KINGDOM OF THAILAND MINISTRY OF TRANSPORT AND COMMUNICATIONS NEW BANGKOK INTERNATIONAL AIRPORT COMPANY LIMITED

AGREEMENT

FOR

THE CONSTRUCTION SUPERVISION CONSTILIANT SERVICES

FOR

AIRFIELD PAVEMENTS

FOR

SECOND BANGKOK INTERNATIONAL AIRIORT PROJECT (SUVARNABHUMI AIRPCRT)

BETWEEN

NEWBANGKOKINTERNATIONAL AIRPORT COLLID.

AND

SCOTE WILSIN KIRKPATRICK (TRAILAND) LTD.
SPAN CO., LTD.
AMAN CONSULTANTS CO., LTD.
SOUTHEAST ASIA TECHNOLOGY CO., LTD.
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23 MAY 2003

Page 1

AGREEMENT FOR ENGAGEMENT OF CONSULTANT

Agreement No. NBIA (P.P.) 33/2546

This Agreement is made on this 23rd day of May B.E.2546 (A.D.2003) at the New Bangkok International Airport Co.Ltd., 99 Bangna - Trad Hwy (Km.15), Rachathewa, Bang Phli, Samut Prakan 10540, Thailand between

New Bangkok International Airport Co., Ltd. (NBIA) incorporated under the laws of Kingdom of Thailand with its registered business office at 99 Bangna - Trad Hwy (Km.15), Rachathewa, Bang Phli, Samut Prakan 10540, Thailand represented by General Somchai Somprasong, Vice Chairman of the Board of Directors, Acting President, who is the Authorized Representative; hereinafter called "the Employer" of the one part and

Scott Wilson Kirkpatrick (Thailand) Ltd. (Scott Wilson) incorporated under the laws of Kingdom of Thailand with its registered business office at 18th Floor, Pacific Place Building, 140 Sukhumvit Road, Khlong Toei, Bangkok 10110, Thailand represented by Mr. Ronald Ross Thomson, Director,

Span Co., Ltd. (Span) incorporated under the laws of Kingdom of Thailand with its registered business office at 275/5-7 Soi Ramkhamhaeng 21, Ramkhamhaeng Road, Bangkok 10310, Thailand represented by Wangthonglang, Vangsirirungruang, Director, who is the Authorized Representative,

MAA Consultants Co., Ltd. (MAA) incorporated under the laws of Kingdom of Thailand with its registered business office at 221/1 Soi Prachachuen 37, Prachachuen Road, Bang Sue, Bangkok 10800, Thailand represented by Mr. Wichien Wilaingam, Managing Director, who is the Authorized Representative,

Southeast Asia Technology Co., Ltd. (SEATEC) incorporated under the laws of Kingdom of Thailand with its registered business office at 281 Soi Phanit Anan, Sukhumvit 71 Road, Khlongton Nua, Vadhana, Bangkok 10110, Thailand represented by Mr. Krai Soongswang, Executive Vice President, who is the Authorized Representative, and

Norconsult International AS (Norconsult) incorporated under the laws of Norway with its registered business office at Vestfjordgaten 4, 1338 Sandvika, 0219 Bærum, Norway represented by Mr. Knut Hjalmar Hellsberg Nielsen, who is the Authorized Representative:

or jointly called "APC Consortium"; hereinafter called "the Consultant" of the other part.

The five (5) companies collectively referred to above as the Consultant undertake to jointly perform and be jointly and severally liable to the Employer for the performance of the Service pursuant to the terms and conditions hereof.

WHEREAS the Employer is desirous that consulting services be rendered for the following project: Norconsult

Span Company Limited แร้เข้า สแปน จำกัด

THE CONSTRUCTION SUPERVISION CONSULTANT SERVICES

for

AIRFIELD PAVEMENTS

for

SECOND BANGKOK INTERNATIONAL AIRPORT PROJECT (SUVARNABHUMI AIRPORT).

It is hereby agreed and declared by and between the parties hereto as follows:

The Employer hereby employs the Consultant and the Consultant accepts the employment on the terms and conditions as laid down in the Conditions of Agreement and Appendices annexed hereto and made a part hereof.

Appendix A: Scope of Services (including the Terms of Reference and additional services proposed by the Consultant and accepted by the Employer)

Appendix B: Working Programme (Consultant's Work Schedule)

Appendix C: Consultant's Personnel and Manning Schedule

Appendix D: Remuneration and Method of Payment

Appendix E: Form of Advance Payment Guarantee

Appendix F: Form of Retention Guarantee

Appendix G: Documentary Authorities - Power of Attorney (if any) and the Document Evidencing the Registration of Company as Juristic Person

In case of inconsistency between the Conditions of Agreement and the Appendices, the former shall prevail.

This Agreement is executed in two (2) identical counterparts, one for the Employer, and the other for the Consultant.

This document comprises the entire agreement between the Employer and the Consultant 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 विकारमें। निर्माणमारिका अविकास presence of witnesses.



By General. (Somehai Somprasong)

Vice Chairman of the Board of Direct

Acting President

Authorized Representa Span Company Limit



NEW EUNCHOR INTERNATIONAL ARRORT CO. LTD. บริษัท ก่าอากาสชายสากลกรงเกษแห่งใหม่ จำกัด 🚲







HE CONSULTANT

(Mr. Ronald Ross Thomson)

Director

WISON KIRKPATRICK (THIN)

tripatriok (Thailand) Ltd.

Norconsult





Span Company Limited แร้เข้า สแปน จำกัด

(Mr. Krisada Vangsirirungruang)

Director

Authorized Representative Span Co., Ltd.



(Mr. Wichien Wilaingam) Managing Director Authorized Representative MAA Consultants Co., Ltd.



(Mr. Krai Soongswardg) **Executive Vice President** Authorized Representative Southeast Asia Technology Co., Ltd.

Norconsult & By.



hut/Hjalmar Hellsberg Nielsen) Authorized Representative Norconsult International AS

(Mr. Somchai Sawaseleepon)

Witness..

(Mr. Kamolpong Choomanee)

Witness....

(Mr. Sampan Dejpol)



(Mr. Narit Namchantra)



NEW BANGKOK INTERNATIONAL AIRPORT COLLTE. บริบัต ท่างาถาดขามสากลกรุงเกพแห่งใหม่ จำเริด

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LETTER OF AWARD





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บริษัท ท่าอากาศยานสากลกรุงเทพแห่งใหม่ จำกัด new bangkok international airport co., Ltd.

