

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

SCIENCE AND TECHNOLOGY COMMISSION OF
SHANGHAI MUNICIPAL PEOPLE'S GOVERNMENT,
PEOPLE'S REPUBLIC OF CHINA

**DETAILED DESIGN
OF
SHANGHAI PUDONG INTERNATIONAL
AIRPORT
FINAL REPORT**

**VOLUME III
TENDER DOCUMENT (I OF 3)**

**PART I PREQUALIFICATION DOCUMENT
/INVITATION TO TENDER**

PART II INSTRUCTION TO TENDERERS

PART III CONDITION OF CONTRACT

JICA LIBRARY



J 1140868 (9)

SEPTEMBER 1997

**NIPPON KOEI CO., LTD.
NIKKEN SEKKEI LTD.**

SSF

CR(3)

97-108

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

SCIENCE AND TECHNOLOGY COMMISSION OF
SHANGHAI MUNICIPAL PEOPLE'S GOVERNMENT,
PEOPLE'S REPUBLIC OF CHINA

**DETAILED DESIGN
OF
SHANGHAI PUDONG INTERNATIONAL
AIRPORT
FINAL REPORT**

**VOLUME III
TENDER DOCUMENT (1 OF 3)**

**PART I PREQUALIFICATION DOCUMENT
/INVITATION TO TENDER
PART II INSTRUCTION TO TENDERERS
PART III CONDITION OF CONTRACT**

SEPTEMBER 1997

**NIPPON KOEI CO., LTD.
NIKKEN SEKKEI LTD.**



1140868 [9]



**DETAIL DESIGN
OF
SHANGHAI PUDONG INTERNATIONAL AIRPORT PROJECT
FINAL REPORT**

VOLUME III TENDER DOCUMENT

GENERAL CONTENTS

[1 of 3]

PART I Prequalification Document/Invitation to Tender

PART II Instruction to Tenderers

PART II-1 Airside Civil Works, Fuel Supply System, Fire Fighting and Rescue Facilities

PART II-2 Airfield Lighting System

PART II-3 Equipment Purchase

PART III Condition of Contract

PART III-1 Airside Civil Works, Fuel Supply System, Fire Fighting and Rescue Facilities

PART III-2 Airfield Lighting System

PART III-3 Equipment Purchase (Fire Fighting and Rescue Facilities)

[2 of 3]

PART IV Specification

PART IV-1 Airside Civil Works

Section 1 General Provision

Section 2 Special Provision

PART IV-2 Airfield Lighting System

Section 1 General Provision

Section 2 Special Provision

PART IV-3 Fuel Supply System

Section 1 General Provision

Section 2 Special Provision

PART IV-4 Fire Fighting and Rescue Facilities

Section 1 General Provision

Section 2 Special Provision

PART IV-5 Equipment Purchase (Fire Fighting and Rescue Facilities)

Section 1 General Provision

Section 2 Special Provision

[3 of 3]

PART V Bill of Quantities

PART V-1 Airside Civil Works

PART V-2 Airfield Lighting System

PART V-3 Fuel Supply System

PART V-4 Fire Fighting and Rescue Facilities

Note) The dotted portion is included in this book.



JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

SCIENCE AND TECHNOLOGY COMMISSION OF
SHANGHAI MUNICIPAL PEOPLE'S GOVERNMENT,
PEOPLE'S REPUBLIC OF CHINA

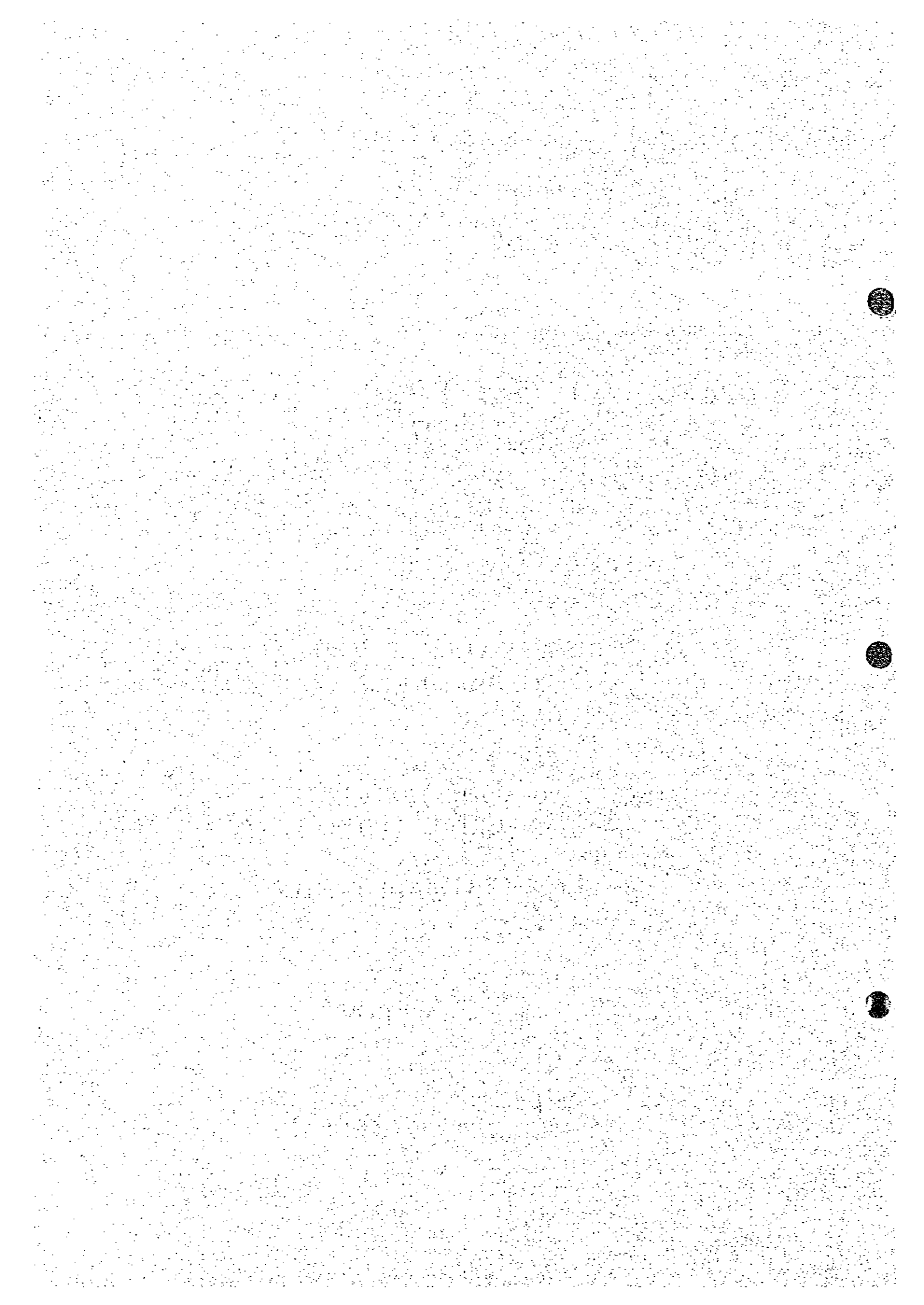
**DETAILED DESIGN
OF
SHANGHAI PUDONG INTERNATIONAL
AIRPORT
FINAL REPORT**

**VOLUME III
TENDER DOCUMENT**

**PART I
PREQUALIFICATION DOCUMENT/
INVITATION TO TENDER
FOR
AIRFIELD LIGHTING SYSTEM**

SEPTEMBER 1997

**NIPPON KOEI CO., LTD.
NIKKEN SEKKEI LTD.**



**PEOPLE'S REPUBLIC OF CHINA
SHANHAI MUNICIPAL PEOPLE'S GOVERNMENT
SHANGHAI PUDONG INTERNATIONAL AIRPORT PROJECT
FINAL REPORT**

**TENDER DOCUMENT
PART I
PREQUALIFICATION DOCUMENTS
AND
INVITATION TO TENDER**

TABLE OF CONTENTS

SECTION 1. INFORMATION TO APPLICANTS FOR PREQUALIFICATION	
1.1 General.....	1
1.2 Submission of Applications for Prequalification.....	1
1.3 Prequalification Questionnaire.....	3
1.4 Scope of Project Works	5
1.5 General Contractual Requirements.....	5
SECTION 2. LETTER OF APPLICATION.....	7
SECTION 3. STRUCTURE AND ORGANIZATION	
3.1 All Applicant Companies.....	8
3.2 Joint Venture Company	9
3.3 Joint Operation.....	10
SECTION 4. RESOURCES	
4.1 Sub-Contractors	11
4.2 Manpower	12
4.3 Key Personnel	13
4.4 Plant and Equipment.....	14
4.5 Planning and Programming Facilities	15

SECTION 5. EXPERIENCE

5.1 Experience : Completed in Last Five (5) years,
Values US\$ 25 - 50 Million..... 16

5.2 Experience : Work completed in Last Five (5) Years,
Values US\$ 50 - 100 Million..... 17

5.3 Experience: Work Completed in Last Five (5) Years,
Values US\$ 100 - 200 Million..... 18

5.4 Experience: Work Completed in Last Five (5) Years,
Values Over US\$ 200 Million 19

5.5 Experience: Airport Work completed in
Last Ten (10) Years..... 20

5.6 Experience: Current Work..... 21

SECTION 6. FINANCIAL

6.1 Annual Statement..... 22

6.2 General Statement..... 23

6.3 Credit Facilities..... 24

SECTION 7. ADDITIONAL INFORMATION..... 25

APPENDIX EVALUATION OF APPLICANTS

ATTACHED DRAWINGS

A-1. Project Location Map..... 26

A-2. Airport Layout Plan..... 28

A-3. Scope of Construction Works..... 29

A-4. Overall Construction Schedule 31

SECTION 1 INFORMATION TO APPLICANTS FOR PREQUALIFICATION

1.1 General

The Shanghai Municipal People's Government intends to construct a new Shanghai Pudong International Airport. The Shanghai Pudong International Airport Construction Headquarters (SPIACH) will receive applicants for the prequalification of contractors for the construction work which is to be offered for tender in the middle of 1997.

The tender will be offered only to a number of suitably prequalified contracting firms or associations of firms who are considered to be sufficiently experienced and have adequate expertise and resources to undertake the contract. A schedule of the incorporated works is given in item 1.4.

The Government obtained a Loan Agreement (No. _____ dated _____) from the Overseas Economic Cooperation Fund (OECF) of Japan toward the cost of the Project. Conditions of the loan are that the eligible source countries of goods and services are all countries and areas.

Contracting firms or associations of firms, wishing to be considered should complete the Prequalification Documents and return them, duly completed and signed on or before the date and time stated in the Announcement No. _____ of these documents, to:

The Tender Committee for
Shanghai Pudong International Airport Project
220 Si Chuan Road (M)
Shanghai, China

Contractors, if prequalified, will be invited to submit tenders for the works based on documents containing the completed detailed design and specifications.

1.2 Submission of Applications for Prequalification

1. Applicants may be single contracting companies, joint ventures or joint operations.
2. A Joint Venture is defined by the China-Foreign Joint Venture Enterprises Law (1990) as a company registered in China which has as its shareholders, one or more contractors native to countries other than China.
3. A Joint Operation comprises two or more contractors (local or local with foreign) joining together for the purpose of prequalification, tendering and executing a

particular contract upon the completion of which the association terminates.

4. The Leading Firm of a Joint Operation shall be a Contractor and must have a majority of shares relative to the Scope of Works.
5. To be considered for prequalification foreign contracting firms are required to join with suitably qualified Chinese contractors and are required to be registered in China.
6. Applications shall be submitted in four sets of Prequalification Documents, one set marked "original" and three sets marked "copy". All sets shall be placed in one sealed envelope marked "Prequalification Document for Shanghai Pudong International Airport Construction Project". The name and mailing address of the applicant shall also be indicated on the envelope.
7. The envelope shall be marked for the attention of the Tender Committee and delivered to the Shanghai Pudong International Airport Construction Headquarters, on the date and by the time stated in the announcement of these documents. Applications which are received late will not be considered and will be returned unopened.
8. Applications shall be submitted only in the format of the prequalification attached hereto. Responses must be provided for each item included in Forms A-S inclusive, in the event that an applicant considers it inappropriate to respond to a particular item this shall be completed as "not applicable". If necessary, additional pages suitably identified may be attached to the submission.
9. All information requested shall be provided in the English language. Information in any other language shall be accompanied by its translation in English, in which case for purposes of interpretation of the information, the "original" English translation shall be governed.
10. Each sheet, as appropriate, shall be duly signed and stamped by the applicant or a person duly authorized to sign on behalf of the applicant and the power attorney shall be attached.
11. All documents submitted by the applicants shall be treated as confidential, and will not be returned.
12. SPIACH will inform all applicants of the result of their application SPIACH reserves the right to reject or accept any application and to annul the prequalification process and reject all applications, without thereby incurring any liability to the affected applicants or any obligation to inform the applicants of the grounds for the action of

SPIACH.

1.3 Prequalification Questionnaire

1. The prequalification questionnaire consists of nineteen forms as follows:

Form A Letter of Application.

Form B All Applicant Companies.

Form C Joint Venture.

Form D Joint Operation.

Form E Subcontractors.

Form F Manpower.

Form G Key Personnel.

Form H Plant and Equipment.

Form I Planning and Programming.

Form J Experience in Last Five (5) Years Value US\$ 25-50 Million.

Form K Experience in Last Five (5) Years Value US\$ 50-100 Million.

Form L Experience in Last Five (5) Years Value US\$ 100-200 Million.

Form M Experience in Last Five (5) Years Value Over US\$ 200 Million.

Form N Experience of Airport Work Completed in Last Ten (10) Years.

Form O Current Work.

Form P Annual Statement.

Form Q General Statement.

Form R Credit Facilities.

Form S Additional Information (Power Attorney, etc.).

2. Single company applicants, shall complete Forms A and B, plus E to S inclusive. Forms A, B, F, G, H and N to S inclusive for each major subcontractor nominated in Form E, for example the Mechanical and Electrical Works shall be clearly identified and included in the applicant's submission.
3. The Joint Venture leading partner shall complete Forms A, B and C, plus E to S inclusive on behalf of the Joint Venture. Forms for subcontractors nominated in Form E shall be included as stated in Section 1.3.2 above. In addition each member of the Joint Venture shall complete and attach to the Joint Venture submission Forms A, B, F, G, H and J to S inclusive. A copy of the Joint Venture Agreement must be attached and all documents submitted in one package.

4. If a Joint Operation has not been formed but intends to do so if invited to submit a Tender, the nominated leading company shall complete Forms A and D, plus E to S inclusive on behalf of the Joint Operation and shall provide evidence of intent to form a Joint Operation from each member company. Forms for subcontractors nominated in form E shall be included as stated in Section 1.3.2 above. In addition each member of the Joint Operation shall complete and attach to the Joint Operation submission Forms A, B, F, G, H, and J to S inclusive. All documents shall be submitted in one package and each of the Joint Operation members must prequalify.

Joint Operation comprising two or more contractors (local or local with foreign) joining together for the purpose of tendering and executing a particular contract are required to prequalify. If a joint operation has not been formed, but intends to do so, if invited to tender, each of the listed members are required so submit the forms in one package and each listed member must prequalify.

5. In Forms J to O applicants are requested to state whether they acted as main contractor (MC) or subcontractor (SC).
6. To accompany Form J to O inclusive, letters or certificates from the owner(s) of the project concerned, signifying the quality of the work and the satisfaction with the contractor must be submitted. This requirement also applies to the major subcontractors noted in item 2, 3 and 4 above.
7. Should applicants have any queries regarding the Prequalification Documents, these should be submitted in writing to the following address.

