيل المنحة اليابانية لتاسيس وبناء مستشفى للأطفال ومركز التدريب الملحق. وعليه لا يوجد هناك نية لدى المؤسسه لسحب الأرض حال توافر جدية والتزام من الأطراف جميعها. ولو كان هناك رغبة لسحب الأرض، لما قامت المؤسسة بتجديد التعاقد مؤخرا.

وحرصا من مؤسسة وفاء لمصر على حسن تنفيذ المشروع وتفهما للاعتبارات التى أبرزها الجانب اليابانى، نقترح إضافة بند ينص على أنه فى حالة وجود ظرف طارئ وقهرى خارج سيطرة الجانب اليابانى سوف يتم احتساب المدة الزمنية التى توقف خلالها المشروع، ومد المشروع بالفترة نفسها.

وختاما فإننا نؤكد لسيادتكم حرصنا على تاسيس مستشفى تخدم طب الأطفال على أعلى مستوى سواء بتمويل من الحكومة اليابانية أو اتاحة تمويل ذاتى فى حالة عدم الاتفاق مع الجانب اليابانى. وفى هذه الحالة، يمكن للحكومة المصرية وجامعة القاهرة الاستفادة وتخصيص المنحة فى اوجه أخرى كما يراه سيادتكم.

وتفضلوا بقبول فائق الاحترام ،،،

حسن عبد الله
رئيس مجلس الأمناء

يعتمد ويقيد ملحقا للعقد المبرم
بين الشركة العربية الأفريقية الدولية
والقاهرة
٢٠١٤/١١/٢٠

٥ ميدان السراى الكبرى - جاردن سيتى ص.ب: ٦٠ مجلس الشعب (١١٥١٦) القاهرة - جمهورية مصر العربية
تليفون: ٢٧٩١٢٧١٨ (٢٠٢) فاكس: ٢٧٩٤٦٠٤٤ (٢٠٢) محمول: ٠١٠٠٠٣٥٥٥٣
5 Midan Al Saray Al Kobra, Garden City, Cairo, Egypt P.O.Box: 60 Magless El Shaab (11516) Tel.: (202) 2791-2718
Fax: (202) 2794-6044 Mobile: 010-003-5553 Website: www.oweegypt.org E-mail: info@oweegypt.org

(On the Top of the letter a Steal: received by Cairo University on 30th November 2014)

WE OWE IT TO EGYPT

Cairo, 26 November 2014

Dr. Gaber Nassar

President of Cairo University

Greetings

Referring to our letter to Your Excellency on 20thAugust 2014 regarding the renew of the agreement upon the land located in 4 Maamal Barood street, Sayeda Zainab, with size 567.30 meter square, the land which is considered a grant from " We owe it to Egypt institution" to Cairo University for the sake to build and run an extension building to the Cairo University Pediatric Hospital (Abo EL Rish Hospital) through JICA, Our Board of Trustees of the institution had agreed to extend the deadline to finish construction and running the hospital by the end of year 2017 instead of 2013. As a respond to a request by Cairo University we renewed the contract between Cairo University and We Owe It To Egypt on date 4th November 2014.

In this frame, a letter from JICA dated 12thNovember 2014 was sent to your Excellency refusing the second article in the contract of the grant agreement which obligate JICA to complete construction and run the hospital by maximum 2017, where JICA demanded to amend this article and put another one which says: to start project construction by 2017 in condition the Egyptian side to fulfill their undertaking. Saying that they want to grantee that our institution would not withdraw the land again in case JICA is late in completing the project within 2017 for unexpected circumstances, out of any body's control as what happened in the last years.

Therefore, kindly notice that we put this second article depending on the time table we received from JICA, which explains that the project will be completed by mid 2017, we put this article to ensure the quick action from the related parties in the project to construct a hospital for children in Egypt, because we don't want the project to face obstruction and slowness like what happened on 2009.

The institution is aware that extending the time period results is freezing the value of the asset, and leads the university and the university children hospitals not to take advantage of the financial and societal return for this investment.

