KINGDOM OF THAILAND MINISTRY OF TRANSPORT AND COMMUNICATIONS AIRPORTS AUTHORITY OF THAILAND

AGREEMENT

FOR CONSULTANCY SERVICES

FOR

THE DESIGN AND PREPARATION OF TENDER DOCUMENTS FOR THE AIRFIELD PAVEMENTS

FOR

THE SECOND BANGKOK INTERNATIONAL AIRPORT

BETWEEN

AIRPORTS AUTHORITY OF THAILAND

AND

DMJM INTERNATIONAL
SCOTT WILSON KIRKPATRICK & PARTNERS
NORCONSULT INTERNATIONAL A.S.
SPAN Co., Ltd.
SOUTHEAST ASIA TECHNOLOGY Co., Ltd.

MAY 1995

ได้รับคู่ฉุนับไว้แล้ว

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Airside Design Group

3rd Floor, Gold Pi Tower 109/33-43 Ngam Wong Wan Road Lardyao, Chatujak Area Bangkok 10900

Tel: 953 1184-7 Fax: 953 1181

21 April 1997

New Bangkok International Airport Co., Ltd. 19 SCB Park Plaza East Building 3. 20th Floor Ratchadapisek Road, Lardyao, Bangkok 10900

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Attention: Dr. Priti Hetrakul

Dear Sir,

In response to your letter No.NBIA(L.G.)/369 dated April 2,1997, we can understand that the Construction Plan for the Second Bangkok International Airport Project may have to be adjusted according to the Cabinet's resolution on February 11,1997. In case the Project is downsized or more appropriate technology is specified or recommended by ICAO, IATA or other acceptable similar Institutions before or during the construction period, we can modify our design in accordance with the provisions of Clause No. 1.8.2 of our Contract Agreement for Consultancy Services.

Sincerely yours,

Garrett Hitchcock Project Manager

CC: Mr. Pramual Hutasingh

econd Bangkok International Airport: Design Team for Airfield **Pavements** Scott Wilson Kirkpatrick

national

Norconsult International SEATEC

- 1.7.6 Expenses covering salary, travelling expenses and all other expenses of any nominee not listed in Appendix B, who departs for Thailand (in the case of foreign professional personnel) or starts to work (in the case of local professional personnel) before the approval of the AAT and is rejected afterwards by the AAT as described in clause 1.7.3, 1.7.4 and 1.7.5 shall be borne by the Design Engineer.
- 1.7.7 Those personnel whose records of education and experience are mentioned in Appendix B are hereby considered approved.
- 1.7.8 The AAT may, at any time, instruct the Design Engineer to remove from the sites or offices, any person employed by the Design Engineer or brought to perform the Services by the Design Engineer, if in the opinion of the AAT, such person misconducts himself or is incompetent or negligent in the proper performance of his duties or his removal is required for any other reasons at the discretion of the AAT, and the Design Engineer shall arrange to fulfill such demand immediately and shall take such measures as will enable him to carry on his duties without delay.
- 1.7.9 The Design Engineer may remove and change his personnel for suitability in the performance of the Services and for the benefit of the AAT or of the Services under this Agreement, only with the prior written approval from the AAT.
- 1.7.10 The Design Engineer's Project Manager shall be the representative in charge of and responsible for the Services and for liaison between the AAT and the Designa Engineer.

REMUNERATION OF THE DESIGN ENGINEER

- 1.8.1 The AAT shall remunerate the Design Engineer in respect of the Services in accordance with the conditions set forth in Appendix C of this Agreement.
- 1.8.2 In the event of any services being required supplementary to those detailed in Appendix A of this Agreement due to any alteration or modification as agreed between the parties, the AAT and the Design Engineer shall make the supplementary agreement mentioned in clause 1.2.4 and the Design Engineer shall receive additional remuneration including reimbursable costs (if any) which shall be computed on the same basis as specified in Appendix C.
- 1.8.3 In the case of delay caused by the AAT's fault to the extent that such delay results in extra cost, the AAT and the Design Engineer shall make the supplementary greement and the Design Engineer shall be entitled to additional remuneration. Such additional remuneration shall be calculated on the same charges rates as set forth in the Attachment of Appendix C.

Agreement for Engagement of Design Engineer

Agreement No. SBIA5/2538

This Agreement is executed and delivered this .1.2... day of May B.E. 2538 (A.D. 1995) at AAT Headquarters, Bangkok, Thailand between The Airports Authority of Thailand represented by Air Marshal Taworn Kerdsin, Managing Director, hercinafter called "The AAT" of the one part and DMJM International incorporated under the law of the United States of America with its registered business office at 1525 Wilson Boulevard, Suite 1100, Arlington, Virginia 22209, USA represented by Brian T Harris (Vice President); Scott Wilson Kirkpatrick & Partners incorporated under the law of England with its registered business office at Scott House, Basing View, Basingstoke, Hampshire, England, represented by Ronald R Thomson (Manager, Thailand); Norconsult International A.S. incorporated under the law of Norway with its registered business office at Vestfjordgaten 4, 1300 Sandvika, Norway, represented by Thor Chr. Krogh (Manager, Thailand); Span Co., Ltd. incorporated under the law of Thailand with its registered business office at 3rd Floor, 57/31-33 Wireless Road, Bangkok 10330, represented by Koompol Sabhavasu (Managing) Director); and Southeast Asia Technology Co., Ltd. incorporated under the law of Thailand with its registered business office at 257 Soi Charoen Mitr, Sukhumvit 71, Klongtan, Klongtoey, Bangkok 10110, represented by Dr. Krai Soongswang (Vice President); hereinafter called "The Design Engineer" of the other part.