Shanghai Pudong International Airport Construction Headquarters
220 St Chuan Road (M)
Shanghai, China 200002

All queries shall be marked clearly on the outside of the envelope "Prequalification Document for Shanghai Pudong International Airport Construction Project" and shall be received by SPIACH not later than 9 working days before the date of return for the Prequalification Documents.

A copy of all questions together with the replies will be distributed, not later than 7 days before the date of return, to all participating applicants.

8. It should be noted that from the date of submitting the Prequalification document, until the issuance of the Defects Liability Certificate, or the return of the Tender Bond in the case of unsuccessful tenderers, there shall be no change whatsoever in the type, formation and nature of a company or association of companies selected by this prequalification process.

9. A specialist subcontractor may be included in any number of prequalification applicants provided that he is not part of an individual applicants Joint Venture or Joint Operation organization.
10. A company shall only be included in one Joint Operation application.

1.4 Scope of Project Works

1. Should any applicant wish to visit the Project site during the prequalification stage, arrangements for site visits may be made through the SPIACH in Shanghai, all costs connected with visits will be to the applicant's account.
2. The scope of works comprises : the following works, system and facilities :

Airside Civil Works, Airfield Lighting System, Fuel Supply System, and Fire Fighting and Rescue Facilities
3. The following Drawings are attached for information :

A-1. Project Location Map
A-2. Airport Layout Plan
A-3. Scope of Construction Works
A-4. Overall Construction Schedule

1.5 General Contractual Requirements

1. The Contract will be based upon internationally recognized Conditions of Contract with conditions of particular application for the works.
2. The Contract Price shall be stated in the Letter of Acceptance and shall not be subject to any adjustment in respect of rise or fall in the cost of labour, materials or any other matters affecting the cost of execution of the Contract. The quantities set out in the Bills of Quantities (or Schedules of Prices) shall be used to ascertain the value of Interim Payment Certificates. The actual quantities of Work undertaken shall be determined by measurement and the value of Works adjusted accordingly.
3. Payment will be in Japanese Yen aided by the loan from OECF and in China Renminbi.
4. All tenderers will be required to submit with their tenders a Tender Bond, the

successful tenderer will be required to provide a Performance Bond before the Contract is signed.

5. General banking institutions registered in the Bank of China and any foreign bank recommend by the Bank of China to issue tender and performance bonds.
6. A twenty (20) percent advance payment will be made to the successful tenderer upon receipt of an advance payment bond.
7. The Contract will be governed by the Laws of the People's Republic of China and any disputes arising which cannot be settled by amicable agreement shall be finally settled under the Rules and Procedures of the Chinese Arbitration Agency. Such arbitration shall take place in Shanghai, China and be conducted in the Chinese language.
8. The language of the Contract will be English.
9. It is anticipated that the Contract Period will be _____ months (excluding Defects Liability Period).

**SHANGHAI MUNICIPAL PEOPLE'S GOVERNMENT
SHANGHAI PUDONG INTERNATIONAL AIRPORT CONSTRUCTION HEADQUARTERS**

Prequalification Questionnaire

Form A

Project : Shanghai Pudong International Airport Project (_____)

Applicant : _____

SECTION 2. LETTER OF APPLICATION.

This letter shall be duly signed and stamped by the applicant(s) or a person duly authorized to sign on behalf of the applicant(s). For single contracting companies the signatory's authority to sign must be attached. For joint ventures or joint operations such authorization shall be indicated by a written power-of-attorney from each of the partners or members and similarly attached.

Chief Commander
Shanghai Pudong International Airport Construction Headquarters
220 Si Chuan Road (M)
Shanghai
China 200002

Registered address: _____

Telephone: _____

Fax: _____

Dear Sir,

I/We hereby apply to be qualified with the Shanghai Pudong International Airport Construction Headquarters (SPIACH) as a prospective tenderer/subcontractor *for Shanghai Pudong International Airport Construction Project.

I/We authorize SPIACH, or its authorized representatives to conduct any investigation to verify the statements, documents and other information submitted and to obtain clarification or other information as required on the technical, financial and experience aspects of this application.

The name, position, telephone and facsimile numbers of the person who may be contacted for further information, if required, are as follows.

Name : _____
Position : _____
Tel. : _____

Fax: _____

I/We declare that the statements made and the information provided herein are complete, true and correct in every detail.

Respectfully
(Authorized representative of applicant)

Date:

* delete as appropriate

**SHANGHAI MUNICIPAL PEOPLE'S GOVERNMENT
SHANGHAI PUDONG INTERNATIONAL AIRPORT CONSTRUCTION HEADQUARTERS**

Prequalification Questionnaire

Form B

Project : Shanghai Pudong International Airport Project (_____)

Applicant : _____

SECTION 3.1. STRUCTURE AND ORGANIZATION: ALL APPLICANT COMPANIES.

1. Foreign contractors are required to attach a copy of their certificates of registration and representation for construction services in accordance with the State Administration for Industry and Commerce regulations and a statement of ownership, together with the similar certificates applicable to their country of registration, as stated in item 2).
2. Chinese Single contractors, Joint Venture partners and Joint Operation members are required, in accordance with the Shanghai City Construction Works Tender Control Provisional Act (1988), to attach their:
 - 1) Permit for Operation.
 - 2) Company Capital Certificate

The applicants registered in places other than Shanghai are requested to attach either one of the following 3) or 4) in addition to above 1) and 2)

- 3) Permit for Construction Works, or
 - 4) Tender Application Approval Noticeissued by relevant authorities.
3. Type of Organization of Applicant

4. Establishment Year and Country of Incorporation

5. Local Office (China)
Address : _____
Tel. No. : _____
Fax No. : _____
6. Head Office
Address : _____
Tel. No. : _____
Fax No. : _____
7. If the applicant is a subsidiary of or linked with any other company:
 - 1) Describe the relationship with the associate or holding company.
 - 2) Identify common directorships.
 - 3) Identify the legal limits of liability of the company.
 - 4) Provide an organization chart(s) showing the Company or Group structure.
8. List by name the owner and all executive directors of the company, include nationality, responsibility area, years of construction experience, years with the company.

**SHANGHAI MUNICIPAL PEOPLE'S GOVERNMENT
SHANGHAI PUDONG INTERNATIONAL AIRPORT CONSTRUCTION HEADQUARTERS**

Prequalification Questionnaire

Form C

Project : Shanghai Pudong International Airport Project (_____)

Applicant : _____

SECTION 3.2. STRUCTURE AND ORGANIZATION: JOINT VENTURE COMPANY.

The leading joint venture partner identified in Item 7 below shall complete Form C and provide the latest copy of the Articles of Agreement of the Joint Venture giving details of the respective shareholdings. Each partner identified in Item 4 below is required to complete the forms stated in Section 1.3 item 3.

1. Name of Joint Venture Company

2. Types of Organization of Joint Venture Partner

3. Establishment Year and Country of Incorporation

4. Make up of Joint Venture Company

Names of Shareholders	Nationality	Shareholding as a percentage of the J.V.
_____	_____	_____
_____	_____	_____
_____	_____	_____

5. Local Office (China)

Address : _____

Tel. No. : _____

Fax. No. : _____

6. Head Office

Address : _____

Tel. No. : _____

Fax. No. : _____

7. Name of Joint Venture lead Partner

8. Proposed distribution of responsibilities between Partners (relative to the Scope of the Project Works)

9. Joint Venture Agreement

Note: The Joint Venture lead partner shall be a Contractor and shall have a majority.

**SHANGHAI MUNICIPAL PEOPLE'S GOVERNMENT
SHANGHAI PUDONG INTERNATIONAL AIRPORT CONSTRUCTION HEADQUARTERS**

Prequalification Questionnaire

Form D

Project : Shanghai Pudong International Airport Project (_____)

Applicant : _____

SECTION 3.3. STRUCTURE AND ORGANIZATION: JOINT OPERATION COMPANY.

Joint operations comprising two or more contractors (local or local with foreign) joining together for the purpose of tendering and executing a particular contract are required to prequalify. If a joint operation has not been formed, but intends to do so, if invited to tender, each of the listed members are required to submit the forms in one package and each listed member must prequalify.

1. In addition to the requirements shown following each member of the joint operation is required to complete the forms stated in Section 1.3 item 4.
2. **Leading Company** : _____
Name of Company : _____
Main Line of Business : _____
Name(s) of Representative : _____
Tel. No. Fax. No. : _____
Office Address : _____
3. **Member Company (1)** : _____
Name of Company : _____
Main Line of Business : _____
Name(s) of Representative : _____
Tel. No. Fax. No. : _____
Office Address : _____
4. **Member Company (2)** : _____
Name of Company : _____
Main Line of Business : _____
Name(s) of Representative : _____
Tel. No. Fax. No. : _____
Office Address : _____
5. Each member company of the joint operation shall provide:
 - 1) The establishment date and brief history of the company
 - 2) A summary of the company core business and associated business activities
 - 3) The Leading Company shall be a Contractor and shall provide evidence of intent to form a Joint Operation from each member company
6. Proposed distribution of responsibilities between the joint operation companies (relative to the Scope of the Works). The (proposed) Joint Venture Agreement which includes the percentage financial share relative to the Scope of Works of each partner must be attached.
7. Each member company shall provide a written power attorney authorizing the leading company authorized representative to act on their behalf.

Attach additional pages as necessary identifying each appropriately.

**SHANGHAI MUNICIPAL PEOPLE'S GOVERNMENT
SHANGHAI PUDONG INTERNATIONAL AIRPORT CONSTRUCTION HEADQUARTERS**

Prequalification Questionnaire

Form E

Project : Shanghai Pudong International Airport Project (_____)

Applicant : _____

SECTION 4.1. RESOURCES: SUBCONTRACTORS

If the applicant intends to employ subcontractors to perform specific sections of the works on behalf of the applicant please list such works and if known, please state the name, address, brief description, experience and work of the subcontractor.

1. The information given in response to this item will form an important part of the evaluation process and responses should be supplemented with attachments identifying similar work on previous projects. Major subcontractors, specifically for Mechanical and Electrical works, are required to complete the forms stated in Section 1.3 item 2.

Subcontractor (1)

Name and Address : _____
Description : _____
Experience : _____
Works to be Contracted : _____

Subcontractor (2)

Name and Address : _____
Description : _____
Experience : _____
Works to be Contracted : _____

Subcontractor (3)

Name and Address : _____
Description : _____
Experience : _____
Works to be Contracted : _____

Attach additional pages as necessary identifying each appropriately.

**SHANGHAI MUNICIPAL PEOPLE'S GOVERNMENT
SHANGHAI PUDONG INTERNATIONAL AIRPORT CONSTRUCTION HEADQUARTERS**

Prequalification Questionnaire

Form F

Project : Shanghai Pudong International Airport Project (_____)

Applicant : _____

SECTION 4.2. RESOURCES: MANPOWER

List by category the total number of employees of the company and the employees resident in China. List by name and complete the biodata as required, including English or Chinese language capabilities, of the personnel with relevant experience, available for Shanghai Pudong International Airport Construction Project. Detailed CV's of available personnel are to be included in Section 4.3.

1. Total number of currently employed personnel

	Executive Directors	General Management	Administrative	Technical Management	Site Supervision	Work Force
Total Employees						
Employees based in China						

2. Available personnel with relevant experience

Category	Name	Nationality	Spoken/written English/Chinese	Qualification	Years with Company	Relevant experience, including contract values
Executive Directors						
Site Manager						
Administrative						
Technical Manager						
Site Supervision						

Attach additional pages as necessary identifying each appropriately.

**SHANGHAI MUNICIPAL PEOPLE'S GOVERNMENT
SHANGHAI PUDONG INTERNATIONAL AIRPORT CONSTRUCTION HEADQUARTERS**

Prequalification Questionnaire

Form G

Project : Shanghai Pudong International Airport Project (_____)

Applicant : _____

SECTION 4.3. RESOURCES: KEY PERSONNEL

The technical qualification and experience of key staff will form an important part of the evaluation process. A resume for each of the key staff categories shown in form F item 2 should be attached.

1. The resume for each key person available to be assigned to the project should include the following information.

- a. Proposed position : _____
- b. Name : _____
- c. Date of birth : _____
- d. Nationality : _____
- e. Education : _____
(photocopy of diploma/certification)
- f. Language capability : _____
- g. Years of experience : _____
(state specialty)
- h. Countries where : _____
experience obtained
- i. Relevant experience : _____
(state value of projects in US\$, duration of works and position(s) held)
- j. Employment history : _____
(state year, company, position held, works description and responsibilities)

**SHANGHAI MUNICIPAL PEOPLE'S GOVERNMENT
SHANGHAI PUDONG INTERNATIONAL AIRPORT CONSTRUCTION HEADQUARTERS**

Prequalification Questionnaire

Form H

Project : Shanghai Pudong International Airport Project (_____)

Applicant : _____

SECTION 4.4. RESOURCES: PLANT AND EQUIPMENT

Based upon the information provided in Section 1 of the Prequalification Document, indicate the main plant and equipment considered by the applicant to be necessary and available for undertaking the works and whether this plant and equipment is owned by the company, will be purchased or hired.

The response given in this section will form an important part of the evaluation process, generalized or inadequate responses are likely to lead to a company not prequalifying.

1. Plant and Equipment

Description (Type, Makes, Model)	Capacity	Quantity	Year of Manufacture/ Condition	Present Value	Present Location	Owned, Leased or to be Purchased	Total No. of Unit of this Description Owned

Attach additional pages as necessary identifying each appropriately.

**SHANGHAI MUNICIPAL PEOPLE'S GOVERNMENT
SHANGHAI PUDONG INTERNATIONAL AIRPORT CONSTRUCTION HEADQUARTERS**

Prequalification Questionnaire

Form I

Project : Shanghai Pudong International Airport Project (_____)

Applicant : _____

SECTION 4.5. RESOURCES: PLANNING AND PROGRAMMING FACILITIES

Schedule the hardware and specify the project management software considered necessary by the applicant to plan and programme the works, manage the direct works, the sub-contractor interfaces and monitor the progress of the works. Provide an outline statement of the programme management system.

1. Hardware

	Computer Terminals	Printers	Plotters (state size)	Modem/ Network
On Site				
Off Site				

2. Software (Specify)

3. Project Execution Plan (PEP)

Based upon the information provided in Section 1 of the Prequalification document the applicant is required to provide an outline PEP in the following format.

- 1) **Project Strategy:** outline statement of the organization and methods to be employed by the applicant to undertake the work.
- 2) **Organization Chart:** preliminary site organization chart identifying communication lines between the site management and the head/branch office, the on site direct works operations, sub-contractors, suppliers and the supervising Consulting Engineer.
- 3) **Responsibilities of key personnel:** identify key personnel with management responsibilities by activity or section of work.
- 4) **Risk Management:** outline the management methodologies used to identify, evaluate and control the technical and programme elements of the work.
- 5) **Planning and Programme Control:** See above item 1.
- 6) **Quality management System:** provide an outline description of the Quality System, organization and procedures in use and identify the accreditation authority.
- 7) **Project Safety Plan:** provide a statement outlining the Health and Safety plan operated by the company.