No. NBIA (P.P.) 1911 /2546

2/ May, 2003

Scott Wilson Kirkpatrick (SWK) – lead company Span Company Ltd. MAA Consultants Ltd. South East Asian Technology Co.,Ltd. Norconsult International AS

Attention

Mr. Ronald R. Thomson Authorized Representative

Dear Sir,

Subject:

Second Bangkok International Airport Project (Suvarnabhumi Airport)
The Construction Supervision Consultant Services for Airfield Pavements
Agreement No. NBIA (P.P.) 33/2546

LETTER OF AWARD

- 1. We, New Bangkok International Airport Co., Ltd. (hereinafter referred to as "NBIA"), refer to the Tender for the Construction Supervision Consultant Services for Airfield Pavements submitted by you, a Consortium comprising Scott Wilson Kirkpatrick (Thailand) Ltd., Span Company Limited, MAA Consultants Co., Ltd., Southeast Asia Technology Co., Ltd., and Norconsult International AS, collectively known as "Airfield Pavements Consortium" (hereinafter referred to as "APC"), in the proposal dated 14 March 2003, in which you offered:
 - (i) to execute the Scope of Services specified in the Terms of Reference (attached as Appendix A to the Agreement) in connection with the above referred Package; and
 - (ii) to complete the Scope of Services within Twenty-Eight months (28 months) from the Commencement Date of 26 May 2003,

for the sum of Thai Baht Two Hundred and Fifty-Five Million only (Thai Baht 255,000,000.00) excluding VAT being the "Revised Price" offered in your letter reference PPR/235/L1774 dated 28 April, 2003 (hereinafter referred to as the "Contract Price").

We, NBIA, hereby accept this offer on the following basis:

Your offer is on the basis that you shall undertake to jointly perform and learntly and severally be responsible and remain fully liable under the agreement in all respects a execution of the Scope of Services in accordance with the Agreement

Span Company Limited / / บริษัทสมเน่น จำกัด

NEW HANCAGE INTERNATIONAL ARRIVATION LITE.

เอที่ 99 หมู่ 10 ถนนบุงนา คราค อาบุลราชาเทวะ อำเภอบางห**ปักษาการใช้ (662)** 723-0000 โทรสาร (662) 723-0010-1 99 Mu 10 Bangna-Trad Hwy, 1.m. 15, Rachathewa, Bangphli, Samut Prakan 10540 THAILAND Tel. (662) 723-0000 Fax. (662) 723-0010-1

www.bangkokairport.org www.suvarnabhumiairport.com E-mail: nbia@bangkokairport.org



- (ii) You are hereby instructed to submit, within seven (7) days of the signing of the Agreement, evidence of the insurance and payment of premium for the professional indemnity insurance, (Thai Baht 300,000,000), required under Clause 17 of the Conditions of Agreement
- (iii) After signing the Agreement, you shall completely follow the Engineering Act B.E. 2542 (A.D. 1999) and the Architect Act B.E. 2543 (A.D. 2000).
- As regards the execution of the Agreement, NBIA requests you to attend the NBIA 3. offices on Friday 23 May 2003 at 9.00am to execute the Agreement. In the event that you fail to comply with this requirement, NBIA may, without prejudice to any rights and remedies it might have, at any time thereafter, cancel the Agreement by giving written notice to you and NBIA shall not be required to perform any of NBIA obligations under the Agreement.

Yours faithfully, New Bangkok International Airport Co., Ltd.

Sompton (Somchai Somprasong) General Vice Chairman of NBIA Board of Directors Acting President

For and on behalf of Airfield Pavements Consortium

Received and accepted:

(Mr. Ronald R. Thomson) Authorized Representative

Dated: 22. May 2003

Mr. K. Sasahara, Project Manager, PMC CC:









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CONDITIONS OF AGREEMENT



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บริษัท ท่าวากาดยายสากสกรุงกพาห่งใหม่ จำกัด

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SOUTHEAST ASIA TECHNOLOGY COMPANY LINITED

1. INTERPRETATION

A. In this Agreement, (as hereinafter defined) the following words and expressions shall have the meanings herein assigned to them, except where the context requires otherwise:

"Agreement"

means the conditions comprising the conditions of the Employer/Consultant Agreement, together with Appendices A through G, Letter of Acceptance (if any) and Formal Agreement, or otherwise specified in the Employer/ Consultant Agreement.

"Conditions of Contract"

means the Conditions of Contract for the Works to be executed for the achievement of the Project.

"Consultant"

means the party named in the Agreement and who is employed as an independent professional firm, by the Employer, to perform Services and includes its legal representatives, successors-in-title to such party and permitted assignees.

"Consultant's Representative"

means the person named by the Consultant as such in Appendix C as the "Project Manager" or in his absence the person named by the Consultant as such in Appendix C as the "Deputy Project Manager" or any replacement therefore approved in accordance with this Agreement.

means the party named in the Agreement who employs the Consultant, legal successors to the Employer and permitted assignees.

means the person or appointed as such by the Employer from time to time, pursuant to Clause

Span Company Limited Norconsult means the remuneration for the

Employer"

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performance the Services specified in Appendix D.



"Foreign Currency"

"Key Persons"

means Japanese Yen.

means the persons identified as such in Appendix C to be used by the Consultant in connection with the performance of the Services, as provided for in Clause 4 and includes, for the avoidance of doubt, the Consultant's Representative.

"Local Currency"

"Month"

means Thai Baht.

means a period of one month according to the Gregorian calendar commencing with any day of the month.

"Normal Document Review"

means any services or work ancillary variation. alteration, change, amendment, enhancement to or finalization of documents to prepared or considered by the Consultant (whether or not following an instruction or comment from the Employer) where the Services to be performed by the Consultant shall be the same or within the same nature and character to those in respect of which the parties have agreed the Fee.

means any notice provided for in this Agreement, such notice to be effected in accordance with Clause 30.

means consultants appointed or to be appointed by the Employer to carry out services outside the scope of the Services in respect of or in connection with the Project.

means the Employer and Consultant and "third party" means any person or entity as the context requires.

means those detailed in Appendix D.

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Page 4 of 36

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"Notice"

"Other Consultants"

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Span Company Limited บริษัท สแบ่น รัฐกัด

Payment Schedules"

"Working Programme

"Project"

"Project Team"

"Proprietary Material"

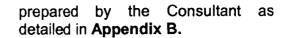
"Related Works"

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means the Second Bangkok i **Airport Project** International (Suvarnabhumi Airport) at Nong Ngu Hao, for which the Works are to be provided.

means collectively the Employer's staff and those Consultants and Other Consultants from time to time engaged by the Employer connection with the Works and notified in writing to the Consultant as being included within the Project Team.

means all specifications, reports, Working Programmes and all other documents which have been or are written, originated or made by the Consultant in the course performing the Services together with all software and other licences which have been paid for by the Employer, but excluding Proprietary software, software development, copyrights and intellectual property already acquired by the Consultant prior to the performance of the Services under this Agreement and which may be used in the course of performing the Services.

means works, other than the Works, designed, performed or undertaken by the Employer or other contractors or suppliers of Employer at, on, over or adjacent to the Site in connection with or related to the Project and which may be connected to, associated encillary to or otherwise related or relevant to the Works.

means the professional services to be provided and performed by the Consultant in accordance with Agreement.

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"Sites"

means the sites for carrying out the Works, and "site" means any of them.

"Terms of Reference"

means the Terms of Reference set forth in Appendix A.

"Works"

means the works in connection with which the Employer has engaged the Consultant to perform and execute the Services.

"Works Agreement"

means collectively each contract to be entered into by the Employer with any Contractor for the execution of the Works.

- B. Words importing the singular only also include the plural and vice versa where the context requires.
- C. The index and clause headings in this Agreement shall not be deemed to be part thereof nor be taken into consideration in the interpretation or construction of the Agreement.
- D. References herein to clauses and schedules are to clauses and schedules in this Agreement unless expressly stated to the contrary.
- E. References herein to persons shall include bodies corporate, unincorporated associations and partnerships.
- F. If there is conflict between provisions of the Agreement, the last to be written chronologically shall prevail.