the five (5) companies collectively referred to above as the Design Engineer undertake to the perform and jointly and severally be responsible for and liable to perform the Services the AAT pursuant to the terms and conditions hereof.

iments evidencing such registration of the Design Engineer and the authority of the to sign on behalf of the Design Engineer are attached hereto.

s the AAT is desirous that consulting services be rendered for the following

he Design and Preparation of Tender Documents
for the Airfield Pavements
for the Second Bangkok International Airport

declared by and between the parties hereto as follows:

ovs the Design Engineer and the Design Engineer accepts the and conditions as laid down in the Conditions of Agreement (Parts I seed hereto and made a part hereof.

Agreement 1

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Appendix A

Scope of Services (including the Terms of Reference and additional

services proposed by the Design Engineer and accepted by the AAT) and

Work Schedule

Appendix B

Design Engineer's Personnel and Manning Schedule

Appendix C

Remuneration and Method of Payment

Appendix D

Form of Retention Guarantee

Appendix E

Company Registration and Power of Attorney

In case of inconsistency between the Conditions of Agreement (Parts I and II) and the Appendices, the former shall prevail.

This Agreement is executed in two (2) identical counterparts, one for the AAT, the other for the Design Engineer.

This document comprises the entire agreement between the Design Engineer and the AAT and supersedes any previous discussions, statements, correspondence or verbal agreements made between the parties.

Both parties have read and understood all terms and conditions of this Agreement and have hereto appended their respective signatures and affixed their seals (if any) in the presence of witness.

HE AIRPORTS AUTHORITY OF THAILAND

Air Marshal .

(TAWORN KERDSIN) Managing Director

Vice President

DMIM International

Ronald R Thomson)

Manager, Thailand

Scott Wilson Kirkpatrick & Partners

r, Thailand

Norconsult International A.S.

(Koompol Sabhavasu) Managing Director Span Co., Ltd.

greement 2



By (Dr Krai Soogswaza Vice President

Southeast Asia Technology Co., Ltd.

Witness

(Mrs. SOPAR ROJNUCKRIN)

Witness Sen +

Witness Group Captain Udom Prumave Witness (UDORN BURANAJARU)

(Ragnat Kjelby

CONDITIONS OF AGREEMENT

PART I

GENERAL CONDITIONS

PART II

CONDITIONS OF PARTICULAR APPLICATION

PART I

GENERAL CONDITIONS

1.1 GENERAL PROVISIONS

1.1.1 SCOPE OF SERVICES

The Services to be performed by the Design Engineer under this Agreement (hereinafter called "the Services") are described in the Scope of Services set forth in Appendix A.

1.1.2 PLACE OF PERFORMANCE OF SERVICES

The Design Engineer has to maintain his office and perform his services in Thailand in accordance with the Scope of Services. He may, with the approval of the AAT, carry out designs, research and special investigations in other countries when they are deemed necessary.

1.1.3 LAWS TO BE OBSERVED

In the performance of Services under this Agreement, the Design Engineer and his personnel shall observe and comply with all Thai laws, ordinances and regulations.

1.1.4 LANGUAGE AND LAW

(a) This Agreement is executed in English.

(b) This Agreement shall be subject to Thai law.

(c) All notices, instructions, correspondence and any other written documentation concerning this Agreement between the AAT and the Design Engineer shall be in English.

1.1.5 WEIGHTS AND MEASURES

The SI system of weights and measures shall be used, unless otherwise specified in Part II of this Agreement.

1.1.6 HEADINGS

The headings in these Conditions of Agreement (Parts I and II) shall not be deemed to be part thereof or taken into consideration in the interpretation of this Agreement.

1.1.7 NOTICES

All notices under this Agreement shall be given in writing and shall be deemed to have been given if delivered by one of the following means:

- personal delivery to the designated representative of each of the parties
- by telex
- by fax, confirmed by subsequent receipt of the original
- by telegram
- by registered mail

to the specific names and addresses of the parties specified in Part II of this Agreement.

1.2 COMMENCEMENT, COMPLETION, ALTERATION AND TERMINATION OF THE AGREEMENT

1.2.1 AGREEMENT IN FORCE

This Agreement shall come into force immediately upon its signing of all the necessary signatures by the parties.

1.2.2 COMMENCEMENT DATE

The Design Engineer shall commence the Services within the period stated in clause 1.2.2 of Part II of these Conditions of Agreement.