**SHANGHAI MUNICIPAL PEOPLE'S GOVERNMENT
SHANGHAI PUDONG INTERNATIONAL AIRPORT CONSTRUCTION HEADQUARTERS**

Prequalification Questionnaire

Form J

Project : Shanghai Pudong International Airport Project (_____)

Applicant : _____

SECTION 5.1. EXPERIENCE: WORK COMPLETED IN LAST FIVE (5) YEARS, VALUES US\$ 25 - 50 MILLION

Country	Name of Employer	Value in US\$	Percentage Participation of Company in Project	Name, Location and Type of Project	Duration and Date Completed	Consulting Engineer
A. China						
1.						
2.						
3.						
4.						
5.						
B. Others						
1.						
2.						
3.						
4.						
5.						

Attach additional as necessary identify each appropriately.

**SHANGHAI MUNICIPAL PEOPLE'S GOVERNMENT
SHANGHAI PUDONG INTERNATIONAL AIRPORT CONSTRUCTION HEADQUARTERS**

Prequalification Questionnaire

Form K

Project : Shanghai Pudong International Airport Project (_____)

Applicant : _____

SECTION 5.2. EXPERIENCE: WORK COMPLETED IN LAST FIVE (5) YEARS, VALUES US\$ 50 - 100 MILLION

Country	Name of Employer	Value in US\$	Percentage Participation of Company in Project	Name, Location and Type of Project	Duration and Date Completed	Consulting Engineer
A. China						
1.						
2.						
3.						
4.						
5.						
B. Others						
1.						
2.						
3.						
4.						
5.						

Attach additional as necessary identify each appropriately.

SHANGHAI MUNICIPAL PEOPLE'S GOVERNMENT
SHANGHAI PUDONG INTERNATIONAL AIRPORT CONSTRUCTION HEADQUARTERS

Prequalification Questionnaire

Form L

Project : Shanghai Pudong International Airport Project (_____)

Applicant : _____

SECTION 5.3. EXPERIENCE: WORK COMPLETED IN LAST FIVE (5) YEARS, VALUES US\$ 100 - 200 MILLION

Country	Name of Employer	Value in US\$	Percentage Participation of Company in Project	Name, Location and Type of Project	Duration and Date Completed	Consulting Engineer
A. China						
1.						
2.						
3.						
4.						
5.						
B. Others						
1.						
2.						
3.						
4.						
5.						

Attach additional as necessary identify each appropriately.

**SHANGHAI MUNICIPAL PEOPLE'S GOVERNMENT
SHANGHAI PUDONG INTERNATIONAL AIRPORT CONSTRUCTION HEADQUARTERS**

Form M

Prequalification Questionnaire

Project : Shanghai Pudong International Airport Project (_____)

Applicant : _____

SECTION 5.4. EXPERIENCE: WORK COMPLETED IN LAST FIVE (5) YEARS, VALUES OVER US\$ 200 MILLION

Country	Name of Employer	Value in US\$	Percentage Participation of Company in Project	Name, Location and Type of Project	Duration and Date Completed	Consulting Engineer
A. China						
1.						
2.						
3.						
4.						
5.						
B. Others						
1.						
2.						
3.						
4.						
5.						

Attach additional as necessary identify each appropriately.

SHANGHAI MUNICIPAL PEOPLE'S GOVERNMENT
SHANGHAI PUDONG INTERNATIONAL AIRPORT CONSTRUCTION HEADQUARTERS

Prequalification Questionnaire

Form N

Project : Shanghai Pudong International Airport Project (_____)

Applicant : _____

SECTION 5.5. EXPERIENCE: AIRPORT WORK COMPLETED IN LAST TEN (10) YEARS

Country	Name of Employer	Value in US\$	Percentage Participation of Company in Project	Name, Location and Type of Project	Duration and Date Completed	Consulting Engineer
A. China						
1.						
2.						
3.						
4.						
5.						
B. Others						
1.						
2.						
3.						
4.						
5.						

Please state in Type of Project whether the airport was operational "O" or new Airport "N".
Attach additional as necessary identify each appropriately.

**SHANGHAI MUNICIPAL PEOPLE'S GOVERNMENT
SHANGHAI PUDONG INTERNATIONAL AIRPORT CONSTRUCTION HEADQUARTERS**

Prequalification Questionnaire

Form O

Project : Shanghai Pudong International Airport Project (_____)

Applicant : _____

SECTION 5.6. EXPERIENCE: CURRENT WORK

Country	Name of Employer	Value in US\$	Percentage Participation of Company in Project	Name, Location and Type of Project	Duration and Date Completed	Consulting Engineer
A. China						
1.						
2.						
3.						
4.						
5.						
B. Others						
1.						
2.						
3.						
4.						
5.						

Attach additional as necessary identify each appropriately.

**SHANGHAI MUNICIPAL PEOPLE'S GOVERNMENT
SHANGHAI PUDONG INTERNATIONAL AIRPORT CONSTRUCTION HEADQUARTERS**

Prequalification Questionnaire

Form P

Project : Shanghai Pudong International Airport Project (_____)

Applicant : _____

SECTION 6.1. FINANCIAL: ANNUAL STATEMENT

1. Audited Financial Statements

Single companies, joint venture partners and each member of joint operations are required to submit audited financial statements for the last three years.

2. Submission of this Form P by all Participants, dully completed is mandatory. For the purpose From P must be used. Non compliance will result is Disqualification.
3. Summary of Assets and Liabilities.

A summary of assets and liabilities derived from the audited financial statements and converted to US\$ at _____ is shown following:

	US\$/Year 1994	US\$/Year1995	US\$/Year 1996
a. Current assets			
b. Fixed assets			
c. Other assets			
d. Short-term debts			
e. Long-term debts			

4. The annual value of construction work undertaken for each of the last years disbursed to categories of work is shown following:

Category of Work	Amount (1,000 US\$)		
	Year 1994	Year1995	Year 1996
1.			
2.			
3.			
4.			
5.			

Authorized,

(Signed and Stamped by
Representataive of Application)

**SHANGHAI MUNICIPAL PEOPLE'S GOVERNMENT
SHANGHAI PUDONG INTERNATIONAL AIRPORT CONSTRUCTION HEADQUARTERS**

Prequalification Questionnaire

Form Q

Project : Shanghai Pudong International Airport Project (_____)

Applicant : _____

SECTION 6.2. FINANCIAL: GENERAL STATEMENT

1. In the last five years state any legal claims, arbitration procedures or associated financial matters, instigated by or against the applicant in relation to works carried out.

Default on a contract (yes or no)

If yes please give the project name,
Details and date

Arbitration (yes or no)

If yes please give the project name,
Details and date

Litigation (yes or no)

If yes please give the project name,
Details and date

Associated financial matter (yes or no)

If yes please give the project name,
Details and date

**SHANGHAI MUNICIPAL PEOPLE'S GOVERNMENT
SHANGHAI PUDONG INTERNATIONAL AIRPORT CONSTRUCTION HEADQUARTERS**

Prequalification Questionnaire

Form R

Project : Shanghai Pudong International Airport Project (_____)

Applicant : _____

SECTION 6.3.

FINANCIAL: CREDIT FACILITIES

Banking details of applicant and Bank reference.

1. Please provide the name and address of the established Bank or Financial Institution, that is providing your credit line.:

2. Total amount and type of credit line. This must be stated in a clear and unequivocal terms on regular Bank letterhead and signed by own authorized representative of the Bank.

3. Each applicant shall provide a reference signed by an authorized representative of an established Bank.

**SHANGHAI MUNICIPAL PEOPLE'S GOVERNMENT
SHANGHAI PUDONG INTERNATIONAL AIRPORT CONSTRUCTION HEADQUARTERS**

Prequalification Questionnaire

Form S

Project : Shanghai Pudong International Airport Project (_____)

Applicant : _____

SECTION 7.1. ADDITIONAL INFORMATION

The applicant is invited to include any other information that may further demonstrate his competence to perform the project works.

APPENDIX EVALUATION OF APPLICANTS

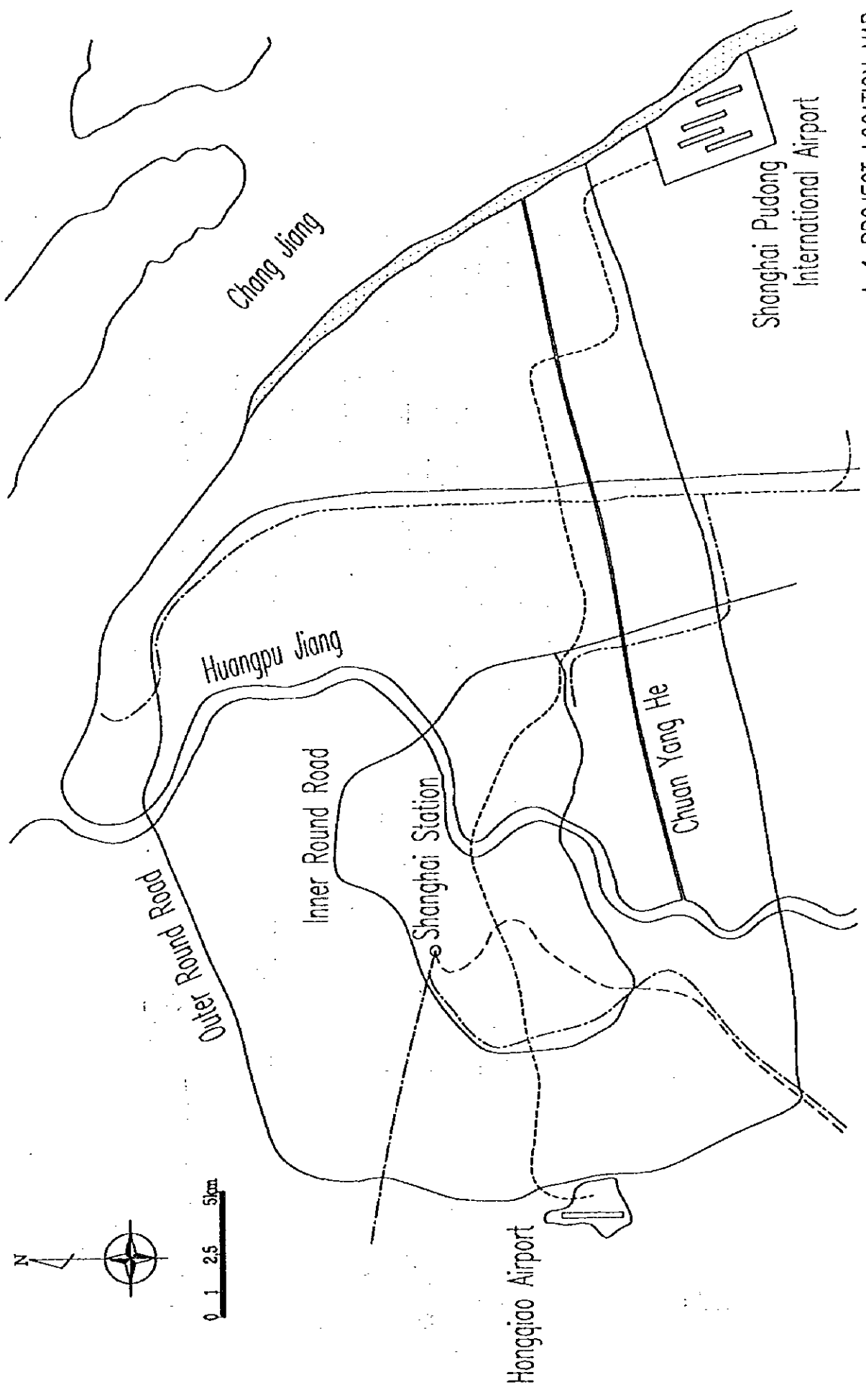
The experience, capability and financial standing of many applicants is such that selection to tender is determined by the quality of the information provided in the prequalification submission. To achieve an equitable list the assessment will be based solely upon the information submitted. If specific information was not provided, the assessment will be lower than that for an applicant of apparently equal standing who has provided such information. No account has been taken of the fact that if clarification were to be requested after the submission an applicant would probably be able to give a satisfactory answer and thus increase the grading.

To ensure that applicants for inclusion in the tender list are treated equally a scoring system is applied to the selection criteria outlined following:

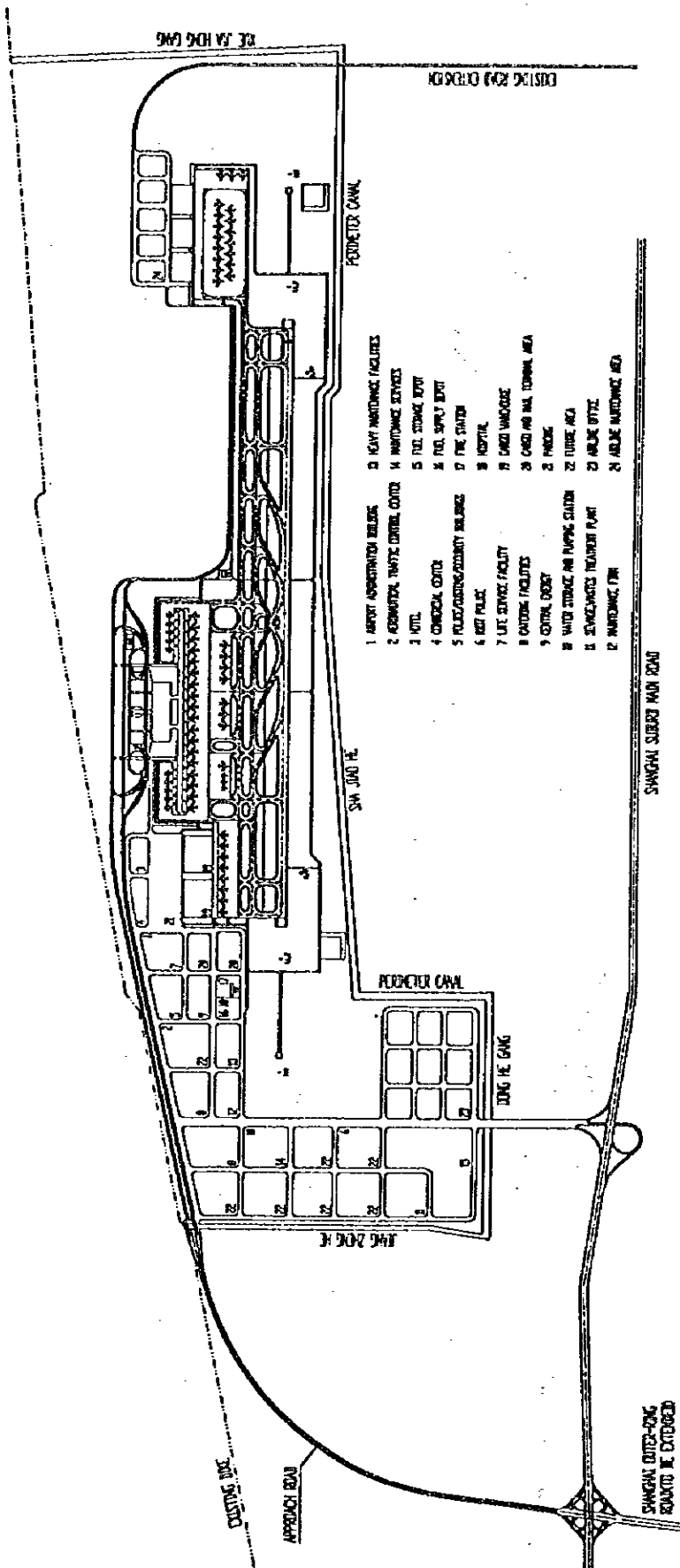
1. Recent experience and successful completion of contracts of similar nature and size is considered to be the most important criteria for selection.
2. The experience and qualifications of key staff directly responsible for the performance of the contract is of importance for the successful completion of the project.
3. Evaluation of the applicants financial capability and liquidity shall be based upon the net assets and net worth of the company. The latter figure shall represent not less than 20% of the projected cost for the completion of the Project.
4. Any Applicant with incomplete administrative and financial data shall not be considered for further technical and experience evaluation.
5. Availability of the optimum level and quality of project support services including plant and equipment, planning facilities, quality/safety plans and subcontracted patterns are viewed as a means of reducing the operational risk and inherent contract delays.