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APPOINTMENT 2.

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- Α. The appointment of the Consultant shall commence from the date of this Agreement or from the time when the Consultant shall have begun to perform for the Employer any of the Services, whichever is the earlier and save as may otherwise be agreed by the parties, until the issue of the last certificate of completion to be issued under this Agreement or the last of the Services shall be completed and delivered by the Consultant to the Employer whichever is later.
- B. The Consultant shall commence the Services on 26 May 2003 and shall proceed with the Services so that it shall complete the Services in accordance with the Working (Appendix B), as the same may be extended or adjusted in accordance with this Agreement.
- C. If for any reason the Consultant fails to progress at the rate prescribed in the Working Programme and in the opinion of the Employer too slow to ensure completion of the Services, the Employer may so notify the Consultant in writing. Consultant shall thereupon take such steps as are necessary, subject to the consent of the Employer, or, in the event of failure to do so, the Employer may instruct in writing to expedite progress so as to achieve completion of the Services.
- D. The Consultant shall complete the Services within a period of twenty-eight [28] calendar months from and including the date of 26 May 2003 as specified in Clause 2B above.

3. **CONSULTANT'S DUTIES AND RESPONSIBILITIES**

- A. Upon appointment, the Consultant shall carry out such duties specified in the Conditions of Contract for the Works and subject to Clause 3B exercise the authority specified in or necessarily to be implied from the Conditions of Contract for the Works.
- В. Subject to Clause 3A above, the Employer shall retain the specific duties and authority in respect of the following particular items:
 - 1. Consent in Assignment and Subletting.
 - 2. Extension of Time for Completion.
 - 3. Reduction of Liquidated Damages for delay.

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- Any Variation that would cause an increase in the original Contract Price.
 - 5. Payments to the Contractor.

Alterations and/or additional Works, which are subject to new rates or to be priced in accordance with the rates contained in the Contract.

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- 7. Suspension or Termination of the Contract.
- 8. Alterations or Modifications to the Contract.
- 9. Taking-Over Certificate.
- 10. Defects Liability Certificate.

and the Consultant shall have no authority to issue any instruction, certificate or written consent regarding matters referred to in items 1 to 10 above without the prior written approval of the Employer.

C. Notwithstanding Clause 3B above, the Employer reserves the right to delegate such further duties and authority to the Consultant to deal with the matters addressed in Clause 3B above.

4. THE SERVICES

- A. The parties agree that a principal objective of the Agreement is the economic and timely completion of the Works, in accordance with the Conditions of Contract, and the Project. As an experienced Consultant upon whose skill and expertise the Employer is relying, the Consultant hereby covenants that:
 - 1. The Consultant shall provide and perform the Services in accordance with the Working Programme (Appendix B).
 - 2. All documents and information released by the Consultant shall be in accordance with the provisions of this Agreement.
- B. The Consultant shall perform the Services fully and faithfully in accordance with this Agreement and shall comply with any and all instructions and directions issued by the Employer to the Consultant on any matter connected with this Agreement. In so performing the Services the Consultant shall at all times act in the best interests of the Employer.

The Consultant warrants to the Employer that;

 It has exercised and will continue to exercise in the performance of the Services, the degree of skill, care and diligence as may be expected of a properly qualified diligent and competent consultant fully experienced in the provision of like services for works of a similar size, scope complexity and monetary value to the Project;

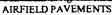
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- 2. It has performed and will continue to perform the Services in accordance with good principles and accepted state of the art professional standards, codes of practice and regulations which are in force at the date of this Agreement or are reasonably foreseeable by an experienced consultant of like discipline to be likely to come into force during the performance of the Services.
- 3. It has performed and will continue to perform its obligations promptly and in a proper and efficient manner and in accordance with this Agreement and with all applicable laws of the Kingdom of Thailand from time to time in force.
- D. Where the Services include the exercise of powers or performance of duties authorized under Clause 3 or required by the terms of the Conditions of Contract for the Works, the Consultant shall:
 - 1. act in accordance with the Conditions of Contract.
 - 2. if authorized to certify, decide or exercise discretion, do so fairly between the Employer and third party not as an arbitrator but as an independent professional acts by his skill and judgement.
 - 3. if so authorized vary the obligations of any third party, subject to obtaining the prior approval of the Employer to any variation which can have an effect on costs or quality or time (except in any emergency when the Consultant shall inform the Employer as soon as practicable).

5. ASSIGNMENT AND SUB-LETTING

The Consultant shall not assign, transfer or sub-let any right or obligation or the performance of any of the Services under this Agreement to any person without the prior written approval of the Employer and, in particular, but without limitation, the Consultant shall not engage any member of the Project Team or any company or individual affiliated with any member of the Project Team in relation to the performance of any of the Services nor shall the Consultant engage, second or otherwise employ any employee or other representative of any member of the Project Team or of any company or individual affiliated with any member of the Project Team in relation to the performance of the Services. The Employer shall make no additional remuneration to the Consultant's Fee, in respect of any such approved transfer or sub-letting.

The Consultant shall ensure that each sub-consultant is kept Span Company Limited wave of relevant instructions and/or directions given to the

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Page 9 of 36

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Consultant by the Employer and shall be fully responsible to the Employer for the performance of any of the Services undertaken by a sub-consultant and for the observance of the obligations incumbent upon him under this Agreement by each sub-consultant. The approval by the Employer to the assignment of any part of this Agreement or to engagement by the Consultant of independent consultants or sub-consultants to perform any part of the Services shall not relieve the Consultant of any of the Consultant's obligations under this Agreement.

C. The Employer may assign (whether in whole or in part), or novate the Agreement at any time to any third party and the Consultant irrevocably consents to such assignment or novation and undertakes to execute within a reasonable time following written demand by any such third party, all documents necessary to effect such assignment or novation.

6. ENTIRE AGREEMENT

- A. Notwithstanding anything to the contrary expressed or to be implied from the Agreement, each party acknowledges that it has had or, as the case may be, is deemed to have had, full opportunity to include in the Agreement any representation or warranty (if any) made to it by the other party leading up to the Agreement. It is hereby agreed that the Agreement embodies the entire understanding between the parties and there are no representations, promises, terms, conditions, warranties or obligations relied upon by either party, whether oral or written, other than those contained herein.
- B. All amendments or modifications of this Agreement shall be made by written supplementary agreement executed in the same formalities as this Agreement.

7. EMPLOYER'S PROPERTY



Anything supplied by or paid for by the Employer for the use of the Consultant shall be the property of the Employer and where applicable shall be so marked. When the Services are completed or terminated the Consultant shall furnish inventories to the Employer of what has not been consumed in the performance of the Services and shall deliver it as directed by the Employer.