1.2.3 COMPLETION DATE

The Services shall be completed within the period stated in clause 1.2.3 of Part II of these Conditions of Agreement or as alternatively agreed in writing between both parties.

1.2.4 ALTERATION

Should circumstances arise which call for alterations or modifications of this Agreement, these may be made by the written supplementary agreement executed in the same formalities as this Agreement. Proposals in this respect from one party shall be given due consideration by the other party.

1.2.5 ASSIGNMENT

- 1.2.5.1 The Design Engineer shall not subcontract, assign, transfer or otherwise make any other disposal of the whole or part of the Services under this Agreement to others without first obtaining the written consent of the AAT. Should the said consent be obtained from the AAT, the Design Engineer shall remain fully and unseverably responsible for the Services under this Agreement.
- 1.2.5.2 The Design Engineer shall not, without the written consent of the AAT, assign any rights or benefits other than the assignment of any money due or to become due under this Agreement to others.

1.2.6 SUSPENSION AND TERMINATION

1.2.6.1 NOTICE BY THE AAT

- (A) The AAT is entitled to terminate this Agreement if the AAT is of the opinion that the Design Engineer has not exercised the professional skill and care which can be expected from the Design Engineer as provided in clause 1.3.1 or has not complied with any of the terms and conditions specified in this Agreement. In such case, the AAT will notify the Design Engineer in writing specifying the reasons for the termination. Should the Design Engineer fail to satisfy the AAT within thirty (30) days, from the date of receiving the written notice, the AAT is entitled to terminate this Agreement by delivery of written notice of termination to the Design Engineer. Upon receipt of the notice of termination, the Design Engineer shall take immediate steps to bring the Services to a close and to reduce expenditures to a minimum.
- (B) The AAT may, at any time, give prior written notice to the Design Engineer of his intention to suspend the Services, in whole or in part, or to terminate this Agreement. The effective date of termination of this Agreement shall not be less than sixty (60) days after receipt of such notice, or such other shorter or longer period as may be agreed between the two parties. Upon receipt of such notice, the Design Engineer shall take immediate steps to bring the Services to a close and to reduce expenditures to a minimum.

1.2.6.2 NOTICE BY THE DESIGN ENGINEER

The Design Engineer is entitled to terminate this Agreement if the AAT does not fulfill its obligations under this Agreement. In such case, the Design Engineer will notify the AAT in writing and will specify and detail the causes and reasons why termination is being claimed. Upon receipt of such notice, the AAT may have the opportunity to satisfy the

Conditions 3

Design Engineer within thirty (30) days. If the AAT fails to satisfy the Design Engineer within the aforesaid period, then the Design Engineer is entitled to terminate this Agreement by delivery of written notice of termination to the AAT.

1.2.6.3 FORCE MAJEURE

- (A) "Force majeure" denotes any event, the happening or pernicious results of which could not be prevented even though a person against whom it happened or threatened to happen were to take such appropriate care as might be expected from him in his situation.
- (B) If either party is unable by reason of Force Majeure to perform his obligations under this Agreement, such party shall notify the event in writing to the other party within fourteen (14) days after its occurrence. The latter party shall, within reasonable time after the date of receiving such notification, study, determine and notify the former party whether he shall accept the existence of Force Majeure.
- (C) During the existence of Force Majeure, the obligations and responsibilities of both parties shall be suspended, unless otherwise provided elsewhere in this Agreement. The schedules of performance of Services hereunder shall be extended for a period equal to the delay resulting from Force Majeure.
- (D) If any party is unable to perform or accept the performance of the Services, wholly or partly, under this Agreement due to Force Majeure for a period exceeding sixty (60) days, after the date of the notice referred to in paragraph (B) each party is entitled to terminate this Agreement by delivery of written notice to the other party not less than fifteen (15) days in advance.

1.2.7 ENTITLEMENT OF THE PARTIES UPON SUSPENSION OR TERMINATION

- 1.2.7.1 Upon suspension of this Agreement under clause 1.2.6.1 (B), the AAT shall pay the Design Engineer the amount of such expenses necessary for maintenance of his personnel as shall be agreed upon by the parties.
- 1.2.7.2 Upon termination of this Agreement under clause 1.2.6.1 (A), the AAT shall pay a fair and reasonable proportion of remuneration as provided in Appendix C of this Agreement, calculated from the day on which the Services is commenced up to the date of termination of this Agreement. In this case, the AAT has the right to retain the accrued retention money retained in Appendix C or forfeit the retention guarantee as specified in Appendix C by claiming against the bank issuing the retention guarantee in whole or in part as the AAT may deem appropriate.