The maximum scores allocated to the elements of Experience, Finance and Resource, are:

• Experience	40
• Key site personnel	20
• Financial	15
• Structure of company	3
• Subcontract pattern	6
• Plant and equipment	6
• Planning and programming	5
• Quality and safety	5
<hr/>	
Total	100



A-1 PROJECT LOCATION MAP



1-2
 SUVARNABHUMI INTERNATIONAL AIRPORT
 GENERAL LAYOUT PLAN
 SCALE 1:5000
 JULY 1977 AIRPORT INTERNATIONAL CORPORATION BANGKOK

A-3 SCOPE OF CONSTRUCTION WORKS

	Major Work Items	Approx. Work Quantity	Remarks
Part I	Airside Civil Works		
A.	Earth Works		
	- Excavation	1,300,000m ³	
	- Embankment	2,600,000m ³	
	- Sandmat stabilization	1,500,000m ³	
	- Landscaping	1,850,000m ²	Sodding or seeding
B.	Pavement Works		
	- Runway pavement	290,000m ²	45cm thick concrete pavement
	- Taxiway pavement	600,000m ²	45cm thick concrete pavement
	- Apron pavement	940,000m ²	45cm thick concrete pavement
C.	Storm Water Drainage Facilities		
	<u>Area A</u>		
	- Open channels (masonry)	5,000m	
	- Open channels (U-shape)	6,200m	concrete-lined
	- Box culverts	3,000m	concrete-lined
	- Regulating pond	one set	Storage capacity : 36,500m ³
	- Pumping station	one set	Capacity 10m ³ /sec
	<u>Area B</u>		
	- Open channels (masonry)	6,100m	
	- Open channels (U-shape)	4,500m	Concrete-lined
	- Box culverts	3,200m	Concrete-lined
	- Regulating pond	one set	Storage capacity : 37,500m ³
	- Pumping station	one set	Capacity 10m ³ /sec
D.	Appurtenant Facilities		
	- Perimeter roads	12,000m	5cm thick asphalt pavement
	- Inspection & maintenance roads	4,200m	5cm thick asphalt pavement
	- Perimeter fences	16,000m	Steel-bar net, brick wall
	- Blast fences	1,420m	
Part II	Airfield Lighting System		
A.	Airfield lights	1 lot	Approach lights, PAPI, Apron flood lights, VDGS, etc.
B.	Power supply facilities	1 lot	2 generators (one 1400 kVA, one 880 kVA)
C.	Substation buildings	1 lot	one 2-story RC with floor area of 2000 m ² , one 1-story RC with floor area of 700 m ²

A-3 (Continued)

	Major Work Items	Approx. Work Quantity	Remarks
Part III	Fuel Supply System	One set	Storage capacity 10,000 m ³ x 6, Refueling hydrants 94, 3-story RC building with floor area of 3,000 m ²
Part IV	Fire Fighting and Rescue Facilities	One set	one 2-story RC with floor area of 3,750 m ² , one 2-story RC with floor area of 1,100 m ² one 1-story RC with floor area of 310 m ² one 1-story RC with floor area of 280 m ²
A	Buildings		
B	Vehicles	21 units	11 units (imported), 10 (domestic)



PEOPLE'S REPUBLIC OF CHINA
SHANGHAI MUNICIPAL PEOPLE'S GOVERNMENT

**SPECIAL REQUIREMENTS
FOR
AIRFIELD LIGHTING SYSTEM
IN ADDITION TO
PRECEDING PREQUALIFICATION DOCUMENT**

SEPTEMBER 1997

Shanghai Pudong International Airport Construction Headquarters
Shanghai Municipal People's Government

1. The first part of the document discusses the importance of maintaining accurate records of all transactions.



2. The second part of the document details the various methods used to collect and analyze data from different sources.



3. The final part of the document provides a summary of the findings and conclusions drawn from the analysis.



TABLE OF CONTENTS

1.	General	1
2.	Special Requirements	1
3.	Experience for Airfield Lighting System: Work Completed at last 2 years Successful Operation within Last 10 Years	2
4.	Quality Qualification by ISO-9000 Series.....	3
5.	Capability of Applicants.....	4

1911

1. The first part of the report is devoted to a general survey of the situation in the country. It is found that the country is in a state of general depression, and that the people are suffering from want and distress. The cause of this is attributed to the war, and the consequent destruction of property and the loss of life.

1

2

3

1. General

Since special qualification for the Airfield Lighting (AFL) system are required in addition to the Prequalification Document in previous part, Applicants shall be full following requirements.

2. Special Requirements

1. To qualify for tender, Applicants shall have the past experience for at least two constructions of Airfield Lighting facilities as mentioned below for airport projects, in series of design, manufacture, installation, commissioning and training of employer's staffs, and so on. These projects shall be completed in outside the home country of the Applicants or in the People Republic of China with at least 2 years successful operation within last ten (10) years. Written certificate of evidence from the owners or engineer shall be expressed in the **Form A**.
 - (a) Airfield Lighting facilities required by **Category-II (CAT II)** by ICAO (International Civil Aviation Organization).
 - (b) Lamp failure detecting system with computer-aided operation and control system.
2. The Applicants shall have a qualification of ISO (International Organization for Standardization) - 9000 series. Written certificate from ISO shall be attached to the **Form B**.

In case a Joint Venture (J/V) or Joint Operation (J/O), if either of Applicants have the ISO-9000, the J/V or J/O is deemed to cover the qualification.
3. The Applicants are required to state that their capability can provide philosophy as preliminary design and accomplish A-SMGCS (Advanced Surface Guidance and Control System) in future.

For example, the Applicants are required to demonstrate that his or his vender have participate working group in ICAO or have attempted the experiment of the A-SMGCS in the **Form C**.
4. The Applicants are required to select Chinese erection company(s) authorized as first class by China Airport Construction Corporation (CACC) as the subcontractor or the (J/V) or (J/O).

SHANGHAI MUNICIPAL PEOPLE'S GOVERNMENT
SHANGHAI PUDONG INTERNATIONAL AIRPORT CONSTRUCTION HEADQUARTERS

Prequalification Questionnaire

Form A

Project : Shanghai Pudong International Airport Project (Airfield Lighting System)

Applicant : _____

EXPERIENCE FOR AIRFIELD LIGHTING SYSTEM: WORK COMPLETED AT LAST 2 YEARS SUCCESSFUL OPERATION WITHIN LAST 10 YEARS

(1) Airfield Lighting facilities required by Category-II of ICAO and (2) Lamp failure detecting system with computer-aided operation and control system.

Country	Name of Employer	Value in US\$	List of Facilities	Date of Completion	Name of Manufacturer and/or Subcontractor
A. China					
1.					
2.					
B. Others					
1.					
2.					

Attach additional as necessary identify each appropriately

SHANGHAI MUNICIPAL PEOPLE'S GOVERNMENT
SHANGHAI PUDONG INTERNATIONAL AIRPORT CONSTRUCTION HEADQUARTERS

Prequalification Questionnaire

Form B

Project : Shanghai Pudong International Airport Project (Airfield Lighting System)

Applicant : _____

QUALITY QUALIFICATION BY ISO-9000 SERIES

No.	Name of Applicants	Country of Origin	Certificate No.	Certificate Date

Attach copy of the certificate and additional as necessary identify each appropriately.

**SHANGHAI MUNICIPAL PEOPLE'S GOVERNMENT
SHANGHAI PUDONG INTERNATIONAL AIRPORT CONSTRUCTION HEADQUARTERS**

Prequalification Questionnaire

Form C

Project : Shanghai Pudong International Airport Project (Airfield Lighting System)

Applicant : _____

Capability of Applicants

The applicant is required to demonstrate that his capability to provide philosophy and perform A-SMGC (Advanced Surface Movement Guidance and Control System) in future.

Invitation to Tender
(letterhead paper of the Employer)

Date: _____

To: _____ (name of Contractor)
_____ (address)

Reference: OECF Loan No. _____ ;

Construction of Airside Civil Works for Shanghai Pudong International Airport Project, Contract No. _____

Dear Sirs,

1. We hereby inform you that you are prequalified for bidding for the above cited contract.
2. We now invite you and other prequalified bidders to submit sealed bids for the execution and completion of the cited contract.
3. You may obtain further information from, and inspect and acquire the bidding documents, at our office at (mailing address, street address and cable/telex/facsimile numbers).
4. A complete set of bidding documents may be purchased by you at the above office, and upon payment of a nonrefundable fee of (amount in Borrower's country currency) or (amount in foreign currency).
5. All bids must be accompanied by a security in the form and amount specified in the bidding documents, and must be delivered to _____
at or before (time) on _____, 19____. Bids will be opened immediately thereafter in the presence of bidders' representatives who choose to attend.
6. Please confirm receipt of this letter immediately in writing by cable, fax, or telex. If you do not intend to bid, we would appreciate being so notified also in writing at your earliest opportunity.