8. OBLIGATIONS OF THE EMPLOYER

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The Employer shall so as not to delay the Services and within a reasonable time give to the Consultant all information in the Employer's power to obtain and without charge provide all

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SOUTHEAST ASIA TECHNOLOGY COMPANY LIMITED

relevant data and information in its possession or in the possession of its Other Consultants, which is reasonably required by the Consultant for the purpose of performing the Services. Any data, report, map, photograph, plan, drawing, record or information given or forwarded by the Employer to the Consultant shall not relieve the Consultant of his obligations under this Agreement. The Employer gives no warranty in any manner whatsoever for the data, report, map, photograph, plan, drawing, record or other information either as to the accuracy or sufficiency or as to how the same should be interpreted save that at the time the above was given the Employer believes the same to be accurate and sufficient, nevertheless the Consultant, when he makes use of and interprets the same, shall do so entirely at his own risk and it shall not constitute a breach of obligation on the part of the Employer hereunder if such data, report, map, photograph, plan, drawing, record or information is not accurate or sufficient for the purpose of performing the Consultant's obligations under this Agreement. In the event any data, report, map, photograph, plan, drawing, record or information given by the Employer is not accurate or sufficient which thereby causes any delay in the provision by the Consultant of the Services, the Consultant shall be entitled to an extension of time accordingly if in the opinion of the Employer the insufficiency and inaccuracy was a direct cause of the delay.

- В. On all matters properly referred to the Employer in writing by the Consultant the Employer shall give his decision in writing so as not to delay the Services and within a reasonable time.
 - The Employer may at any time during the performance of the Services by the Consultant, nominate in writing to the Consultant a person as Employer's Representative who shall be authorised to act on behalf of the Employer for any or all purposes in connection with this Agreement. The Employer may replace the Employer's Representative by notice in writing to the Consultant. Employer's Representative may delegate responsibility to other representatives in carrying out the Works. Such additional or alternative persons shall act with full authority of the Employer unless and until the Employer notifies the Consultant in writing of any change.

Subject to Clause 8F the Consultant shall accept instructions concerning the Works and the Services only from the Employer and the Employer's Representative provided that the Consultant shall use all best endeavours to ensure that no such instruction an Company Limited the Employer or the Employer's Representative is acted upon to the extent that such an instruction appears to conflict or be in any way inconsistent with any prior instruction, or is inconsistent with the duties and authorities pertaining to Clause 3, prior to within of such apparent conflict and the Consultant shall



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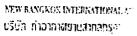
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bring such conflict or inconsistency to the attention of the Employer before acting thereon.

- E. Employer's Employer or Instructions aiven bv the Representative shall be in writing and shall be accepted by the Consultant. Confirmation in writing of any oral instructions given by the Employer's Representative shall be deemed to be an instruction within the meaning of this Clause. Notwithstanding Clause 8D, compliance with any such instruction shall exclude the Consultant from any responsibility and/or liability arising out of any consequence, which might arise and shall not constitute a breach of obligation on the part of the Consultant.
- F. No payment by the Employer shall be deemed to indicate satisfactory performance of the Services nor shall any expression or implication of satisfaction or acceptance nor any confirmation, consent, approval or notice by the Employer or the Employer's Representative restrict, debar, exclude or waive any claims or actions whatsoever by the Employer for any breach of any obligation under this Agreement by the Consultant nor relieve the Consultant from his responsibilities under this Agreement.
- G. The Employer hereby undertakes with the Consultant to do all in the Employer's power to:
 - 1. assist the Consultant and it's personnel in registering or obtaining permits to practice the profession necessary to perform the Services under this Agreement according to the law of the Kingdom of Thailand.
 - 2. assist the Consultant's personnel and their dependents, where applicable, to obtain any necessary visas, residence and work permits, exchange permits, tax clearance certificates and necessary documents required for their stay in and departure from Thailand.
 - 3. provide assistance to facilitate clearance through customs of any equipment, materials and supplies required for the Services.
 - provide unobstructed access, wherever it is required for the Services.
 - provide access to other organizations for collection of information which is to be obtained by the Consultant.

issue to officials, agents and representatives of other organizations all such instructions as may be necessary



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effective prompt and appropriate for the implementation of the Services.

9. **CONSULTANTS PERSONNEL**

- A. The Consultant shall forthwith appoint the person named in Appendix C to be the Consultant's Representative of and to direct and control the overall performance by the Consultant of the Services; subject to Clause 9D such person shall have full authority to act on behalf of the Consultant for all purposes in connection with this Agreement; the Consultant's Representative shall be employed full time and exclusively in connection with the Services unless otherwise approved in writing by the Employer.
- B. The Consultant shall, subject to Clause 9D ensure that the Key Persons listed in Appendix C in connection with the performance of their respective Services shall be approved in writing by the Employer and shall be employed full time and exclusively in connection with the Services for the duration of their work schedule as detailed in the Working Programme as per Appendix B unless otherwise approved in writing by the Employer.
- C. The Consultant shall not replace or remove any of the persons referred to in Clauses 9A and 9B without the Employer's prior written approval, which shall not be unreasonably withheld. If any of the persons so referred to gives notice of resignation from his employment with the Consultant, the Consultant shall forthwith so inform the Employer in writing and shall submit details to the Employer of the proposed replacement for approval, within one (1) month from the date of receipt of such notice.

The Consultant may remove and change his personnel for suitability in the performance of the Services and for the benefit of the Employer or of the Services under this Agreement, only with the prior written approval of the Employer.

The Consultant warrants that the persons referred to in Clauses 9A and 9B shall be fully skilled and experienced having regard to the tasks which they are required to perform. The Employer shall have the right to request the removal of any person if, in the Employer's sole opinion, his performance or conduct is or has been unsatisfactory and the Consultant shall promptly an Company Limited move the person so specified; the Consultant shall be responsible for the cost of replacing such person with a person

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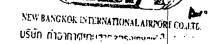


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- F. For foreign professional personnel other than those listed in Appendix C, the Consultant shall submit to the Employer for approval, biographical data, including education and experience, relating to each employee proposed, no later than thirty (30) Days prior to that employee's departure for Thailand to perform his work.
- For local professional personnel other than those listed in G. Appendix C, the Consultant shall submit to the Employer for approval, biographical data, including education and experience, relating to each employee proposed, no later than fifteen (15) Days prior to that employee commencing work.
- H. The Employer shall examine the biographical data, including education and experience, within the period of fifteen (15) Days from the day on which the Employer has received details. The Employer may approve or reject the individual concerned, or may request for additional details from the Consultant. If the Employer does not give any objection or request for additional data within the period mentioned above (i.e. 15 Days), it will be considered that the individual is approved.
- 1. Expenses covering salary, traveling expenses and all other expenses of any nominee not listed in **Appendix C**, 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 Employer and is rejected afterwards by the Employer as described in Clause 9F, 9G and 9H shall be borne by the Consultant.
- J. Those personnel whose records of education and experience are mentioned in **Appendix C** are hereby considered approved.

If, in the opinion of the Employer, the Consultant is not performing the Services according to the terms and conditions of this Agreement due to the staff allocated to the performance of the Services being incompetent, and as a result of which the performance of the services is not at an acceptable level, the Consultant shall, within fourteen (14) Days of receipt of notice in writing from the Employer, propose replacement staff for the Employer's approval.

If, in the opinion of either the Employer, or Consultant, the Consultant has difficulties in performing the Services satisfactorily due to an insufficient number of Consultant's staff Company Limited located to the performance of the Services, then by mutual agreement between the Employer and Consultant an additional number of personnel (i.e., manpower/man-months) may be added to improve the performance.