- 1.2.7.3 Upon termination of this Agreement under clause 1.2.6.1 (B) or 1.2.6.2, the AAT shall pay a fair and reasonable proportion of remuneration as provided in Appendix C to this Agreement, calculated from the day on which the Services is commenced up to the date of termination of this Agreement. In these cases the AAT shall also reimburse all the accrued retention money retained in Appendix C or release the retention guarantee as the case may be together with compensation for all traveling and out-of-pocket expenses actually and reasonably incurred in so far as these payments have not previously been made or covered by the lump sum installment (s) to be paid. In no event shall the compensation and all previous payments exceed the total of the amount specified in Appendix C of this Agreement or any subsequent amendments thereof.
- 1.2.7.4 Upon termination of this Agreement under clause 1.2.6.3 (D), the AAT shall pay a fair and reasonable proportion of remuneration as provided in Appendix C to this Agreement, calculated from the day on which the Services are commenced up to the date of termination of this Agreement. In this case, the AAT shall also reimburse all the accrued retention money retained in Appendix C or release the retention guarantee as the case may be.

1.2.8 CLAIMS FOR TERMINATION UPON DEFAULT

Any claims for damages arising out of termination upon default shall be agreed between the AAT and the Design Engineer. However, in case of termination upon default of the Design Engineer, the AAT shall have the right to claim compensation for damages and make use of the retention money retained under clause 1.2.7.2 or the money paid by the bank issuing the retention guarantee, as the case may be.

1.2.9 RIGHTS AND LIABILITIES OF PARTIES

Termination of this Agreement, for whatever reasons, shall not prejudice or affect the accrued rights, claims and liabilities of each party to this Agreement.

1.3 THE RIGHTS AND DUTIES OF THE DESIGN ENGINEER

1.3.1 The Design Engineer shall exercise all reasonable skill, care and due diligence and efficiency in the performance of the Services under this Agreement and shall carry out all his responsibilities in accordance with recognized international professional standards. The Design Engineer, his employees and sub-contractors, while in Thailand where the Services are being carried out, shall respect the laws and customs of Thailand. The Design Engineer shall replace employees and sub-

Conditions 5

- contractors who commit serious violations of the laws of Thailand with others of equal competence satisfactory to the AAT at the expense of the Design Engineer.
- 1.3.2 The remuneration of the Design Engineer charged to the AAT according to Appendix C shall constitute his only remuneration in connection with this Agreement and neither he nor his personnel shall accept any trade commission, discount, allowance, other direct or indirect payment or other consideration in connection with or in relation to this Agreement or to the discharge of his obligations thereunder.
- 1.3.3 The Design Engineer shall not have the benefit, whether directly or indirectly, of any royalty or of any gratuity or commission in respect of any patented or protected article or process used on or for the purposes of this Agreement unless it is mutually agreed in writing that he may.
- 1.3.4 The Design Engineer will provide all the expert technical advice and skill which are normally required for the class and nature of Services for which he is engaged. Where specialists, technical advice or assistance is required, beyond that committed under the Scope of Services in Appendix A, the Design Engineer may, with the prior written agreement of both parties, arrange for the provision of such additional service(s). The AAT shall pay for all additional service(s) under the said additional agreement. However, the Design Engineer shall remain fully and unseverably responsible for all the Services which he is committed to render under this Agreement.
- 1.3.5 The copyright of all documents prepared by the Design Engineer in connection with this Agreement rests with the AAT. All documents prepared by the Design Engineer in connection with this Agreement shall be confidential and shall be the property of the AAT. The Design Engineer shall deliver all these documents to the AAT upon the completion of this Agreement. The Design Engineer may take copies of such documents but shall not use the contents thereof for any purposes unrelated to the Services without the prior written approval of the AAT.
- 1.3.6 The Design Engineer shall procure all permits and licenses, pay all charges, custom duties, stamp duties, fees, taxes and duties, and submit all applications necessary and incidental to the due and lawful prosecution of the Services under this Agreement. The Design Engineer shall be subject to the deduction of corporate income tax and other taxes as provided by Thai laws and shall enable his employees to pay income taxes on their salaries or other money derived as specified under the existing laws or laws enacted during the tenure of this Agreement, and the Design Engineer shall be subject to the deduction of income taxes of the aforesaid persons and to all necessities as provided by law.

LIABILITY OF THE DESIGN ENGINEER

- 1.4.1 The Design Engineer shall indemnify and hold harmless the AAT from and against any and all claims, damages, expenses or costs, including those asserted by third parties, arising as a consequence of the errors or omissions on his part or on the part of his employees.
- 1.4.2 The Design Engineer shall be liable for any violations of legal provisions or rights of third parties in respect of patents or copyrights introduced into the Services by him.
- 1.4.3 Unless otherwise provided by this Agreement, the Design Engineer shall, at his own cost, take out and maintain insurance against third party liability and against loss of or damage to equipment and materials purchased with funds provided under the reimbursable items by the AAT, for the sole use of the Design Engineer in the execution of the Services.
- 1.4.4 The Design Engineer has no liability whatsoever
- (1) for any damages resulting from any act of the AAT without any fault of the Design Engineer contributed.
- (2) for any damages caused by the contractors or the suppliers which are not covered by either the Design Engineer's Scope of Services or by the Design Engineer's instructions or written advice, and
- (3) for injuries or damages to persons or property which could not be prevented even though the Design Engineer took such appropriate care as might be expected from the reasonable and prudent Design Engineer who renders the same consulting services as the Services under the Design Engineer's situation in connection with the execution of his duties under this Agreement.