Yours truly,

Authorized signature : _____
Name and title : _____

Employer : _____



JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

SCIENCE AND TECHNOLOGY COMMISSION OF
SHANGHAI MUNICIPAL PEOPLE'S GOVERNMENT,
PEOPLE'S REPUBLIC OF CHINA

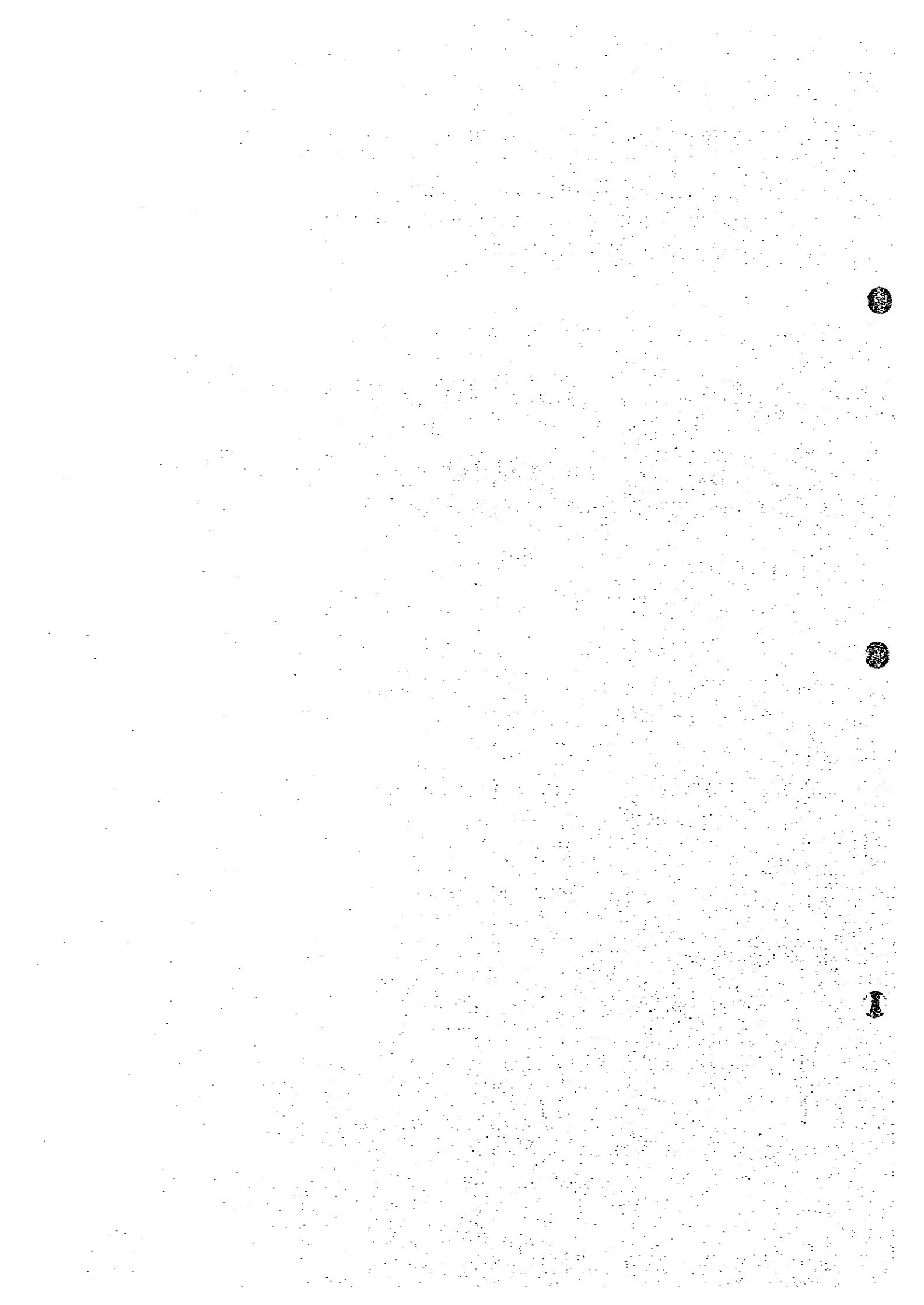
**DETAILED DESIGN
OF
SHANGHAI PUDONG INTERNATIONAL
AIRPORT
FINAL REPORT**

**VOLUME III
TENDER DOCUMENT**

**PART II
INSTRUCTION TO TENDERERS**

SEPTEMBER 1997

**NIPPON KOEI CO., LTD.
NIKKEN SEKKEI LTD.**



JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

SCIENCE AND TECHNOLOGY COMMISSION OF
SHANGHAI MUNICIPAL PEOPLE'S GOVERNMENT,
PEOPLE'S REPUBLIC OF CHINA

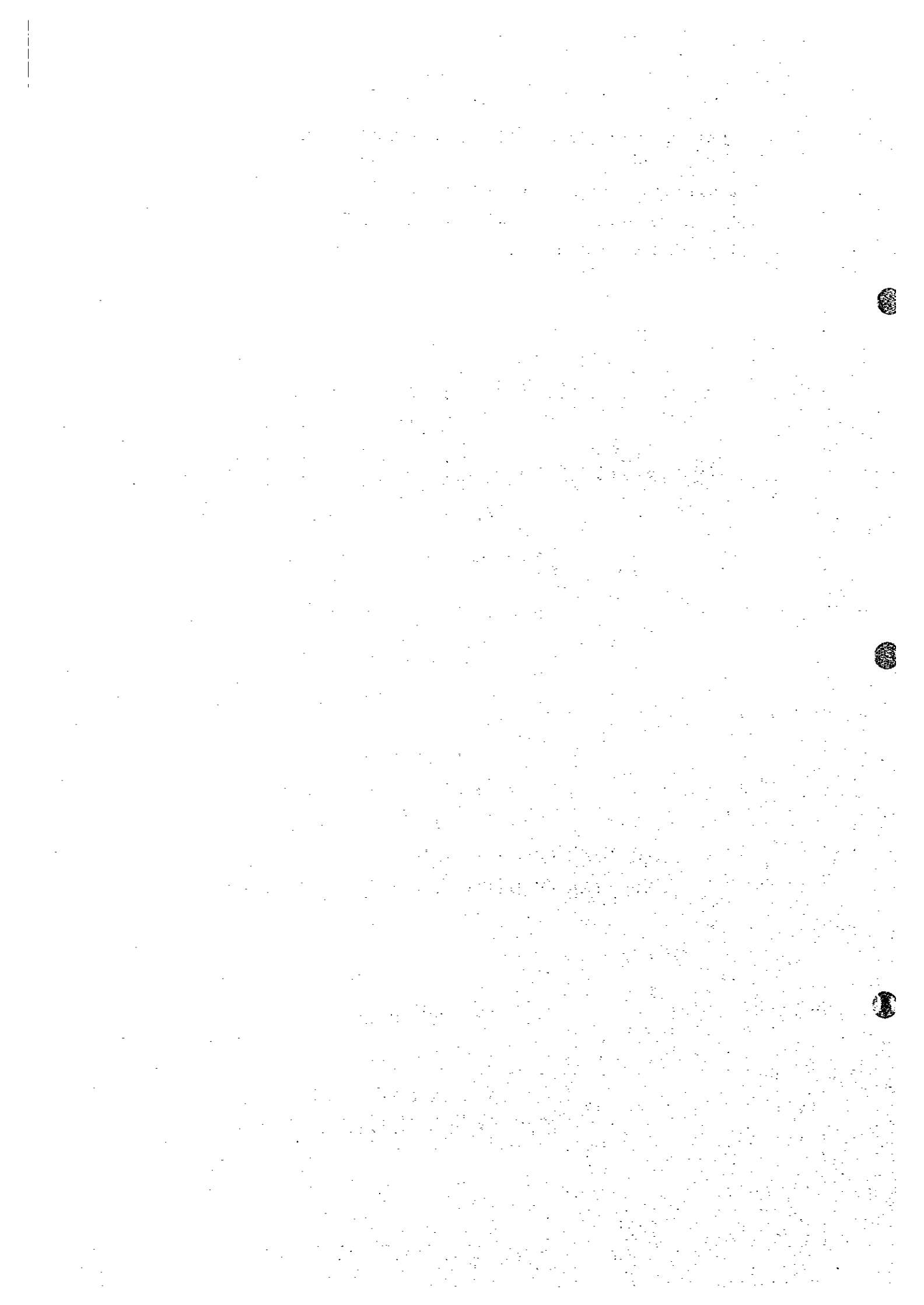
**DETAILED DESIGN
OF
SHANGHAI PUDONG INTERNATIONAL
AIRPORT
FINAL REPORT**

**VOLUME III
TENDER DOCUMENT**

**PART II -1
INSTRUCTIONS TO TENDERERS
FOR
AIRSIDE CIVIL WORKS or FUEL SUPPLY SYSTEM
or FIRE FIGHTING AND RESCUE FACILITIES**

SEPTEMBER 1997

**NIPPON KOEI CO., LTD.
NIKKEN SEKKEI LTD.**



PEOPLE'S REPUBLIC OF CHINA
SHANHAI MUNICIPAL PEOPLE'S GOVERNMENT
SHANGHAI PUDONG INTERNATIONAL AIRPORT PROJECT
FINAL REPORT

TENDER DOCUMENT
PART II-1
INSTRUCTIONS TO TENDERERS
FOR
AIRSIDE CIVIL WORKS, FUEL SUPPLY SYSTEM AND
FIRE FIGHTING AND RESCUE FACILITIES

TABLE OF CONTENTS

Clause		Page
1.0	GENERAL	
1.1	Description of the Works.....	1
1.2	Source of Funds	1
1.3	Eligibility and Qualification Requirements	1
1.4	Cost of Tendering	1
1.5	Pre-Tender Meeting and Official Site Visit.....	1
2.0	TENDER DOCUMENT	
2.1	Content of the Tender Document.....	2
2.2	Addenda and Queries.....	3
3.0	PREPARATION OF TENDERS	
3.1	Examination of the Documents and site of the Works	3
3.2	Language of Tenders.....	4
3.3	Site	4
3.4	Operational Airport.....	5
3.5	Taxes, Duties etc.....	5
3.6	Advance Payment	5
3.7	Method of Payment.....	5
3.8	Bill of Quantities.....	6
3.9	Tender Bond.....	6
3.10	Forfeit of Tender Bond	7
3.11	Project Execution Plan.....	7
4.0	SUBMISSION OF TENDERS	
4.1	Contents and Completion of Tenders	9
4.2	Power of Attorney.....	12

Clause	Page
4.3 Companies, Firms Tendering.....	12
4.4 Technological Transfer.....	13
4.5 Compatibility with Tender Documents.....	13
4.6 Tender Validity.....	13
4.7 Late Tenders.....	13
5.0 TENDER OPENING AND EVALUATION	
5.1 Opening of Tenders.....	13
5.2 Examination of Tenders.....	14
5.3 Rejection of Tenders.....	15
5.4 Process to be Confidential.....	16
6.0 AWARD OF CONTRACT	
6.1 Letter of Intent.....	16
6.2 Approval by OECF.....	16
6.3 Signing of Agreement.....	17
6.4 Employers Right to Accept or Reject Tenders.....	17
6.5 Notification to Unsuccessful Tenderers.....	17
6.6 Withdrawal of Award.....	17
APPENDIX TO THE INSTRUCTION TO TENDERERS	
A Outline Scope of Works.....	19
B Notice to Tenderers.....	21
C Examination of Documents and the Site of the Works.....	22
D Soil Investigation Report.....	23
E Check list of documents.....	32
F Tender Bond.....	34
G Form of Tender.....	36
H Appendix to the Conditions of Contract.....	38
I Form of Agreement.....	40
J Performance Bond.....	42
K Form of Advance Payment Guarantee.....	44
L Breakdown of Major Rates.....	46

1. GENERAL

1.1 Description of the Works

The Project is the first phase construction of a new international airport at Pudong area in Shanghai, comprising a runway (4,000m long), runway strip, taxiways, aprons, drainage facilities, and appurtenant facilities. The scope of the Airside Civil Works (hereinafter referred to as the "Works") is per attached as Appendix A.

1.2 Source of Funds

The Government of the People's Republic of China has concluded an agreement with the Overseas Economic Cooperation Fund (OECF) of Japan for a loan towards the cost of the Project and authorized the Shanghai Municipal People's Government (hereinafter referred to as the "Employer") to implement the Project and administer the loan.

1.3 Eligibility and Qualification Requirements.

Invitations to Tender will be issued only to those companies or associations of companies from eligible source countries, as set out in the Loan Agreement No. _____ and have duly prequalified through OECF review on the prequalification results for the Project.

1.4 Cost of Tendering

Tenderers shall bear all costs associated with the preparation and submission of their Tender. The Employer will in no case be responsible or liable for these costs, regardless of the conduct or the outcome of the tendering process.

1.5 Pre-Tender Meeting and Official Site Visit

1.5.1 The Tenderers are requested to attend a pre-tender meeting which will be convened at _____ on _____.

1.5.2 The purpose of the pre-tender meeting is to clarify issues and to answer any question raised on any matter at that stage.

The representatives of Tenderers attending the pre-tender meeting shall furnish the Power of Attorney signed and stamped by all member firms of joint operation, association, consortium or venture.

Tenderer(s) not attending the pre-tender meeting notwithstanding any reason whatsoever will be considered as a withdrawal from participation in Tender.

- 1.5.3 Minutes of the pre-tender meeting, including copies of the questions raised and responses given, will be furnished expeditiously to all those attending the meeting. Any modification of the Tender Documents, which may become necessary as a result of the pre-tender meeting, shall be made by the Tender Committee exclusively through the issuance of Notice to Tenderers and not through the minutes of the pre-tender meeting.
- 1.5.4 Tenderers are requested to visit and examine the Site of the Works and its surroundings and obtain for themselves on their own responsibility all information that may be necessary for preparing a Tender and entering into a Contract. An official site inspection visit will be organized and all tenderers will be invited to attend. Access to all areas of the Site of the Works for purposes of inspection, other than on an official site visit, may be refused.
- 1.5.5 This restriction does not relieve the tenderers of responsibility to establish all relevant information regarding the site and its limitations. The cost of attending the official inspection or visiting the site shall be at the expense of the tenderers.
- 1.5.6 Tenderers will only be permitted to visit the Site of the Works on the understanding that they indemnify the Employer from and against all liabilities whatsoever in respect of their inspection of the site.

2.0 TENDER DOCUMENT

2.1 Content of the Tender Document

2.1.1 The Tender Document upon which tenders are to be based comprises:

- Invitation to Tender
- Instructions to Tenderers
- Conditions of Contract (Parts I and II)
- Specification
- Drawings
- Preamble to Bills of Quantities
- Bills of Quantities
- Notices to Tenderers (if issued)

2.1.2 Tenderers are required to examine the content of the Tender Document, should there be any doubt about the precise meaning of any item, word or figure for any reason

whatsoever, or should they observe any apparent omission of any item, words or figures they must inform the Employer such that any correction required may be incorporated prior to the Tender submission date. By submitting a Tender the tenderers are deemed to have fully understood the content of the Tender Document.

2.2 Addenda and Queries

2.2.1 Clarifications shall be given and changes made to the Tender Document only through the issue of Notices to Tenderers by the Employer, Reference Appendix B. No other clarification or change will be valid. The Employer will accept no liability whatsoever for any actions taken by tenderers on clarifications or changes to the Tender Document which are not the subject of a Notice to Tenderers.

2.2.2 Should tenderers have any query on any matter concerning the Tender Document such query shall be issued in writing to the Employer at the address given in the Invitation to Tender. Responses shall be issued by the Employer as Notices to Tenderers to all Tenderers who have received the Tender Document.

All queries submitted shall clearly state in the following order:

- (a) the title and reference of the works
- (b) the name of the tenderer
- (c) the name of the document being queried
- (d) the page and item numbers being queried
- (e) the query regarding the particular item.

2.2.3 Notices to Tenderers will be issued not later than 14 days prior to the date for receipt of tenders. Therefore, any queries from tenderers must be received no later than 28 days prior to the date for receipt of tenders.

2.2.4 On receipt of a Notice to Tenderers, tenderers shall sign in acknowledgment of receipt and return a copy immediately to the Employer at the address given in the Invitation to Tender. Copies of each Notice to Tenderers issued shall be submitted with tenders.

2.2.5 During the official site inspection visit, organized by the Employer, queries may be answered verbally. These queries and any answers given will be confirmed later by a formal Notice to Tenderers. Only the written Notice to Tenderers shall be considered.

3.0 PREPARATION OF TENDERS

3.1 Examination of the Documents and Site of the Works

3.1.1 Before submitting a Tender, tenderers shall carefully examine all documents comprising the Tender Document and visit the site of the Works, and, in general obtain all information as to the availability and costs of labour and materials, the prevailing weather conditions, access to and the nature of the Works, soil conditions, supply of water, power, etc., and all risks and contingencies which may arise which could affect the cost of constructing, completing and maintaining the Works. Tenderers are referred to Clause 1.5 of the Instructions to Tenderers with regard to visiting the site.

3.1.2 Tenderers shall submit with their Tender, a declaration that they have examined all documents comprising the Tender Document and have visited the site of the Works and that they have satisfied themselves as to all of the conditions under which the Works are to be constructed, completed and maintained. The form of the declaration to be completed and submitted is attached as Appendix C.

3.2 Language of Tenders

Tenders and all correspondence and documents relating to a tender shall be written in the English Language. Supporting documents and printed literature furnished by the tenderers may be in another language provided such documents and literature are accompanied by an appropriate translation of pertinent passages in the above stated language and duly notarized as to correctness of translation. For the purpose of interpretation of tenders, the English language shall prevail.

3.3 Site

Latitude N31° 09'

Longitude E121° 48'

Airport elevation DL. +5.30 m

Temperature(° C)

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Maximum	21.0	27.2	26.2	33.2	35.5	36.2	37.9	38.0	34.6	33.7	27.7	24.2
Minimum	-9.6	-9.5	-4.0	0.4	6.8	12.6	16.4	18.6	10.1	2.2	-3.9	-9.4
Average	3.5	4.4	8.1	13.7	18.7	23.0	27.4	27.3	23.4	18.1	12.3	6.0

Rainfall - Maximum 160 mm (September)
- Minimum 40 mm (January)

Relative humidity - Maximum 86 % (June, July)
- Minimum 77 % (December, January)

Nearest Towns Jiangzhen, Shiwan, and Zhuqiao

Nearest Harbour Waigaoqiao Harbour

Soil Information Generally silty clay or clay classified as SC or C by the Unified Soil Classification System, that is, having low permeability and poor compactability (Refer to Appendix D)

The meteorological and soils information given represents mean values, this information is given for guidance and is not warranted.

3.4 Works under Construction

Out of the airside civil works, the treatment of existing water channels and the ground improvement work by ram dropping method started in August 1996 and are under construction as of the end of June 1997.

3.5 Taxes, Duties, etc.

The successful tenderer and his employees shall be liable for all taxes and duties necessary and incidental to the due and lawful prosecution of the work in accordance with any and all laws, ordinances, regulations, orders, decrees, and notices of the People's Republic of China.

3.6 Advance Payment

An advance payment of 20 percent of the Contract Price stated in the Letter of Acceptance will be made against a Bank guarantee. The advance and repayments are detailed in clause 60.15 of the Conditions of Contract Part II.

3.7 Method of Payment

3.7.1 Within 28 days of receipt of the Engineers Interim Payment Certificate the Employer shall issue Statements of Performance to the Bank of China to effect the:

- (1) Instruction Procedure, for payment to a non-Chinese contractor of the Foreign currency component financed by the OECF loan fund, paid in Japanese Yen against a commercial letter or credit through the Bank of Tokyo-Mitsubishi.
- (2) Reimbursement Procedure, for payment to a Chinese contractor of the Foreign currency component financed by the OECF loan fund, paid in Japanese Yen against invoices through the Bank of China.
- (3) Local Disbursement Procedure, for payment of the local currency component

financed by the Government of People's Republic of China, paid in Renminbi through _____ (State Treasury Office).

3.7.2 For payments in Japanese Yen the Bank of China, on receipt of the Performance Statement, will raise a Notice of Issuance of the Statement of Performance to the Bank of Tokyo-Mitsubishi, the date of the notice will be deemed the payment date.

3.8 Bill of Quantities

3.8.1 Tenderers shall complete the Bill of Quantities (B.O.Q.) as required. Rates shall be inserted against each item, in black ink, on the pages provided in the documents and extended to show a total for each item. The page total shall be entered and carried forward to collections or summaries as required. Lump sums covering whole pages or a group of items are not permitted, should this occur, it may lead to the disqualification of the tenderer and the rejection of his Tender.

3.8.2 If no rate is inserted against an item (or items), the cost of carrying out the work described in the item(s) will be deemed to be covered elsewhere and no measurement of the item(s) will be made.

3.8.3 Rates shown in the Bill of Quantities are deemed to include for all the work shown on the Drawings, described in the Specification, Conditions of Contract and all other Contract Documents relevant there to, including that which may reasonably be inferred or implied from such description.

3.8.4 Rates shall be shown in both foreign and local currencies in the proportion of the tenderer's foreign and local costs as appropriate. The rates shall be extended by the given quantities to the totals columns, the amount of both foreign and local currency for each item shall be shown and the overall total amount for an item shall also be given in local currency. For the purposes of comparison of tenders the foreign currency amount will be converted to local currency at the official exchange rate that will be stated in the pretender meeting. Each tenderer will be informed of this rate by the Employer issuing a Notice to Tenderers. The overall total amount of the Tender expressed in China Renminbi shall be stated on the Form of Tender along with the total amounts of the local and foreign currency portions. The Performance Bond and Advance Payment Guarantee are to be denominated in China Renminbi and Yen based on the amounts stated in the Letter of Acceptance.