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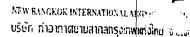
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- M. Should the Consultant fail to comply with its obligations under Clause 9K, the Employer shall have the right, following consultation with the Consultant, but at the Employer's sole discretion, to:-
 - 1. Employ such further staff to assist the Employer in the performance of the Services as the Employer deems appropriate. Any additional cost of such staff, over and above the cost had such staff been engaged by the Consultant, to be deducted from the Fee as such cost is incurred; or
 - 2. Omit part(s) of the Services from this Agreement, as the Employer deems appropriate, in which event the Fee shall be reduced in proportion and as in accordance with the schedule of payment (Appendix D).
 - 3. Terminate the Consultant's appointment in accordance with the provisions of Clause 19.
- N. The Consultant shall afford to any such staff employed by the Employer pursuant to Clause 9M all assistance as may be necessary for them to carry out the tasks, which the Consultant ought to have carried out.
- O. The Consultant shall endeavour to employ, as many Thai citizens in so far as may be consistent with the Consultant's obligations under this Agreement.

Neither the Consultant, any his personnel, any subsidiary nor associate shall have any direct or indirect interest in any of the construction, service or supply contracts for the Project without first divulging his interest to the Employer and obtaining the written consent of the Employer, failing which the Employer reserves the right to terminate the Agreement in accordance with Clause 19A.

Willi Clause 13A.

No personnel of the Consultant assigned to the Services shall engage, directly or indirectly, either in his name or through the Consultant in any other business or professional activities deemed by the Employer to be conflicting with the performance of the Services without first obtaining the written consent of the Employer, failing which the Employer reserves the right to terminate the Agreement in accordance with Clause 19A.

Company Limited the Employer shall remunerate any individual experts employed to participate in the Services.

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These experts may not be removed or replaced except by the person by

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NEW BANGKOK INTERNATIONAL MICHAEL ON LTI. USEIN MIDDININGUIDANNANS DRIVES A. several responsibility for the due performance of this obligation herein and for the satisfactory completion of the Services.

10. SERVICES REVIEW

- A. The Consultant shall provide the Employer with assistance including arranging for the Employer to have access, to key personnel, plans, drawings, data files, calculations, Working Programmes, printouts, details and the like from time to time, to enable the Employer to carry out a full and systematic review of any part of the Services. Provided always that any such assistance requested by the Employer does not disrupt the performance of the Services by the Consultant. The Consultant shall ensure in any agreement with any sub-consultant that such sub-consultant will be obliged to afford like assistance to the Employer and any Other Consultant employed by the Employer.
- B. For the avoidance of doubt all assistance provided by the Consultant in accordance with Clause 10A shall not be an alteration to the Services and the Consultant shall not be entitled to any additional payment for compliance therewith.

11. ALTERATIONS TO THE SERVICES

- A. The Employer may instruct, by written notification any addition, modification, omission, alteration or change of duration to the Services. Subject to Clause 11C the value of all such alterations shall be taken into account in ascertaining the Fee.
 - The Consultant shall notify the Employer within twenty one (21) Days after receipt of any instruction or order given under Clause 11A in respect of which the Consultant considers an adjustment should be made to the Fee and thereafter furnish all details reasonably requested by the Employer to assist the Employer in determining the sum, if any, which in his opinion should be adjusted to the Fee as a result of such instruction or order. The Employer shall respond to such notification within twenty one (21) Days of receipt from the Consultant.
- C. No addition to the Fee under this Clause 11 shall be made in respect of an instruction or order issued by the Employer to modify or revise the Services where the modification or revision required by the Employer:
 - 1. Arose through any act or omission of the Consultant in carrying out the Services: or

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Where such instruction is in respect of a modification or revision arising during the normal evolution of acceptable documentation as Normal Document Review.



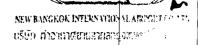
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D. If the Employer issues any instruction or order pursuant to Clause 11A, the Consultant shall forthwith implement the same notwithstanding any disagreement between the Consultant and the Employer as to any sum as may be subsequently agreed upon by the Employer and the Consultant pursuant to Clause 11B and, save as expressly excluded, the provisions of the Agreement shall apply to all Services the subject of the instruction or order.

12. REVIEW OF WORKING SCHEDULE

A. In order to optimize the performance of the Services and remunerate the Consultant accordingly, the Employer shall review the progress of the Services and the future-working schedule every six (6) months and agree upon the staff assignment schedule for the next six (6) months period. The payment schedule set out in **Appendix D** shall be adjusted based on the agreed staff assignment schedule, provided that the Fee shall remain unchanged, unless changes are effected according to the Agreement.

13. PROGRAMMING AND REPORTING

The Working Programme identified in **Appendix B** shows the intended sequence and timing for the performance of the Services. Changes to the Working Programme shall only be made with the written approval of the Employer. The Working Programme or any revised Working Programme so approved by the Employer may not relieve the Consultant of any duty or responsibility under this Agreement.

B. The Consultant shall submit, when required by the Terms of Reference (Appendix A) and when otherwise requested by the Employer, reports on the progress of the Services, which comply with the Employer's procedures and contain the details specified in Appendix A.

14. LIAISON, CO-ORDINATION AND RELATED WORKS

A. The Consultant's Representative shall, when required by the Terms of Reference (Appendix A) and when otherwise requested by the Employer, attend at all meetings necessary in connection with the Project and shall advise and assist the Employer on all matters relating to the Services to:

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Consult all agencies having an expressed or likely interest in the Works including but not limited to all relevant departments and agencies of the Government;





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- 2. Liaise closely as required for the proper execution of the Services with the Project Team and Other Consultants, all departments of the Government, their consultants and others involved in the Project and such other bodies as the Employer may require from time to time.
- B. The Consultant shall consider all comments made by and/or information obtained from such parties and the effect that they may or will have on the performance of the Services, and convey the same to the Employer for consideration and approval. The Consultant shall incorporate any such comments and information, which the Employer has considered and approved.
- C. The Consultant acknowledges that the Employer will have Related Works designed and constructed by others concurrently with the Works on the Site and that it is of paramount importance that the performance of the Services are properly coordinated with the Related Works in view of their concurrent and sequential nature.
- D. Accordingly the Consultant shall in the performance of the Services and in accordance with the requirements and directions of the Employer take all reasonable steps to ensure that the performance of the Services is co-ordinated with the Related Works. The Consultant shall take account of the work or comments of the Project Team and Other Consultants in respect of the Related Works and the Consultant shall monitor the interfacing of the Services with respect to the Project Team and/or Other Consultants of the Related Works.

The Consultant will not be responsible to the Employer for the detailed design, inspection and performance of any work entrusted to the Project Team or Other Consultants by the Employer or for any work carried out thereby, save that if any such work is to be integrated into the Works, the Consultant shall be responsible, inter alia, for:

- 1. Monitoring that such work does not adversely affect or interfere with the integrity or function of the Works; and
- 2. Monitoring of such work in the Working Programme.

The Consultant will give timely and proper advance notice to the Employer of any information and assistance as may reasonably be required by the Consultant from the Employer for the purpose of performing his obligations hereunder and the Employer will an Company Limiteuse reasonable endeavours to provide such information assistance.