1.5 OBLIGATIONS OF THE AAT

1.5.1 The AAT shall furnish, without charge and within a reasonable time, all pertinent data and information available to the AAT and shall give such assistance as shall be reasonably required by the Design Engineer for carrying out his duties under this Agreement. The AAT shall give its decision on all sketches, drawings, reports, recommendations and other matters properly referred to it for decision by the Design Engineer in such reasonable time as not to delay or disrupt the performance by the Design Engineer of his Services under this Agreement. In this connection, the AAT shall designate a representative as agent empowered to act on behalf of the AAT under this Agreement and to give approval to any activities relating to the Services under this Agreement. Approval, recommendations or decision by the AAT or its agent as mentioned above shall

- not exempt the Design Engineer from his obligation and liability under this Agreement.
- 1.5.2 If necessary, the AAT shall assist the Design Engineer and his personnel or any experts or subcontractors who might be engaged by him for carrying out the Services in registering or obtaining permits to practice the profession necessary to perform the Services under this Agreement according to the law of Thailand.
- 1.5.3 The AAT shall assist the Design Engineer's personnel and their dependents, where applicable, to obtain any necessary visas, residence permits, exchange permits, tax clearance certificates and necessary documents required for their stay in and departure from Thailand.
- 1.5.4 The AAT shall provide assistance to facilitate clearance through customs of any equipment, materials and supplies required for the Services.
- 1.5.5 The AAT shall provide the Design Engineer and his personnel access to sites and locations involved in carrying out the Services.

1.6 SETTLEMENT OF DISPUTES

- 1.6.1 Any disputes or difference arising out of or in connection with this Agreement or the implementation of any of the provisions of this Agreement which cannot be settled amicably shall be submitted to arbitration.
- 1.6.2 Unless both parties agree in the appointment of a single arbitrator, either party shall serve upon the other a notice of intention to submit the dispute or the difference to arbitration and specify the name of an arbitrator to be appointed by him. Then, the dispute or the difference shall be referred to the issuing two arbitrators, one to be appointed by party as aforesaid and the other one to be appointed by the other party within thirty (30) days after receipt of the notice. If the two arbitrators are unable to agree on such dispute or difference, an umpire shall be appointed by the two arbitrators within thirty (30) days from the date ϕf disagreement. The umpire so appointed shall resolve this dispute or difference. Any decision or award given by the single arbitrator or the two arbitrators jointly. or the umpire in case the two arbitrators disagree, shall be final, conclusive and binding upon the parties hereto. The arbitral proceeding shall follow the Rule of Arbitration of the Ministry of Justice's Arbitration Office or any rule as agreed by both parties and shall be conducted in Bangkok. Should either party be unable to appoint an arbitrator or in case of disagreement as regards to the appointment of an umpire, each party is entitled to refer the matter to the Civil Court in Bangkok, Thailand for the appointment of arbitrator or umpire as the case may be.
- 1.6.3 Each party shall bear the cost of his own arbitrator's service and share equally other cost of all proceedings. In case a single arbitrator is appointed, each party shall share the cost of the arbitrator as decided by him. In case an umpire is

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appointed; whether the whole cost of the umpire's service and other cost of all proceedings are to be paid by one party or to be shared between both parties and in what proportion shall be decided by the arbitrators, or in case the arbitrators disagree, the umpire shall make the decision.

- 1.6.4 The submission of any matter in dispute or difference to the arbitration proceedings, as aforesaid, shall be a condition precedent to the right of institution of court action.
- 1.6.5 This Agreement shall be construed according to the laws of the Kingdom of Thailand. Each party shall have the right to institute suit against the other in the Civil Court in Bangkok, Thailand, to enforce any decision or award rendered in arbitration proceedings.

1.7 PERSONNEL

- 1.7.1 The Design Engineer shall fulfill his obligations under this Agreement by using the best technical knowledge and in accordance with accepted professional standards. To this end, the Design Engineer shall provide adequate professional and experienced personnel related to the Services mentioned in Appendix A.
- 1.7.2 The Services shall be carried out by personnel specified in Appendix B hereof for the respective periods of time indicated therein, provided that the Design Engineer may, with the prior written consent of the AAT, make such reasonable adjustment in such periods as may be appropriate to ensure the efficient performance of the Services.
- 1.7.3 For foreign professional personnel other than those listed in Appendix B, the Design Engineer shall submit biographical data, including education and experience, relating to each employee proposed, to the AAT for approval not later than thirty (30) days prior to that employee's departure for Thailand to perform his work.
- 1.7.4 For local professional personnel other than those listed in Appendix B, the Design Engineer shall submit biographical data, including education and experience, relating to each employee proposed, to the AAT for approval not later than fifteen (15) days before allowing that employee to start his work.
- 1.7.5 The AAT shall examine the biographical data, including education and experience within the period of fifteen (15) days from the day on which details have been received by the AAT. The AAT may approve or reject the individual concerned, or may request for additional details from the Design Engineer. If the AAT does not give any objection or request for additional data within the period mentioned above (15 days), it will be considered that the individual is approved.