3.8.5 The Employer shall neither issue copies of the B.O.Q nor receive completed copies of the B.O.Q on computer disc.

3.9 Tender Bond

- 3.9.1 Tenderers shall submit with their Tender, a Tender Bond representing a value between a minimum of 1% and maximum of 3% of the amount of the Tender. Tenders submitted without a valid Tender Bond may be disqualified.
- 3.9.2 The Tender Bond will be in the form attached to these instructions and will be from a bank acceptable to the Government of People's Republic of China, on bank letterhead duly signed and stamped. Sureties and performance guaranties from insurance companies shall not be accepted by the Employer.
- 3.9.3 The Tender Bond shall be denominated in Renminbi and Yen based on the total amounts of the currency portions stated in the Form of Tender, and shall be valid for the period from the date of opening tenders to 35 calendar days beyond the validity of the Tender.
- 3.9.4 Where a tenderer is a single company or an existing association of companies the Tender Bond shall be in the name of that company or the Leading Firm of such association as expressed in the Power of Attorney attached to the Form of Tender.

3.10 Forfeit of Tender Bond

The Tender Bond may be forfeit if a Tender is rejected in accordance with Clause 5.3, of the Instructions to Tenderers, or if the successful tenderer fails to sign the Contract Agreement and/or deliver a satisfactory Performance Bond within the time stated.

3.11 Project Execution Plan

- 3.11.1 Tenderers are required to provide as an attachment to their Tender a draft Project Execution Plan (PEP) in accordance with the format given following. The PEP shall contain provision for updating and amendment as necessary and shall demonstrate the basis of capability and proper control.

(1) Project Strategy : shall contain a detailed description of the organization to be employed by the Contractor identifying the persons and/or Subcontractors to whom the work is entrusted and their responsibilities by activity or section of the Works. The description shall include a sufficiently detailed statement for each activity or section of the Works, allocated plant, labour resources histogram for the whole of the Works, programme interfaces, major materials sources and methods of construction to be used.

(2) Organization Chart : shall identify by activity or section all site management, supervision, Subcontractors and support personnel, the reporting structure and communication lines between the various levels of management and head/branch office, the Employer and Engineer, Subcontractors, suppliers and other contractors working on Site. A site management and support staff histogram identifying local

and foreign staff required for the whole of the Contract Period shall be provided.

- (3) Key personnel : CVs for the site management, technical management, supervision, Subcontractors and support staff shown in the organization chart shall be provided and include, education and specialization following graduation, (copy of diploma certification shall be attached) experience in airport construction projects and general construction projects, values of projects and positions held on those projects.

The Organization Chart shall show as a minimum the :

Project Manager and Deputy Project Manager
Construction/Technical manager
Construction Engineers/Supervisions for all disciplines
M & E Engineers/Supervisions for installation, testing and commissioning
Quality Engineer
Planning Engineer
Procurement Engineer
Accident Prevention Officer
Measurement Engineer

- (4) Risk Management Control : describe the techniques, tools and methodologies used, including the promulgation of progress reports, action plans and fall back options, to identify, evaluate and control the overall project.
- (5) Programmes : shall include networks and bar charts showing major component items comprising the Works. The activities of all Subcontractors shall be included, all specialized long lead items (6 months and over) shall be shown, key events, interfaces with others, dependencies and critical path(s) shall be clearly identified.

The programmes shall be resourced to show graphically and numerically the labour and staff profiles, including subcontractors by activity or section, with cumulative monthly totals.

The project management software to be employed shall be stated and shall be made available to both the Employer and Engineer. The methods of measurement of the actual progress during the execution of the Works shall also be stated.

- (6) Quality Management System : provide the Project Quality Assurance Plan or a detailed description of the Quality System, organization and procedures that will be used to assure and control the quality of the Works. Identify the accreditation authority (if any).
- (7) Project Safety Plan : provide a draft Safety Plan for the Project.
- (8) Procurement Capability : tenderers shall provide a detailed listing of all major

materials sources of supply and details of all equipment to be installed.

(9) Construction Equipment : tenderers shall provide a detailed listing (schedule) of all construction equipment intended for use during the Works in terms of:

- (i) Capacity
- (ii) Quantity
- (iii) Years of service after manufacture
- (iv) Present value
- (v) Present location of equipment
- (vi) Ownership

(10) Sketches of the location, layout and type of the proposed temporary site facilities shall be given, to include offices, stores, workshops, soil plant, concrete plant, asphalt plant, materials, utilities reticulation.

4.0 SUBMISSION OF TENDERS

4.1 Contents and Completion of Tenders

4.1.1 Tenders shall include the following documents and information which shall be bound into the appropriate volumes in the order shown in the check list of documents. Refer to Appendix E.

- (1) Covering letter with name, address, telephone and facsimile numbers of the tenderer and his authorized resident representative in China.
- (2) Certificate of Prequalification issued by the Tender Committee.
- (3) Tender bond, Reference Appendix F.
- (4) Power of Attorney issued by the tenderer to his legal representative and signatory of the tender Document.
- (5) Copies of all Notices to Tenderers (if issued), Reference Appendix B.
- (6) Declaration of shareholders of company or association of companies (Instructions to Tenderers, item 4.1.9).
- (7) Statement of no change (Instructions to Tenderers item 4.3.2).
- (8) Joint Venture or Joint Operation Agreement, including details of the management structure of the J.V/J.O, share rate and distribution of responsibilities between the J.V/J.O members (relative to the Scope of the Project Works).

- (9) Statement of examination of the Tender Document, the site of the Works and its surroundings, completed and signed. Reference Appendix C.
- (10) Copy of Enterprise Registration for local firms, or the certificates of registration and representation for construction services in accordance with state Administration for Industry and Commerce regulation for foreign firms.
- (11) Copy of Permit for Operation and Company Certificate in accordance with the Shanghai City Construction Works Tender Control Provisional Act (1988).
- (12) Bank reference stating amount of credit available from a bank accredited by the Bank of China.
- (13) Project Execution Plan including:
 - 1) Project strategy
 - 2) Organization chart
 - 3) Key personnel CVs
 - 4) Risk management control
 - 5) Programmes
 - 6) Quality management system
 - 7) Project safety plan
 - 8) Procurement capability
 - 9) Construction equipment
 - 10) Temporary site facilities
- (14) Statement of compatibility with the Tender Document (Instructions to Tenderers item 4.5).
- (15) Method of technological transfer (Instructions to Tenderers item 4.4)
- (16) Copies of the last three years audited accounts (96, 95, 94) authorized by auditor sign with attached summary identifying:
 - 1) Current assets
 - 2) Fixed assets
 - 3) Other assets
 - 4) Short-term debts
 - 5) Long-term debts
- (17) Details of previous construction experience including:
 - 1) Mean annual construction sales by category of work for last 3 years (96, 95, 94)
 - 2) Operational and non operational airport works last 10 years together with copy of complete certificate from the owner or consultant.

- 3) General construction experience, projects over 50 million US\$ in value during last five years
- 4) Current value of work in hand.

All experience data shall identify the country where the Works were undertaken, the Employers name, the value in US\$, the percentage participation (acting as main contractor or subcontractor), the consulting engineers name, the project name and the date the project construction works were completed.

- (18) Details of Subcontractors previous construction experience as item (18) above, item 2) to read:

Operational and non operational airport works last 10 years together with copy of complete certificate from the owner, consultant or main contractor. In case of the copy of complete certificate from main contractor, the copy of complete certificate from the owner or consultant issued to main contractor shall be attached.

and, item 3) to read:

General construction experience as subcontractor, subcontract values over 1.0 million US\$ in value during last five years.

- (19) Any other document(s) required by the issue of Notices to Tenderers.
- (20) Form of Tender (Reference Appendix G) and Appendix to the Conditions of Contract (Reference Appendix H), fully completed and signed as required.
- (21) Priced Bill of Quantities and summary thereof fully completed as required.
- (22) Cumulative Interim Payment schedule and schedule of Daywork rates.
- (23) During the Tender evaluation process tenderers may be requested to submit a breakdown of the major Bill of Quantities rates in the format shown in Appendix L.

4.1.2 The Conditions of Contract, the Specification, the Drawings and the Instructions to Tenderers need not be submitted.

4.1.3 All documents shall be submitted in English and marked "Original" and "Copy" respectively. The copy of the original may be a duplicate or a photocopy.

4.1.4 All administrative and technical information shall be bound into one original and five copy volumes and placed in separate envelopes marked "Envelope A Original" and "Envelope A Copy". The Bills of Quantity, Form of Tender, and Appendix to the Conditions of Contract shall similarly be bound into one original and five copy volumes

and placed in separate envelopes marked "Envelope B Original" and "Envelope B Copy". The envelopes shall be marked with the tenderers name and entitled "Tender for Shanghai Pudong International Airport Project: Airside Civil Works"

4.1.5 All administrative and technical envelopes shall be sealed in a single packet marked "Envelope A, Tender for Shanghai Pudong International Airport Project: Airside Civil Works" (Not to be opened before _____) The date of tender opening is to be as instructed in the Invitation Tender. No indication of a tenderer's name shall be given on this packet.

4.1.6 All financial envelopes shall be sealed in a single packet marked "Envelope B" and annotated as stated in item 4.1.5.

4.1.7 Packets marked Envelope A and Envelope B shall be delivered between the hours of 09:00 and 11:00, on the date and to the address given in the invitation to Tender.

4.1.8 The following forms are attached as appendices I, J and K for information only at this stage, but will be used after the award of Contract. A written declaration must be included stating the tenderer is willing to enter into an agreement and provide a bond in the terms indicated in these sample documents:

- Form of Agreement.
- Performance Bond.
- Form of Advance Payment Guarantee.

4.1.9 Where tenderers are a Joint Venture or a Joint Operation each shareholder is jointly and severally liable for all obligations and responsibilities of the Joint Venture or Joint Operation. A declaration from each shareholder to this effect is required to be submitted with the information required under item 4.1.1(6).

4.2 Power of Attorney

4.2.1 All tenderers shall submit the original of the legal documents duly attested by Chinese authorities, which give the signatories of the Tender the Power of Attorney to sign the Tender on behalf of the tenderer.

4.3 Companies, Firms Tendering

4.3.1 All tenderers have been selected on the basis of the prequalification documents submitted by them.

4.3.2 Section 1, item 1.3.8 of the Prequalification Document required a statement of the formation and nature of the company or association of companies seeking prequalification, all tenderers shall submit with their Tender:

A statement confirming the responsibilities rights and obligations of each participating partner, the allocation of those responsibilities and that there has been no change whatsoever in the type, formation or nature of the company or association of companies from that stated in their Prequalification Document.

4.4 Technological Transfer

4.4.1 Tenderers shall fully describe, in their tender submissions, how they intend to implement technological transfer to Chinese personnel in executing this contract.

4.5 Compatibility with the Tender Document

4.5.1 Tenderers shall submit a signed declaration that their Tender is based on providing systems, equipment, materials, goods and the like, which comply with the relevant part of the Specification and all conditions of the Tender Document.

4.6 Tender Validity

4.6.1 The tenders shall remain valid and open for acceptance for a period of 210 calendar days after the date for opening tenders as prescribed in the Invitation to Tender.

4.7 Late Tenders

4.7.1 Any tender received by the Employer after the deadline for submission of tenders will be returned unopened.

5.0 TENDER OPENING AND EVALUATION

5.1 Opening of Tenders

5.1.1 The Employer has elected to adopt the two envelope tender procedure for the Shanghai Pudong International Airport project and has appointed a Tender Committee to implement the procedure. The decisions of the chairman of the Tender Committee in implementing the procedure shall be final and no correspondence shall be entered into in respect of those decisions. The procedure for opening of tenders is outlined following.

5.1.2 Tender Envelope A will be opened in the order in which they were received in the presence of those tenderers attending, no discussion with the tenderers will be permitted, but the names of tenderers submitting a Tender will be announced.

5.2 Examination of Tenders

5.2.1 The Tender Committee shall examine the content, validity and completeness of the administrative information, as defined in the Shanghai City Construction Works Tender Control Provisional Act (1988), together with any other supplementary information required by the Instructions to Tenderers.

The following data, but not limited to, shall be provided by the Tenderers in their tender document. The mandatory data in accordance with the Provisional Act (1988) are as follows:

- Tender Bond that meets the stipulated requirements. Refer to Appendix F.
- Power of Attorney.
- Joint Venture or Joint Operation Agreement, including distribution of responsibilities between the J.V/J.O members, rights and obligation of its participants and validity of J.O Agreement.
- Company Registration Certificate
- Permit for Operation or similar certificate
- Bank Reference.
- Project Execution Plan
- Contractors financial data
- Contractors previous construction experience
- Any other documents may be asked by the Tender Committee during clarification period and shall be fulfilled by the Tenderers within the agree period.

Any Tender which is incomplete and does not comply with the above mandatory requirements shall be disqualified.

5.2.2 Those tenders in which the administrative information satisfies the criteria of the Provisional Act (1988), as determined by the Tender Committee, shall be carried forward to the second stage of the tender procedure, evaluation of the technical information (refer to item 3.11). Any Tender which fails to meet the technical evaluation criteria shall be returned to the tenderer with Envelope B unopened.

5.2.3 The following elements of a tenderer's technical information will be evaluated against given criteria. The maximum weighting for each of the elements will be as shown below.

Project Execution Plan:	(1) Method of construction	40%
	(2) Programmes and time schedule	10%
	(3) Key personnel's experience	20%
	(4) Equipment and material	10%
Method of Technological Transfer		5%
Contractor's Previous Experience		10%
Subcontractor's Previous Experience		5%
		<hr/>
		100%

- 5.2.4 The Project Execution Plan, the schedules of plant, staff and labour will be examined with the programme to ensure that the tenderer's proposals are viable and that the resources proposed are sufficient to construct, complete and maintain the Works in accordance with the Contract and within the stated Time for Completion.
- 5.2.5 Should it be found necessary, the Employer may seek clarification of any matter or thing in any Tender. Such request for clarification shall be in writing and the reply from the tenderer(s) shall also be in writing. The reply (or any reply) shall not materially affect the Tender and any attempt to materially affect the Tender may lead to the disqualification of that tenderer and the rejection of his Tender.
- 5.2.6 Each Tender will be considered in its entirety and assessed for its compatibility with the requirements of the Tender Document and the Employers requirements. Should any Tender be found to be incompatible then that tender may be rejected.
- 5.2.7 Subsequent to the opening and evaluation of Tender Envelope A, Tender Envelope B of those tenderers qualifying shall be opened, each Tender shall be scrutinized in detail with the principal objective of ensuring that the Tender is responsive to the requirements of the Employer and of the Tender Document.
- 5.2.8 Tenders determined as being responsive shall be checked arithmetically and if there is any discrepancy in the extension of any billed item, the rate shall remain as entered and the amount altered. Any error in addition or carrying forward shall be corrected. If any such errors are found the tenderer(s) concerned shall be informed. Where there is a discrepancy between amounts in figures and in words, the amount in words will govern. Where there is a discrepancy between the total amounts of the local and foreign currency portions and the overall total amount in Chinese Renminbi, as stated on the Form of Tender, then the amounts stated for the local and foreign currency portions shall govern.
- The amount stated in the Form of Tender shall be adjusted in accordance with the above procedure for the correction of errors with the concurrence of the tender, and it shall be considered as binding upon the tenderer. If the tenderer does not accept the corrected amount his Tender shall be rejected and the Tender Bond shall be forfeited.
- 5.2.9 All acceptable tenders shall be graded in order of assessment and the Tender most suitable for the requirements of the Employer identified.
- 5.2.10 It is to be noted that if there is any discrepancy between the original Tender and the Copy Tender the original will prevail.
- 5.3 Rejection of Tenders**
- 5.3.1 Based on the provisions of the Provisional Act (1988), Tenders may be rejected for, but not limited to, the following reasons.