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G. The parties hereto may from time to time agree to detailed procedures for the performance of the Consultant's obligations in this Agreement.

15. DOCUMENTS SUBMISSION

- A. When the Consultant is required to provide reports or other documents as part of the Services, all such reports and other documents shall be submitted to the Employer for approval at the times and in the manner stipulated in the Terms of Reference (Appendix A). Approval to such documents and reports shall be given in writing by the Employer within the times specified in Appendix A or if none is specified, within seven (7) Days of such submission.
- B. If the Employer does not approve the Consultant's reports or other documents, the Employer shall, within the time specified in the approvals procedure in **Appendix A** or, if no time is specified, within seven (7) Days after receipt, request the Consultant in writing to make modifications or additions thereto. The Consultant acknowledges and accepts that modifications and additions necessary in the normal evolution of acceptable documentation will be necessary. Such modifications and additions shall be deemed Normal Document Review during the Services and are deemed to be included in the Fee. The Consultant shall resubmit the amended reports or other documents for the Employer's approval. Such approval not to be unreasonably withheld.
 - Approval given by the Employer will not relieve the Consultant of his responsibilities under the Agreement, should it be found at any time after such approval that the said documents or reports do not comply with this Agreement, or that the details contained therein are not compatible with documents or reports previously submitted and approved by the Employer. Providing such work is within the scope of Services, the Consultant shall at his own expense make such modifications or additions as are necessary to remedy such non-compliance or non-agreement and shall resubmit all such amended documents or reports for approval by the Employer within fourteen (14) Days of such being discovered.

16. RECORDS

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The Consultant shall retain all pertinent records in complete and proper form including all records relating to the cost of pan Company Limited erformance of the Services until the discharge of his duties under the Agreement and shall make all such records available at all times for inspection by the Employer. The records shall be

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delivered free of charge to the Employer within three (3) months following completion of this Agreement. To the extent that any calculations, drawings, documents or other records of the Consultant are to be created and/or maintained on a computer or other electronic storage device, the Consultant shall comply with the procedure notified to it by the Employer for backup and for copies of such calculations, drawings, documents and other records to be stored at a place designated and maintained by the Employer other than his project office.

B. The Consultant shall maintain up-to-date records which clearly identify time and expense. Except where the Agreement provides for lump sum payments, not later than twelve (12) Months after the completion or termination of the Services, the Employer can at notice of not less than seven (7) Days require that a reputable firm of accountants nominated by the Employer audit any amount claimed by the Consultant by attending during normal working hours at the office where the records are maintained.

INSURANCE AND INDEMNITY 17.

A. Without in anyway limiting his duties, obligations and liabilities under this Agreement or otherwise at law, the Consultant shall take out and maintain for the duration of the Services under this Agreement plus (2) two years following completion of the whole of the Services professional indemnity insurance with a maximum limit of indemnity of Thai Baht Three Hundred Million (Baht 300,000,000), to protect and safeguard the Consultant against any and all claims and costs that may occur as a result of the Consultant's performance of the Services.

The insurance referred to in Clause 17A shall provide cover without unusual or onerous provisions and shall be with a wellestablished insurance office or underwriter of repute with a branch office of business in Thailand. The Consultant shall submit to the Employer documentary evidence of the insurance and payment of premium, from the Consultant's insurance brokers, that the obligations under Clause 17A and 17B have been complied with to the satisfaction of the Employer.

If the Consultant shall fail to comply with Clause 17A or, as the case may be Clause 17B the Employer may consider such failure a breach of the Agreement in accordance with Clause 17E.

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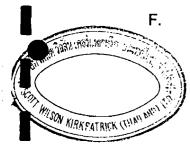
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Employer so request, the Consultant shall take out and maintain such alternative insurance as may be available upon reasonable commercial terms and shall take such other measures as the Employer shall reasonably request in order to protect the parties' interests.

- E. The Consultant shall indemnify and save harmless the Employer against and from all costs, claims, damages, expenses, demands, causes of action and proceedings of whatsoever nature to the extent of the coverage stipulated in Clause 17A arising from or contributed to by:-
 - 1. Any negligent breach, act or omission by the Consultant, his servants or agents in the provision of the Services or any sub-consultants, his servants or agents, which results in any liability of the Consultant under any Works Agreement or to any third party; and
 - Any claim, damage, loss or expense due to or resulting from any negligence or negligent breach of statutory duty on the part of the Consultant, his servants or agents or any sub-consultants his servants or agents

Provided that the obligation of the Consultant to indemnify the Employer against any such costs, claims, damages, expenses, demands, causes of action and proceedings shall be reduced to the extent that the same shall be caused or contributed by any act, neglect, omission or default of the Employer, his servants or agents, contractors, subcontractors or other consultants.



The Consultant shall indemnify and hold harmless the Employer against all damages and expenses arising out of any claims or proceedings that may be instituted by any third party alleging an infringement of such third party's rights by the introduction of such third party's patents or copyrights or any other rights into the Services or by the use or application by the Employer of any part of the Services performed by the Consultant.

Unless otherwise provided by this Agreement, the Consultant shall, at it's own cost, take out and maintain insurance against third party liability and against loss or damage to equipment and materials provided by the Employer or purchased with funds provided under the reimbursable items by the Employer, for the sole use of the Consultant in the performance of the Services.

Notwithstanding the requirements of Clause 17A above, the can Company Limit fourred by the Employer, in excess of the amount stipulated in Clause 17A through the due process of the law in accordance with the laws of the Kingdom of Thailand.

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18. SUSPENSION OF SERVICES

- A. The Employer may at any time by giving reasonable notice in writing to the Consultant require the Consultant to forthwith suspend performance of all or any part of the Services under this Agreement.
- B. If the Employer shall not have required the Consultant to resume performance of the Services so suspended within a period of ninety (90) Days from the date of a Notice under Clause 18A then upon the expiration of the said ninety (90) Days period either party may terminate the Consultant's engagement by giving to the other written Notice to that effect, such termination having effect from the date of such Notice. Upon receipt of the notice of termination, the Consultant shall take immediate steps to bring the Services to a close and to reduce expenditures to a minimum.
- C. In any case in which the Employer has required the Consultant to suspend all or any part of the Services under Clause 18A the Employer may, at any time within a period of ninety (90) Days from the date of such Notice, require the Consultant by Notice in writing to resume the performance of such Services. The Employer shall pay the Consultant the amount of such expenses necessary for maintenance of his personnel as shall be agreed upon by the Parties.

19. TERMINATION

A. Without prejudice to the Employer's other rights and remedies, the Employer may forthwith terminate this Agreement on written Notice if the Consultant abandons the Services or is in fundamental material breach of this Agreement. Such termination shall take effect immediately upon receipt, by the Consultant, of such Notice.

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In the event of the Consultant committing any breach of this Agreement other than of a nature referred to in Clause 19A the Employer shall having given reasonable written notice to the Consultant specifying such breach and requiring its immediate remedy. In the event that such breach continues unattended for a period of thirty (30) Days from the date of the Employer's said written Notice, the Employer may by further written Notice forthwith terminate the Consultant's engagement under this Agreement.