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- 1.7.6 Expenses covering salary, travelling expenses and all other expenses of any nominee not listed in Appendix B, who departs for Thailand (in the case of foreign professional personnel) or starts to work (in the case of local professional personnel) before the approval of the AAT and is rejected afterwards by the AAT as described in clause 1.7.3, 1.7.4 and 1.7.5 shall be borne by the Design Engineer.
- 1.7.7 Those personnel whose records of education and experience are mentioned in Appendix B are hereby considered approved.
- 1.7.8 The AAT may, at any time, instruct the Design Engineer to remove from the sites or offices, any person employed by the Design Engineer or brought to perform the Services by the Design Engineer, if in the opinion of the AAT, such person misconducts himself or is incompetent or negligent in the proper performance of his duties or his removal is required for any other reasons at the discretion of the AAT, and the Design Engineer shall arrange to fulfill such demand immediately and shall take such measures as will enable him to carry on his duties without delay.
- 1.7.9 The Design Engineer may remove and change his personnel for suitability in the performance of the Services and for the benefit of the AAT or of the Services under this Agreement, only with the prior written approval from the AAT.
- 1.7.10 The Design Engineer's Project Manager shall be the representative in charge of and responsible for the Services and for liaison between the AAT and the Design Engineer.

1.8 REMUNERATION OF THE DESIGN ENGINEER

- 1.8.1 The AAT shall remunerate the Design Engineer in respect of the Services in accordance with the conditions set forth in Appendix C of this Agreement.
- 1.8.2 In the event of any services being required supplementary to those detailed in Appendix A of this Agreement due to any alteration or modification as agreed between the parties, the AAT and the Design Engineer shall make the supplementary agreement mentioned in clause 1.2.4 and the Design Engineer shall receive additional remuneration including reimbursable costs (if any) which shall be computed on the same basis as specified in Appendix C.
- 1.8.3 In the case of delay caused by the AAT's fault to the extent that such delay results in extra cost, the AAT and the Design Engineer shall make the supplementary agreement and the Design Engineer shall be entitled to additional remuneration. Such additional remuneration shall be calculated on the same charges rates as set forth in the Attachment of Appendix C.

PAYMENTS TO THE DESIGN ENGINEER

- 1.9.1 The AAT shall affect payment to the Design Engineer in accordance with the payment schedules and in the manner set forth in Appendix C.
- 1.9.2 Amount due to the Design Engineer shall be paid to the Design Engineer not later than forty-five (45) days from the date of receipt of the complete invoice accompanied by all required documentation.
- 1.9.3 Subject to the laws, ordinances and regulations enforced in Thailand, all payments made to the Design Engineer on account of foreign exchange costs shall be available for repatriation by the Design Engineer.
- 1.9.4 Whenever it shall be necessary to value one currency in terms of another for the purpose of the payment of an amount specified in Appendix C, the rate of exchange applicable shall be the selling rate published by the Krung Thai Bank on the date the payment is made.

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ART II: CONDITIONS OF PARTICULAR APPLICATION

ection 1.1.7 NOTICES

The AAT's address:
Air Marshal Taworn Kerdsin
Managing Director
Airports Authority of Thailand
Headquarters Building
171 Vibhavadi Rangsit Road
Bangkok 10210, Thailand

The AAT's alternative address for cables, telex and fax:

Cable Address :

Airporthai Bangkok Thailand

Telex Number (s)

TH 87424 AIRHOTL

TH 87425 AIRHOTL

Fax Number (s)

535-3010

The Design Engineer's address:

Allan M Shapiro Project Manager DMJM International 183/41 Sailom Condotel Vibhavadhi Rangsit Road Bangkok 10210, Thailand

The Design Engineer's alternative address for cables, telex and fax:

Cable Address

: Not applicable

Telex Number (s)

: Not applicable

Fax Number (s)

: 565-5736

Section 1.2.2 COMMENCEMENT DATE

The Design Engineer shall commence the Services within thirty (30) days after signing this Agreement and notify AAT in writing specifying the Commencement Date which shall be considered as starting date of the Services. The Commencement Date shall replace the Notice to Proceed (NTP) in Table 3.1 on page 3-9 of the TOR-006.

Section 1.2.3 COMPLETION DATE

The Services of the Design Engineer shall be completed within five hundred and forty-five (545) calendar days from the Commencement Date.

Particular Conditions - 1

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Section 1.2.4 ALTERATION

In accordance with the fourth paragraph of Section 2.4.1 of the TOR-006 the Design Engineer included in his Technical Proposal an evaluation of ground treatment methods leading to a recommendation to use Ground Improvement by Prefabricated Vertical Drains (PVD). Should it be necessary to change this recommendation for any reason, then Section 1.2.4 of the Agreement will apply.

Section 1.9.5

Additional services as agreed in supplements to this Agreement shall be invoiced on a monthly basis.