- If more than one Tender is submitted by any tenderer.
- If the Tender is not submitted in the form prescribed.
- If the Tender is incomplete.
- If there is evidence of collusion between tenderers.
- If there are reservations or conditions added by tenderers.
- If the Tender is incompatible with the requirements of the Tender Document and the Employer.
- If the Tender is withdrawn without an acceptable reason.
- If there are any corrections, deletions or interlineations except additional stamp duty to complete a shortage, the date and the signature on the form of Tender.
- If any statement made by a tenderer, either in the Tender or in his prequalification submission proves to be false and deliberately misleading.

5.4 Process to be Confidential

5.4.1 After the public opening of Tenders, information relating to the examination, clarification, evaluation and comparison of Tenders and recommendations concerning the award of contract shall not be disclosed to tenderers or other persons not officially concerned with such process until the award of Contract to the successful tenderer has been announced.

5.4.2 Any effort by a tenderer to influence the Employer in the process of examination, clarification, evaluation and comparison of bids, and in decisions concerning the award of contract, may result in the rejection of the Tender submitted by the said tenderer.

6.0 AWARD OF CONTRACT

6.1 Letter of Intent

Within 210 days of the date for opening of Tenders the Employer will request that OECF review the proposed Contract and a letter of intent will be sent to the tenderer whose Tender is found to be most suitable. The letter of intent shall not constitute a binding Contract between the Employer and the tenderer.

6.2 Approval by OECF

6.2.1 The award of Contract has to be approved by OECF. The Engineer's order to commence will not be issued until OECF has given its approval to the award of Contract and the Employer has issued the Letter of Acceptance.

6.2.2 Should OECF, for any reason decline to approve the award of Contract, then the Employer shall be entitled to withdraw the letter of intent and the tenderer shall have no

claim against the Employer for any consequence of such withdrawal.

6.3 Signing of Agreement

6.3.1 Within 7 days of receipt of the Contract Agreement (if issued), the Contractor shall sign the Form and return it to the Employer. The Contractor shall also within this period provide the performance security and proof of such insurances as required by the Contract are in force.

6.4 Employers Right to Accept or Reject Tenders

6.4.1 Notwithstanding item 6.1 above, the Employer reserves the right to accept or reject any Tender, and to annul the tendering process and reject all tenders at any time prior to award of Contract, without thereby incurring any liability to the affected tenderer or tenderers or any obligation to inform the affected tenderer or tenderers of the grounds of the Employer's action.

6.5 Notification to Unsuccessful Tenderers

6.5.1 All unsuccessful tenderers shall be informed of the result of the Tender evaluation and shall immediately return all documents not previously submitted with their tenders. The Tender Bonds will then be returned.

6.6 Withdrawal of Award

6.6.1 Should the Contractor fail to sign the Contract Agreement and/or fail to submit a satisfactory Performance Bond within the times stated, the Employer, in addition to calling the Tender Bond, shall be entitled to withdraw the Letter of Acceptance and the Contractor shall have no claim against the Employer for any consequence of such withdrawal.

APPENDIX TO THE INSTRUCTIONS TO TENDERERS

<u>APPENDIX</u>	<u>DESCRIPTION</u>
A	Outline Scope of Works
B	Notice to Tenderers
C	Examination of documents and the Site of the Works
D	Soil Investigation Report
E	Check list of documents
F	Tender Bond
G	Form of Tender
H	Appendix to the Conditions of Contract
I	Form of Agreement
J	Performance Bond
K	Form of Advance Payment Guarantee
L	Breakdown of Major Rates

OUTLINE SCOPE OF WORKS

	Major Work Items	Approx. Work Quantity	Remarks
Part I	Airside Civil Works		
A.	Earth Works		
	- Excavation	1,300,000m ³	
	- Embankment	2,600,000m ³	
	- Sandmat stabilization	1,500,000m ³	
	- Landscaping	1,850,000m ²	Sodding or seeding
B.	Pavement Works		
	- Runway pavement	290,000m ²	45cm thick concrete pavement
	- Taxiway pavement	600,000m ²	45cm thick concrete pavement
	- Apron pavement	940,000m ²	45cm thick concrete pavement
C.	Storm Water Drainage Facilities		
	<u>Area A</u>		
	- Open channels (masonry)	5,000m	
	- Open channels (U-shape)	6,200m	concrete-lined
	- Box culverts	3,000m	concrete-lined
	- Regulating pond	one set	Storage capacity : 36,500m ³
	- Pumping station	one set	Capacity 10m ³ /sec
	<u>Area B</u>		
	- Open channels (masonry)	6,100m	
	- Open channels (U-shape)	4,500m	Concrete-lined
	- Box culverts	3,200m	Concrete-lined
	- Regulating pond	one set	Storage capacity : 37,500m ³
	- Pumping station	one set	Capacity 10m ³ /sec
D.	Appurtenant Facilities		
	- Perimeter roads	12,000m	5cm thick asphalt pavement
	- Inspection & maintenance roads	4,200m	5cm thick asphalt pavement
	- Perimeter fences	16,000m	Steel-bar net, brick wall
	- Blast fences	1,420m	
Part II	Airfield Lighting System		
A	Airfield lights	1 lot	Approach lights, PAPI, Apron flood lights, VDGS, etc.
B	Power supply facilities	1 lot	2 generators (one 1400 kVA, one 880 kVA)
C	Substation buildings	1 lot	one 2-story RC with floor area of 2000 m ² , one 1-story RC with floor area of 700 m ²

Outline Scope of Works (Continued)

	Major Work Items	Approx. Work Quantity	Remarks
Part III	Fuel Supply System	One set	Storage capacity 10,000 m ³ x 6, Refueling hydrants 94, 3-story RC building with floor area of 3,000 m ²
Part IV	Fire Fighting and Rescue Facilities	One set	
A	Buildings		one 2-story RC with floor area of 3,750 m ² , one 2-story RC with floor area of 1,100 m ² , one 1-story RC with floor area of 310 m ² , one 1-story RC with floor area of 280 m ²
B	Vehicles	21 units	11 units (imported), 10 (domestic)

SHANGHAI PUDONG INTERNATIONAL AIRPORT
AIRSIDE CIVIL WORKS

NOTICE TO TENDERERS

NO:

All tenderers shall take into account in their tenders the information provided herein and enclose with their tender a copy of this notice. This notice shall be acknowledged by an authorized representative of the tenderer and attached a copy in their Tender.

Shanghai,.....

Chairman of the Tender Committee
Shanghai Municipal People's

Government

**EXAMINATION OF DOCUMENT
AND SITE OF THE WORKS**

DECLARATION

I/We, on behalf of _____
of _____

declare that we have examined the following documents comprising the Tender Document.

- Invitation to Tender.
- Instructions to Tenderers.
- Conditions of Contract
- Specification.
- Preamble to Bill of Quantities.
- Bill of Quantities.
- Drawings.
- Notices to Tenderers.

I/We further declare that I/We visited the site of the Works and have satisfied myself/ourselves of all of the conditions under which the Works are to be executed, completed and maintained.

I/We further declare that as result of such examination of the documents and the site our tender includes costs for all of the conditions, risks contingencies of any kind involved in the execution, completion and maintenance of the Works including all overhead costs and the like.

In witness whereof I/We have set my/our hand

1. Name _____
Company _____
Signature _____
Date _____

3. Name _____
Company _____
Signature _____
Date _____

2. Name _____
Company _____
Signature _____
Date _____

4. Name _____
Company _____
Signature _____
Date _____

SOIL INVESTIGATION REPORT

The attached report describes the results of the soil investigation carried out by JICA Study Team for the Employer in 1996.

Should the Tenderer wish to inspect more information on the soil investigation results, arrangements must be made with the Employer and/or the Engineer.

The Tenderer's attention is particularly drawn to clause 3.1 of the Instructions to Tenderers with respect to examination of document and site of the Work.

SOIL INVESTIGATION REPORT**1. General Geological Conditions****1.1 Topography and General Geology**

The proposed site for Pudong International Airport consists of sedimentary deposits of the Yangzhou River. After dike construction and excavation work for channels were carried out, the area is used as cultivated land now. The topography is almost flat, with an elevation of 3.5 ~ 4.4 m. The underground water level is generally between El. 2.5 and El. 3.5 m. (affected by the level of river (canal) water).

In the proposed Phase I Construction site, the strata are relatively uniform, and no marked difference is observed. Drilling positions are shown in Figure-1.1. The geological longitudinal section of the runway in the Phase I area is shown in Figure -1.2 as a representative example. The stratum structure and description of each stratum are shown in Table-1.1. Strata ③-3 and 4 exist partly in the Apron Area only.

Table-1.1 Strata Structure and Description of Each Stratum

Stratum No.	Elevation of Strata Surface (m)	Thickness of Strata (m)	N Value	Color and Soil Type	Notes
①	3.5 ~4.4	0.4~0.7 Av. 0.5		Topsoil	*Cultivated soil and road banking *Mixed with plant roots and stems
②-1	1.9 ~3.9	0.4~1.2 Av. 0.8	2~5	Brownish yellow, Silty clay	*Contains hard nucleus *Belongs to medium compressible soil
②-2	1.9 ~3.2	0.5~ 1.7 Av. 1.0	2~5	Grayish yellow, Silty clay	*Localized sandy silt. With natural cavities *Belongs to medium compressible soil.
②-3,4	0.8 ~2.1	5.0~ 8.3 Av. 6.5	3~18 Av. 9.3	Gray, Clayey~ Sandy silt	*Soil is uniform and mixed with shallow layers of fine sand *Contains small flakes of mica *Belongs to medium compressible soil
③	-6.7 ~-3.7	0.0~2.4 Av. 1.1	1~ 4	Gray, Silty clay	*Mixed with shallow layers of silty sand * Belongs to highly compressible soil
④	-8.3 ~ -4.3	8.8~ 12.8 Av. 10.7	1	Gray, Silty clay	*High water content, clay with high plasticity * Soil is uniform and mixed with shallow layers of silty sand. Shells are found on the layer bottom. * Belongs to highly compressible soil.
⑤-1 ~4	-17.8 ~ -15.8	5.3~11.3 Av.8.1	1	Gray, Clay~ Silty sand	*High water content and high plasticity; contains grayish - white silty clods, semi - decomposed plant roots and stems. *Soil is uniform and belongs to highly compressible soil.
⑦-1	-26.7 ~ -22.8	4.6~ 11.6 Av.7.5	20 ~30	Greenish yellow, Sandy silt	*Between "slight density" and "medium density"; contains mica flakes and stripped figures with ferrous penetration. *Compressibility is medium.
⑦-2	-34.4 ~-30.4		30 or more	Greenish yellow, sand mixed with silt	*Medium density; contains ferrous spots and mica flakes. *Compressibility is medium. *This layer is the primary water retaining soil in Shanghai area.

1.2 Conditions of Channels (Rivers)

The river network is highly developed in the proposed airport site. Major channels (rivers) include the Jiang Zhen river (forming the border in the northern part of the airport), the Xie Jin Hong Gang River (to be the border in the southern part), and the Pudong Canal in the east of the border of the airport. Within the site, channels running longitudinally through the runway are the Sai tong River and Bai Long River. Those crossing the site are listed from the

Cross-Section of Layers in the Runway Area (8-8' 6'-6' 10-10')

S=1/250 (Vertical) S=1/10000 (Horizontal)

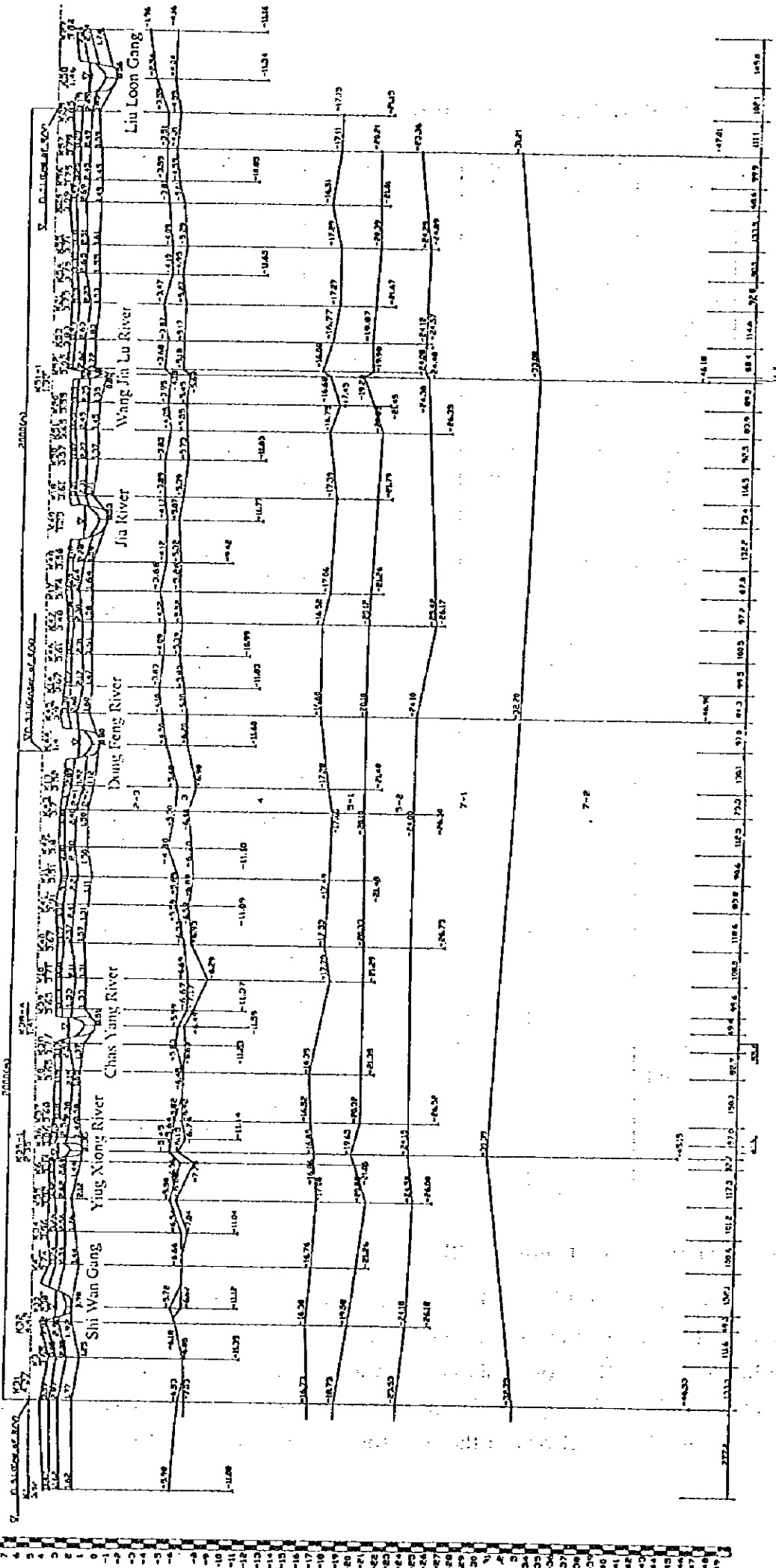


Figure-1.2 Longitudinal Geological Cross-Section of the Runway Area

Location of Drilling Survey Positions

S=1/10000

- Drilling points in the F/S stage by the Chinese side (the Runway)
- Drilling points in the detailed survey stage (the Runway)
- Drilling points in the detailed investigation stage (the Taxiway)
- Drilling points (the Apron area)