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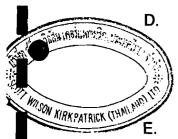
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- 1. Shall become the subject of a petition seeking the appointment of a provisional liquidator or liquidator or enter into liquidation whether compulsory or voluntary (except in the case of a voluntary winding-up solely for the purposes of and followed by reconstruction or amalgamation and where, if the Employer so requires, the successor of the Consultant (as the case may be) enters into an agreement with the Employer agreeing to be bound by the terms of this Agreement and to perform the Services), or
- 2. Shall suffer appointment of a receiver the administrative receiver over any of its property or otherwise have possession taken by or on behalf of the holders of any security secured by a mortgage or charge of any property comprised in or subject to such mortgage or charge; or
- 3. Makes or agrees to any compromise arrangement or moratorium with its creditors as a whole or with any class of its creditors or whether it be contractual or informal without any legal sanction or enforceability and whether or not the same envisages or provides for a nominee or supervisor (or other person by whatever name called) to manage or control its functions or undertakings;

then the Employer may by written Notice terminate the Consultant's engagement, such termination taking immediate effect from the date of the Notice.



Without prejudice to the provisions of Clauses 19A, 19B and 19C and notwithstanding any other provision in this Agreement, the Employer may at any time by giving thirty (30) Days Notice in writing to the Consultant terminate all or any part of the Consultant's engagement without assigning any reason.

The Consultant shall immediately notify the Ernployer of any proposals for any voluntary arrangements or of any petition or proposals for the appointment of any administrator, liquidator, receiver or administrative receiver.

In the event that Employer fails to make payment of any amount properly due to the Consultant under this Agreement within sixty (60) days of the due date then the Consultant may give written Notice to the Employer of such breach requiring the Employer to Span Company Limited the event that the Employer fails so to remedy the breach then the Consultant may by a further written notice terminate its

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20. CONSEQUENCES OF TERMINATION OR SUSPENSION

- A. Upon suspension of the Services under Clause 18 or upon any termination of the Consultant's engagement under Clause 19 the Consultant shall take immediate steps to bring to an end the Services in an orderly manner but with all reasonable speed and economy and shall discontinue making commitments in so far as is practicable and shall subject to payment of all sums payable by the Employer to the Consultant and shall cause to be delivered to the Employer, within sixty (60) days documentation and computer data in its possession relating to the Services (whether in the course of preparation or completed).
- B. If the Services are suspended under Clause 18 otherwise than by reason of some default of the Consultant or upon any termination of the Consultant's engagement under Clause 19D or upon termination by the Consultant of its employment under Clause 19F the Employer shall pay to the Consultant any further payment in respect of the Fee in accordance with Clause 25 which may be due up to the date of termination or suspension and all other costs reasonably and properly incurred, less all payments on account made by the Employer in respect of the Fee.
- C. In the case of a suspension of the whole or part of the Services as provided for in Clause 20B the Employer in addition shall pay:
 - 1. Such costs which are reasonably and properly incurred as the Employer may have agreed during the period of any suspension: and
 - 2. In the case of a partial suspension only, such further installments of the Fee as they fall due (for the avoidance of doubt, ascertained with respect only to those Services not suspended):

If the Consultant's engagement is suspended under Clause 18 by reason of some default of the Consultant or terminated under Clauses 19A, 19B, 19C or 19D, the Employer may employ and pay other persons to carry out and complete the Services as may be necessary for the proper carrying out and completion of the Project.

If the Consultant's engagement is so suspended or terminated as provided for in Clause 20D then until after completion of the Services by other persons under Clause 20D the Employer shall an Company Limit earlies to make any further payment to the Consultant for Services so suspended or terminated except for any Services rendered to the Employer prior to the Employer's declaration of



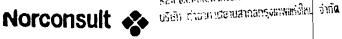
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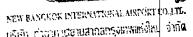
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the Consultant's default or event under Clauses 19A, 19B or 19C. The Employer shall have the right to utilise any and all monies of the Consultant's Fee in the Payment Schedule remaining, after payment to the Consultant for any Services rendered to the Employer prior to the Employer's declaration of the Consultant's default or event under Clauses 19A, 19B or 19C, to pay for said completion of the suspended or terminated Services.

- F. In the event that the Employer instructs the Consultant to resume the Services after suspension in whole or in part as provided for in clause 20E then the Consultant shall not be entitled to any payments by way of Fee or otherwise in respect of the period of suspension save in respect of any Services not so suspended nor to any costs of demobilising or remobilising such Services whatsoever.
- G. Termination of the Consultant's engagement shall be without prejudice to the rights and remedies of either party in relation to any negligence, omission or default of the other prior to such termination.
- H. Upon termination or suspension of the Consultant's engagement howsoever arising, the Employer shall not be liable to the Consultant for any loss of profit, loss of contracts or other losses and/or expenses arising out of or in connection with such termination save as expressly provided herein.
- I. Without prejudice to the laws of Kingdom of Thailand on the limitation of proceedings the provisions of this Agreement shall continue to bind each party insofar as and for as long as may be necessary to give effect to their respective rights and obligations.

21. STATUTORY OBLIGATIONS AND OTHER OBLIGATIONS

The Consultant shall comply with the provisions of any law with which it may be required to comply including any Ordinance, Decree or any regulation or bye law of any local or other duly constituted authority or any subsidiary legislation under any such Ordinance, Decree or regulation or any direction, order, requirement or instruction whatsoever given by any authority competent to do so under any law in relation to the Works.

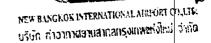
The Consultant shall comply with all relevant policies and span Company Limit consultant at all times in the execution of its obligations and duties under this Agreement.



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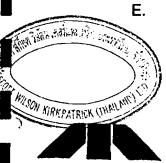
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22. COPYRIGHT AND CONFIDENTIALITY

- A. The Consultant as beneficial owner assigns to the Employer, in accordance with provisions of the relevant laws of the Kingdom of Thailand and with effect from the date of this Agreement, the entire copyright, intellectual property and other proprietary rights in the Proprietary Material, which have been or are hereafter written, originated or made by the Consultant in the course of performing the Services. Upon such assignment, the Proprietary Material shall become the property of the Employer for the purposes of the Project and for any future alteration and/or extension thereto.
- B. To the extent and intent of this Agreement and notwithstanding any contradictory provisions contained within the relevant laws of the Kingdom of Thailand and for the purposes of the Project, the Consultant hereby consents to the Employer unhindered permission to modify, howsoever, the Proprietary Material and it's contents. Such modification, carried out by the Employer, shall not entitle the Consultant to any additional compensation in any form. The Employer shall be entitled to modify the Proprietary Material as and when necessary to permit proper performance of the Employer in discharging it's obligations and duties under the Project.
- C. Notwithstanding the assignment effected by Clause 22A the Consultant, shall be entitled under a royalty-free non-exclusive licence to use the Proprietary Material to such extent and for as long as may be necessary for the proper performance of the Services; such licence shall not carry the right to grant sub licences nor shall it be otherwise transferable to third parties.
- D. Save as provided under Clause 22C and save in respect of matters of detail the Consultant shall not reproduce or permit to be reproduced any of the Proprietary Material without the Employer's prior written consent. The Employer shall not use the Proprietary Material save in respect of any development of the Project and for any future alteration and/or extension thereto.