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APPENDIX A

SCOPE OF SERVICES, TERMS OF REFERENCE AND WORK SCHEDULE

SCOPE OF SERVICES, TERMS OF REFERENCE AND WORK SCHEDULE

Escope of services and work schedule are as described in the Terms of References for resultancy Services for Design of the Airfield Pavements for the Second Bangkok Pernational Airport (TOR - 006) of April 1994, and the Design Engineer's Technical Proposal and 8th July 1994 and clarification to the scope of services proposed and agreed by the AAT uring negotiation on technical issues as shown in the documents attached and shall be integral and of Appendix A.

further clarified during financial negotiations, the original computer software and manuals quired to be submitted on completion of the design contract under Clause 1.6.5 of the TOR-06 shall be limited to Primavera and Duflow. The AAT does not require other procured items be submitted.

lowever, in case of any discrepancies or for purposes of litigation, the order of recognition of these documents is as follows:

- The technical clarifications during negotiation contained in an undated letter headed "Comments on Financial Proposal for the Design of Airfield Pavements" attached hereto
- 2. TOR-006, April 1994
- The Technical Proposal dated July 8, 1994

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c Chairman of the Selection Committee ond Bangkok International Airport sign of Airfield Pavements Project IA Project Office Floor AAT Head office Jedwattakate Road ngkok 10210

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Comments on Financial Proposal for the Design of Airfield Pavements

the first meeting to discus our financial proposal for the above project we were handed a letter of RWT-AP/94-11-045 dated 23 November 1994 from the General Engineering Consultant to the AT, enclosing Items requiring clarification in the technical proposal for the design of the irfield pavements submitted by DMJM, and ANALYSIS OF FINANCIAL PROPOSAL DMJM and asked to respond to the points raised therein. Our responses, using their referencing, are as follows:

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Pavement Design

1. The Consultant will prepare a detailed monitoring manual giving guidelines for short-term and long-term maintenance. The manual will describe appropriate monitoring procedures and using visual condition surveys and non-destructive deflection surveys. The Consultant will advise on appropriate instrumentation for installation within the pavements and foundations to monitor temperature, moisture, displacements, stresses and strains during loading etc., as well as Weigh-in-Motion equipment for monitoring the actual aircraft loads applied to the pavement.

Surveys

- 1. In preparing the technical and financial proposals it has been assumed that:
 - the future canals, ponds and dikes of the polder system will be supplied to the Consultant in the form of a MOSS model
 - all the areas under the (future) pavements will have been surveyed and input into a
 MOSS model by the Site Preparation Consultant, and that this data will be supplied
 to the Consultant
 - the intended earthworks under the Site Preparation Contract(s), i.e. lateral extent and levels of filling, will be made available to the Consultant such that the MOSS model can be updated. It is further assumed that these earthworks will be in hand during the Airfield pavements Design Contract and therefore the field position will be continually changing

- the site condition at the end of the Site Preparation Contract (or each relevant section thereof) will be surveyed as part of the measurement process and that this data will be made available to the Consultant
- one of the very first steps of the construction works under the Airfield Pavements construction contracts will be an agreed survey of existing levels

Since site conditions will be changing rapidly it is nor considered to be justifiable to spend further large sums of money on survey. The limited amount of data outside the "areas under the (future) pavements" is noted. The Consultant has therefore allowed for carrying out survey of any areas required by this contract which are not covered by the Site Preparation contract, and for carrying out such additional surveys and checks as the Project Team may require. It is estimated that the provision of about 6 team-months will be adequate for this purpose. The only circumstances under which the Consultant would seek further payment for survey costs would be if the MOSS data provided by the Site Preparation Consultant was inaccurate of inadequate.

2. The lump sum for surveys, of which a breakdown has now been supplied, allows for 20 CPT tests and 5 piczocone (PCPT) tests.

As explained we have visited the site with the CPT/PCPT contractor and are satisfied that further CPT testing, up to the quantity of about 125 tests, while necessary, cannot be economically justified at present. We consider that the savings to the AAT by waiting until site access has been provided by the Site Preparation works are sufficiently advanced, are more than justified. This takes account of the fact that the results of the Full Scale Field Trails, and of the full quantity of CPT tests if carried out, would not be available within the 60 days allowed for submitting the Preliminary Design.

Two options are available:

- include a provisional sum in the Airfield Pavements Design contract for carrying out these tests as the filling work proceeds, as suggested by GEC, or
- including the tests in the first part of the airfield pavement construction contracts

As explained the Consultant believes that it is normal practice, not only internationally but already established in Thailand on the SRT and Department of Highways project, to specify a single drain spacing and surcharge requirement for an extensive part of the works at tender stage, and to consider minor revisions to detail after further information becomes available. This meant after trial embankments for the SRT and after further soil investigation for the Doll.

Surface Water Drainage System

1. It is confirmed that our scope of services includes close cooperation with the design engineer of the landside road system, in such a way that the drainage system for the landside will be incorporated in our analysis of the total drainage system for the SBIA, in accordance with Clause 2.5.1 of the TOR.

We assume, however, that the necessary input data from the landside design is provided early enough to be incorporated in our analysis, and that the landside design engineer remains responsible for the drainage design within the landside area. We would also like to clarify that in case our analysis should indicate that the design of the polder system is not adequate, any amendment to this design should be carried out by the polder design engineer, and such amendment has not been included in our work plan.