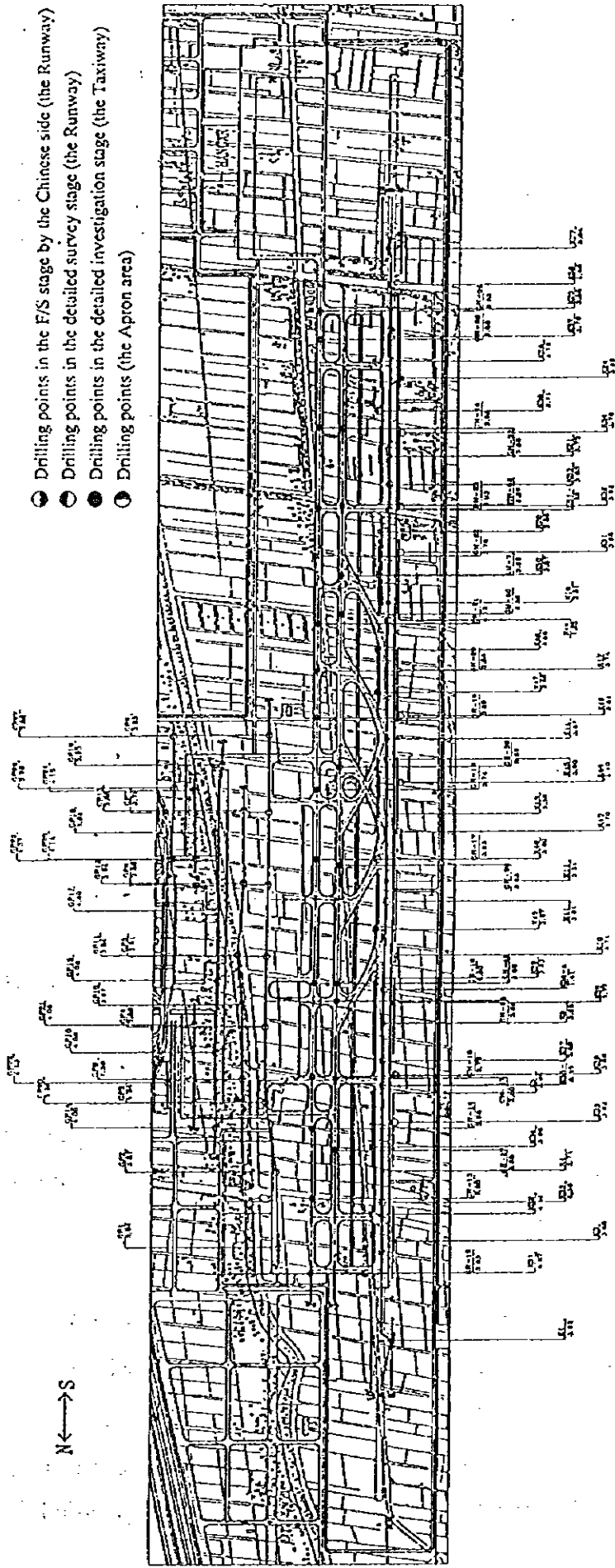


Figure-1.1 Distribution Plan of Drilling Points

northern part as follows: the Shi Wan, the Ying Xiong, the Chao Yang, the Dong Feng, the Jia, the Wang Jia Lu and the Liu Loon Gang port rivers.

These main channels (rivers) have a width of 15 ~ 30 m. They are used for transportation by boat. The water level is adjusted in the Pudong Canal to a depth of around 2.0 m. The channel bottom is about 0.0 m in elevation (above the sea level). Other than these rivers, small-sized channels with a width of 5 ~ 10 m run longitudinally and latitudinally. They are covered with duck weed. They have about 1.0 m sedimentary deposits of sludge on the river bed (see the figure below). In many places, are filled up and used as cultivated land.

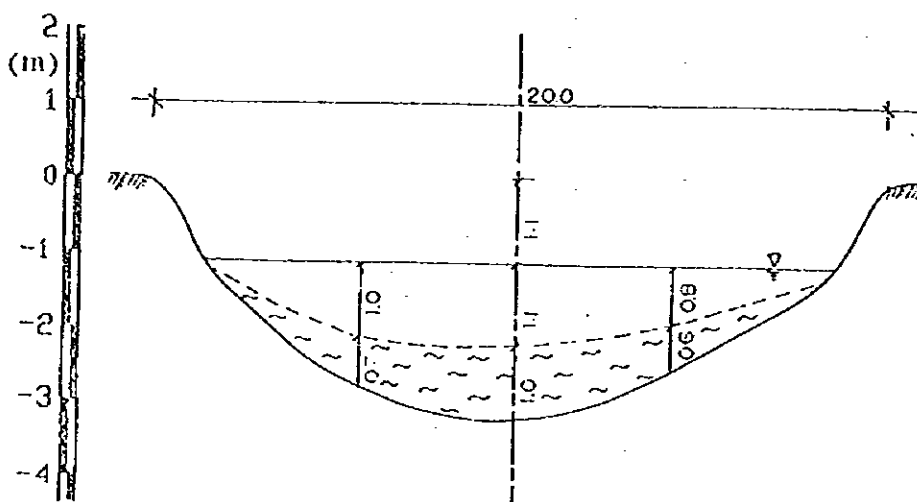


Figure-1.3 Diagrammatic Cross-Section of Channel (River) in Airport Construction Site

2. Summary of Soil Conditions

Tables 2.1(a) ~ 2.1(c) list the physical, shearing force and consolidation properties of each stratum. The values were obtained from the results of the laboratory tests conducted in the detailed-survey stage in the Runway Area.

(1) Physical Properties

Stratum ① is humus (cultivated) soil stratum containing the large amount of plant roots and stems. Soil of Strata ②-1, 2, 3, ③, ④ and ⑤-1, 2 is classified as clay. The natural water content is $W_n = 30 \sim 50\%$. On the other hand, soil of Strata ②-4 and ⑦-1, 2 is classified as silt ~ fine sand. Their sand content ratios are around 20%, 30% and 60% respectively. Among these strata, ① is necessary to be removed as topsoil.

Table-2.1(a) List of Physical Properties of Each Stratum (Average values of the results of laboratory tests in the detailed-survey stage in the Runway Area)

No. of Strata	Name	Thickness of Strata(m)	Specific Gravity	Sand Content Ratio (%)	Water Content Ratio W _w (%)	Wet Density γ (t/m ³)	Dry Density γ_d (t/m ³)	Void Ratio e	Index of Plasticity I _p	Index of Liquidation I _L
①	Cultivated soil	0.3~0.7	-	-	-	-	-	-	-	-
②-1	Silty clay	0.4~1.2	2.73	3	30.8	1.90	1.45	0.85	16.4	0.50
②-2	Silty clay	0.5~1.7	2.73	4	36.8	1.83	1.34	1.04	14.9	0.98
②-3	Clayey sil	-	-	-	-	-	-	-	-	-
②-4	Sandy sil	5.0~8.3	2.70	27	30.8	1.90	1.45	0.86	-	-
③	Silty clay	0.0~2.4	2.73	3	41.8	1.79	1.26	1.16	14.9	>1
④	Silty clay	8.8~12.8	2.75	0	51.6	1.71	1.13	1.44	20.2	>1
⑤-1	Clay	2.0~5.0	2.74	0	41.5	1.78	1.26	1.18	18.9	0.95
⑤-2	Silty clay	2.9~7.0	2.73	0	32.4	1.87	1.41	0.94	15.2	0.73
⑥-1	Sandy sil	4.6~11.6	2.70	32	25.9	1.96	1.47	0.74	-	-
⑥-2	Gray	-	2.69	57	26.4	1.94	1.53	0.75	-	-

Table -2.1(b) List of Shearign force of Each Stratum

No. of Strata	Standard Penetration N Value	Cone Penetration qc (kg/cm ²)	Base Test Cu (t/cm ²)	Unconfined Compression Test qu (t/cm ²)	Direct Shear Test		Triaxial Compression Test						
					C (t/cm ²)	ϕ (°)	UU Test			CU(CD) Test			
							Cu (t/cm ²)	ϕ_u (°)	C _{cu} (t/cm ²)	ϕ_{cu} (°)	C _{c(CD)} (t/cm ²)	$\phi_{c(CD)}$ (°)	
①	-	-	-	-	-	-	-	-	-	-	-	-	-
②-1	3.0	8.0	-	-	2.5	22.4	6.3	1.7	2.9	-	22.0	2.4	27.2
②-2	2.1	4.8	-	-	1.8	18.8	3.8	1.5	2.3	-	21.2	1.8	28.3
②-3	-	-	-	-	-	-	-	-	-	-	-	-	-
②-4	10.3	15.6	-	-	0.6	30.7	-	-	0.7	-	26.3	0.3	31.8
③	1.3	5.4	-	-	1.4	17.2	1.8	0.5	1.9	-	20.3	1.4	28.0
④	1.1	5.0	3.2	-	1.1	11.0	1.9	0.0	-	-	-	-	-
⑤-1	-	7.4	4.2	-	1.7	15.5	-	-	-	-	-	-	-
⑤-2	-	9.6	4.8	-	2.0	21.2	-	-	-	-	-	-	-
⑥-1	25.5	69.4	-	-	0.8	30.9	-	-	-	-	-	-	-
⑥-2	40.5	153.1	-	-	0.3	35.1	-	-	-	-	-	-	-

Table I - 2.1(c) List of consolidation Properties of Each Stratum

No. of Strata	Coefficient of Volume Compressibility m_v (E-2cm ² /kgf)						Coefficient of consolidation C_v (cm ² /day)						Consolidation yield stress Pc (kgf/cm ²)	Compression Index C_c
	0.0~0.5	0.5~1.0	1.0~2.0	2.0~3.0	3.0~4.0	4.0~6.0	0.0~0.5	0.5~1.0	1.0~2.0	2.0~3.0	3.0~4.0	4.0~6.0		
	①	-	-	-	-	-	-	-	-	-	-	-		
②-1	-	-	1.85	-	-	-	128	182	241	-	-	-	1.50	0.208
②-2	-	-	2.52	-	-	-	463	431	353	-	-	-	1.06	0.273
②-3	-	-	-	-	-	-	-	-	-	-	-	-	2.04	0.279
②-4	-	-	1.05	-	-	-	737	546	439	-	-	-	1.50	0.111
③	-	-	3.50	-	-	-	365	453	319	-	-	-	0.98	0.317
④	-	-	4.67	-	-	-	82	95	99	-	-	-	1.29	0.467
⑤-1	-	-	3.07	-	-	-	150	142	134	-	-	-	2.45	0.332
⑤-2	-	-	2.28	-	-	-	392	331	326	-	-	-	2.92	0.225
⑥-1	-	-	0.91	-	-	-	-	-	-	-	-	-	4.13	0.087
⑥-2	-	-	0.61	-	-	-	-	-	-	-	-	-	-	-

(2) Shearing force

Soil of Strata ②-1, 2, 3, 4, ③, ④ and ⑤-1, 2 is classified as clay. They consist of soft clay with N value of 3 or less. Their shearing force is low. On the other hand, the soil of Stratum ② -4 is viscous alluvium. Its N value is relatively as high as around 10. It also shows high shearing force. Strata ⑦-2 has high N value of about 40, and is judged to be a bearing layer for pile foundation etc.

(3) Consolidation Characteristics

Soil of Strata ②-1, 2, 3, 4, ③, ④ and ⑤ is classified as clay. They consist of soft clay with N value of 3 or lower. Their coefficients of volume compressibility are relatively high around $mv = 5 \times 10^{-2} \text{ cm}^2/\text{kgf}$. In addition, the coefficients of consolidation are as small as $200 \text{ m}^2/\text{day}$ or less. These strata show representative consolidation characteristics. Particularly Strata ④ and ⑤-1, 2 are so thick as to show relatively large settlement. As to Strata ⑦-1 and 2, the coefficients of volume compressibility are as small as $mv = 1 \times 10^{-2} \text{ cm}^2/\text{kgf}$ or less. The consolidation yield stress is also high. That the strata show little settlement. Stratum ⑦-2 is also a water-retaining layer, therefore, it is expected to function as a drainage layer.

3. Characteristics as Fill Material and Subgrade Bearing Capacity

Strata ②-1 and 2 will be used as fill materials. At the same time, they will be also used as the subgrade course. The results of the laboratory tests for compaction and CBR are shown in Table -3.1(a). Tables -3.1(b) and -3.1(c) show the results of in-situ tests for density, water content, and CBR. The results of laboratory tests show higher values of both density and CBR than those of in-situ tests. Both strata have high water content in their natural state. Namely, they are loosely sedimented and have the possibility to be improved by compaction.

Table -3.1(a) Results of Laboratory Tests for compaction and CBR of Fill Materials around the Airport Site

	Test No.	Compaction Test						CBR Test(submerged)		
		Max. Dry Density			Optimum Water Content			CBR 25		
		Minimum	Maximum	Average	Minimum	Maximum	Average	Minimum	Maximum	Average
Fill Materials around the site	8	1.74	1.78	1.76	17.2	19.0	18.0	5.4	7.9	7.0
Stratum ②-1	13	1.75	1.77	1.76	17.2	19.0	18.0	6.5	8.3	7.2
Stratum ②-2	13	1.73	1.79	1.77	16.9	18.5	17.6	6.0	8.0	6.7
Sludge on the channel bottom	3	1.74	1.75	1.74	19.5	20.0	19.7	4.6	5.1	4.8

Fill Materials around the site: Test results of the additional survey in the FS (feasibility study) stage strata ②-1,2, sludge on the channel bottom: Test results of the detailed survey

Table -3.1 (b) Results of the Field Tests fore Density, Water Content and CBR in Subgrade Parts (Stratum ②-1) in Each Area

	Test No.	Tests for Density and Water Content						Field CBR Test		
		Dry Density ρ_{dn} (t/ m ³)			Natural Water Content W _b (%)			CBR 25 (%)		
		Minimum	Maximum	Average	Minimum	Maximum	Average	Minimum	Maximum	Average
Runway Area	20	1.44	1.55	1.48	26.3	31.3	29.2	2.8	4.4	3.6
Taxiway Area	9	1.40	1.53	1.46	28.0	33.9	31.2	1.5	5.4	3.8

Runway Area: Test results during the survey in the FS stage
Taxiway Area: Test results during the detailed survey

Table -3.1 (c) Results of Field Tests for Plate Loading During Detailed Survey in Each Area

Ground Bearing Capacity (kgf / cm ²)			Coefficient of Deformation E ₀ (kgf / cm ²)			Coefficient of Expansion E _{cr} (kgf / cm ²)			Coefficient of Bearing Capacity k ₇₅ (kgf / cm ²)		
Minimum	Maximum	Average	Minimum	Maximum	Average	Minimum	Maximum	Average	Minimum	Maximum	Average
0.64	1.02	0.89	44.7	105.8	71.7	116	228	157	1.25	2.91	1.72
0.69	1.04	0.90	57.8	129.6	80.4	90	249	144	1.84	3.31	2.54
0.54	0.82	0.63	27.7	40.4	33.9	89	125	100	1.77	2.86	2.39

Upper row: Runway area (11), Middle row: Taxiway area (10), Lower row: Apron area (8) Figures in () are the number of the test