Our institution "We Owe it to Egypt" is -serious and sincere in developing university children hospitals- we did not hesitate to renew the donation of the land as a grant, so that to give the university the chance to use the Japanese aid to construct a children hospital and attached in it a training center. Therefore, kindly be noticed that we do not have the intention to withdraw the land (as long as we see seriousness from all related parties to the

G.M F.K

project). And also kindly notice that, if we had the intention to withdraw the land, we would not had renewed the contract recently.

Because "We Owe It To Egypt" is keen to implement the project, and understanding the Japanese side concerns, we suggest to add an article says: in unforeseen and emergency circumstances, out of control of the Japanese side, the period which the project would stop in it, will be calculated in order to be extended later in the project .

At the end, we ensure to Your Excellency that we are keen to construct a hospital which serve the pediatric on very high level, even from the Japanese Government or from others, in case you did not reach an agreement with Japanese side.

At that case Egyptian Government and Cairo University can use this grant land as Your Excellency decides.

Hassan Abudalla

Chairman of Board of Trustees

(on the bottom of the letter Dr. Gaber had signed the following: I accept this letter as a summary of the contract between the Arab African International Bank and Cairo University)

Gaber Nassar 11/30

F.K.

ANNEX 11

مكتب رئيس الجامعة

السيد الأستاذ / حسن عبد الله

رئيس مجلس أمناء مؤسسة وفاءً لمصر

تحية طيبه وبعد ،،،

تلقيت خطاب سيادتكم الوارد الينا بتاريخ ٢٦ نوفمبر ٢٠١٤ رداً على خطابنا برقم ٦٤٢ بتاريخ ٢٠١٤/١١/١٧ والذي ورد فيه تحفظ الجانب الياباني على أحد بنود البروتوكول الموقع بين الجامعة والمؤسسة بخصوص أرض إنشاء ملحق بمستشفى الأطفال (أبو الريش الياباني) والذي تضمن استجابة كريمة للتعديل المقترح بحيث يصبح النص كما يلي "**في حالة وجود ظرف طارىء وقهري خارج سيطرة الجانب الياباني سوف يتم احتساب المدة الزمنية التي توقف خلالها المشروع ومد أمد المشروع بالفترة نفسها**".

وجامعة القاهرة إذ تشكركم على حسن التعاون ورغبتكم الصادقة في إنشاء هذا المشروع الحيوي والذي يمثل إضافه ممتازة لمستشفى أبو الريش الياباني للأطفال وتؤكد أنها تعتبر هذا الخطاب ملحقاً وجزءً لايتجزء من العقد المبرم بين مؤسسة وفاءً لمصر وجامعة القاهرة بشأن الأرض المهداه من قبل المؤسسة للجامعة لإقامة المشروع عليها من خلال هيئة التعاون الدولي اليابانيه (الجايكا).

وتفضلوا بقبول فائق الاحترام ،،

رئيس الجامعة

(أ.د. جابر جاد نصار)

تحريراً في ٢٠١٤/١٢/٢

جامعة القاهرة - الأورمان - جيزة - ج.م.ع تليفون : ٣٥٧٢٧٩٤٣ - ٣٥٧٢٩٥٨٤ فاكس : ٠٠٢ ٠٢ ٣٥٦٨٨٨٨٤

E-mail : Gnassar@cu.edu.eg

Office of President of Cairo University

Cairo, 2nd December 2014

Mr. Hassan Abdalla

Chairman of Board of Trustees of WE OWE IT TO EGYPT Foundation

Greetings

I received Your letter dated 26 November 2014 replying my letter to Your Excellency on 17th November 2014 number 642, regarding the refusal of the Japanese side against one of the articles inside the protocol which is signed between your Foundation and the University regarding the land for constructing of an extension building to the Cairo University Pediatric Hospital (Abo EL Rish Hospital). The letter included a kind & generous response to make the change to be like the follow:

" In unforeseen and emergency circumstances, out of control of the Japanese side, the period which the project would stop in it, will be calculated in order to be extended later in the project" .

Cairo University thanks your kind cooperation and sincere intention to implement this very important project which considers an addition to the Abo El Rish Children Hospital.