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Surface Movement Guidance and Control System (SMGCS)

A SMGCS plan is required for Aircraft Operations when the RVR is below 1200. Routes must be defined, but there is no requirement that there be a single path of lights leading the aircraft from the runway to the gate below 600 RVR. The airfield lighting systems must be circuited so that a single path of lights is provided from the runway to the non-movement area from that point to the gate, it is the responsibility of the sponsor to submit plans indicating how they plan to accomplish this task. Follow me vehicles, or in pavement lights are most practical.

The following are major design element of the SMGCS System:

- Airfield lighting circuiting

- Regulator and selector switch design

- Computer control of regulators via touch screen capability for tower control

- Software control of regulators

This system is expensive and adds to the substantial Construction Cost & Maintenance Costs.

Coordination with other Designers

1. The Design Engineer confirms that it shall provide extensive coordination with the design of the fuel hydrant system as part of its scope of service. It is very important that the hydrant system be precisely located within the overall scheme of the final apron layout plan issued by the Consultant Aircraft parking/docking points must be clearly defined so that fuel hydrants can be properly placed. Furthermore coordination will be required in the provision of related facilities, that is oil water separators and drainage infrastructure as well as the location of other utility lines within the apron area.

Manpower Planning

1. The Visual Aid Team consists of personnel with the technical expertise and background in Airfield Visual Aid Design.

The team was assembled with the intent to provide the specific visual aid expertise with additional strengths such as power distribution, controls, and management capabilities necessary to design a total Airfield Lighting Package.

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The Consultant has assembled a Visual Aids Team that it considers to be well qualified to implement the required scope of service. The Lead Visual Aids Engineer, Mr. Chatteyee has extensive experience in the design of Visual Aids and electrical systems for airports. These include civil and military airports in the United States, the Middle East, and in Asia. The DMJM Team feels that he is highly qualified to fulfill the technical requirements for this component of the project.

The Senior Electrical Engineer I has also had extensive airport design experience; this include airfield lighting and power distribution. The proposed candidate for the Senior Electrical Engineer II position is similarly experienced in the design of airfield lighting and communications. It is noted that while the Senior Structural and Mechanical Engineer, and Building/Landscape Architect candidates have limited airport experience, their positions do not require specific airport expertise, as they will be designing structural components and supports for and within the airfield buildings; and fire protection for the airfield building; and architectural finishing standards interior space planning, and landscaping for the airfield buildings.

DMJM has extensive worldwide experience in the design of airport Visual Aids and related system. Therefore, the Company has more than sufficient technical and personnel resources to support and backstop the activities of its Visual Aids Team in the full and successful implementation of the scope of services to be rendered.

Analysis of Financial Proposal DMJM

- 1. It was stated that no answer was required.
- 2. As above.
- 3. It is note that "an increase in the design period for Ground Improvement is therefore not acceptable". However, as already explained, it is regretted that it is in fact impossible to meet the requirements of the TOR in full, since the results of the Full Scale Field trials and of the full quantity of CPT/PCPT tests could not be made available sufficiently early in the Preliminary Design Period which ends 60 days after NTP. It could be possible to delay the whole design period, as suggested by the "delay in supporting activities". However this is considered to be both disadvantageous to the AAT and unnecessary. The proposed alternative is believed to give the AAT the best solution to the current difficulty, allowing as much design to proceed as possible, and enough to produce tender documents of sufficient accuracy to accord with normal practice for this type of work. The Technical and Financial Proposals have been prepared on this basis. Should this arrangement prove to be unacceptable to the AAT alternatives can be discussed, but would require reconsideration of the proposed manpower planning in order to meet an alternative schedule.
- 4. The scope of work for the surveys has been clarified in the breakdown of direct costs and the answers to earlier queries.

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- The Consultant has included a proviso in its Financial Proposal regarding fluctuation in foreign exchange rates. Although it is noted that the Baht/Dollar exchange rate has remained quite stable over the past ten years, there is some concern that a change of five percent on grater could seriously impact the financial availability of the project from the Consultants side, given that a substantial portion of its expenditures will be in a dollar. It should also be noted that a Baht exchange rate fluctuation in the other direction could also provide a windfall profit to the Consultant. Thus, an exchange rate fluctuation safeguard would be beneficial to both parties.
- b) The Consultant notes that no advance payment for mobilization was provided for in the Terms of Reference. Coupled with the proposed payment schedule by the AAT, the DMIM Team finds that its project payments will lag for behind its actual project expenditure throughout most of the project. During certain project, this difference will exceed forty percent of the total contract value. The Consultant therefor, requests, that a more equitable payment schedule (that is, on a monthly pasis) be adopted.
- The sample contract contained in the Terms of Reference has a liability clause which has unlimited liability on the part of the Design Engineer for the services to be provided. The Consultant is specifically concerned that there is no provision for excluding consequential damages, that there is no financial limit on the liability, and that the time period for which the Design Engineer is liable is excessive.

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