The University considers this letter an annex and a part of the signed contract between WE OWE IT TO EGYPT INSTITION and Cairo University regarding the donated land by the foundation to the University to implement the mentioned above project through Japan International Cooperation Agency JICA

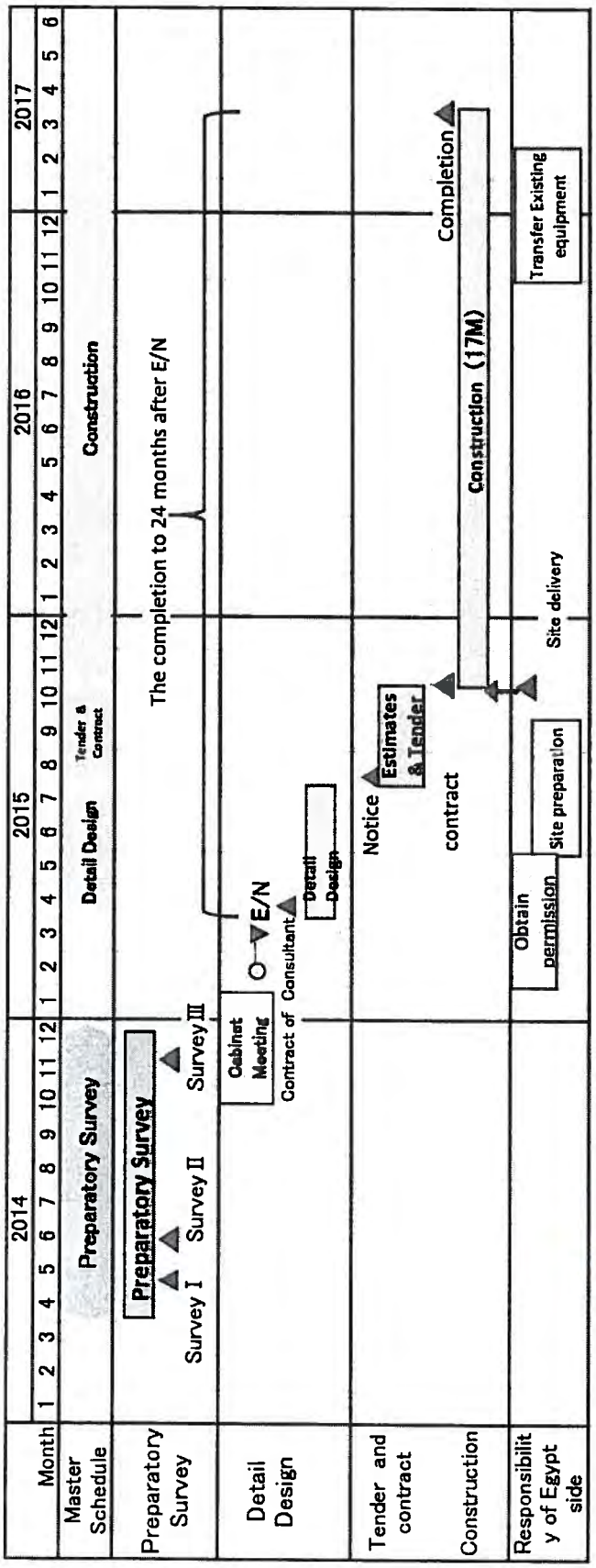
Gaber Nassar 12/02/2014

President

Cairo University

ANNEX 12

Tentative Schedule of the Project



5. List of reference materials

Number	Name of Document	Original/Copy	Language	Issuing authority
1	National Acceleration Plan for Child and Maternal Health	Copy	English	Ministry of Health and Population collaboration with WHO
2	Guideline of Waste Management	Copy	English	Ministry of Health and Population
3	PROJECT APPRAISAL DOCUMENT FOR A PROPOSED CREDIT IN THE AMOUNT OF SDR 66.8 MILLION (US$90.0 MILLION EQUIVALENT) TO THE ARAB REPUBLIC OF EGYPT FOR A HEALTH SECTOR REFORM PROGRAM	Copy	English	The World Bank
4	Country Cooperation Strategy for WHO and Egypt (2010-2014)	Copy	English	WHO