The Consultant shall not, without the prior written approval of the Employer (the approval not to be unduly withheld), take or knowingly permit to be taken any photographs of the Project for use in any publicity or advertising or publish alone or in conjunction with any other person, any articles, photographs or other illustrations relating to the whole or any part of the Project nor shall it impart to any publication, journal or newspaper or any radio or television programme any information regarding the Project.

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F. Save as may be reasonably necessary in the proper performance of its duties, the Consultant shall not, during its engagement or at any time after its expiration or termination for any reason disclose to any person or otherwise make use of any confidential information (including, but without limitation, the Employer's requirements and any legal agreements, prepared by or on behalf of the Employer) of which it has or may in the course of its engagement become possessed of relating to the Employer, the Project Team or Other Consultants, the Project or otherwise, nor shall it disclose to any person anything contained in this Agreement, without the prior written authority of the Employer; the restriction shall continue to apply, without limitation in point of time, unless and until such information comes properly into the public domain through no fault of the Consultant.

23. SUFFICIENCY OF FEE

A. The Consultant shall be deemed to have satisfied himself as to the correctness and sufficiency of the Fee and of the rates and prices stated in **Appendix D**, which rates and prices shall, except insofar as it is otherwise provided in the Agreement, cover all the Consultant's risks, liabilities and obligations set out or implied by the Agreement and all matters and things necessary for the proper performance of the Services according to the true intent and meaning of the documents comprising the Agreement taken together whether the same may or may not be particularly shown or described provided the same can be reasonably inferred therefrom or is necessarily incidental thereto.

24. BONDS AND GUARANTEES

A.

Within fourteen (14) Days of the commencement of the Services, the Consultant shall provide to the Employer duly issued Advance Payment Bond(s) in Thai Baht in amounts equivalent to the Advance Payment as stipulated in Clause 26 and in the form appearing in Appendix E hereto with only such amendments thereto as may previously have been agreed in writing by the Employer. The Consultant shall maintain and renew if necessary the said bond so that it shall remain in full force and effect for the amount specified in Clause 26, until the expiry of twenty-eight (28) Days from the date upon which the full amount of the Advance Payment shall have been repaid after which no claim shall be made against the said bonds. The cost of obtaining the bonds shall be at the expense of the Consultant and shall be included in the Fee.



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- B. The Advance Payment Bonds to be submitted by the Consultant pursuant to Clause 24A shall be issued by a bank as a surety, details of which shall have been submitted in writing to the Employer prior to acceptance of the Tender and against which the Employer shall have raised no objection. If the Consultant shall wish to change the identity of the bank as a surety, it shall give full written details of the proposed replacement to the Employer and the Employer may within fourteen (14) Days, at its absolute discretion and without giving any reason, object in writing to the proposed replacement whereupon the Consultant may either revert to the original bank or other surety or propose a further replacement in the same manner as set out above. If the Employer shall not raise any objection in writing within fourteen (14) Days then the bank or other surety shall be deemed to be acceptable to the Employer.
- C. Notwithstanding any other provision of the Agreement the provision by the Consultant of the Advance Payment Bond, in accordance with this Clause 24 shall be a condition precedent to the Consultant's entitlement to receipt of any advance monies under Clause 26, or any further payment of such monies, as the case may be, by the Employer to the Consultant, under the Agreement.

25. REMUNERATION OF THE CONSULTANT

In consideration of the Consultant providing and performing the Services, the Employer shall pay to the Consultant the Fee properly incurred by the Consultant in providing the Services in accordance with the terms and conditions stated in the Payment Schedule (Appendix D) which Fee shall comprise the Consultant's total entitlement to payment for the Services, its obligations and responsibilities hereunder and for all fees, direct costs, charges/expenses, reimbursables and overheads of every kind incurred by him in respect of this Agreement.

B. Monthly payments of the Fee shall be calculated in accordance with the Payment Schedule set out in **Appendix D**. The Fee and all payments to be made to the Consultant in respect thereof of this Agreement shall be in Thai Baht.

The Employer will pay payments in Thai Baht directly to the Consultant.

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Throughout the performance of this Agreement, the Consultant shall submit to the Employer applications for monthly payments

Span Company Limited a form approved by the Employer. Such applications shall be supported by such documentation as may reason.

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Page 28 of 36

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required for the purpose of verifying that the amounts shown are properly due and payable to the Consultant. Each such separate monthly statement shall distinguish the remuneration and direct cost reimbursables from the total eligible costs. Where applicable, the applications shall state:

- 1. The amount of the Fee due in accordance with this Clause 25 up to the date stated in the application;
- 2. The total of amounts previously paid hereunder by the Employer;
- 3. The balance due to the Consultant after giving credit for item 25E (2)
- F. Subject to Clause 25E, the Employer shall, within fifteen (15) Days of receipt of the Consultant's application in accordance with Clause 25E, value, certify and issue an interim payment certificate and within thirty (30) days after the issuance of certificate pay to the Consultant:
 - 1. The amount of the Fee due as certified by reference to **Appendix D**,
 - 2. Any other amounts due to the Consultant under this Agreement; less any amounts recoverable from the Consultant in accordance with this Agreement. However, if any item or part of an item of any application in respect of the Fee is disputed or subject to question by the Employer, valuation, certification and payment by the Employer of that part of the application which is not contested shall not be withheld on those grounds.

The Employer shall, notwithstanding any provision to the contrary included in this Agreement, be entitled to deduct from and set off against any amount due to the Consultant under this Agreement any sums expressed to be due and payable by the Consultant to satisfy any obligations or liabilities of the Consultant to the Employer under this Agreement.

Nothing in this Agreement shall limit or restrict in any way the rights of deduction or set off which the Employer may have under this Agreement or otherwise at law.

26. ADVANCE PAYMENT

The Employer agrees to make an advance payment to the Consultant for ten (10) percent of the Fee. The Consultant pan Company Limited Norconsult

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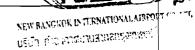
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Page 29 of 36



agrees to the following conditions concerning the use and repayment of the advance money:

- 1. Towards the repayment of the advance money, the Employer will deduct from each interim payment made to the Consultant, ten (10) percent of the amount of the relevant interim certificate, until the full amount of the advance money has been repaid. In any event, the outstanding advance money shall be deducted in full from the final payment to the Consultant. Should the outstanding advance money exceed the amount of the final payment, the Consultant shall pay such excess within seven (7) Days after having received a written request from the Employer to do so.
- 2. Any money payable by the Consultant to the Employer, as debts or under any obligation arising out of the Agreement, shall be deducted from interim payments due to the Consultant before any deductions are made towards the repayment of the advance money.
- 3. If on termination of the Agreement, the outstanding amount of advance money exceeds the amount then due to the Consultant after all other deductions have been made, the Consultant shall pay such excess to the Employer within seven (7) days after being requested in writing to do so by the Employer.

27. RETENTION

B.

A. From each lump sum installment specified in **Appendix D**, the Employer shall retain five (5) percent of each interim payment to be accumulated and paid to the Consultant within forty-five (45) days after the payment of the last installment.

However, the Consultant may request for payment of the amount retained, by submitting to the Employer a bank guarantee in the sum equal to the amount of retention money retained. The said bank guarantee must be issued by a bank in Thailand in the form attached (Appendix F) and shall be valid until the Consultant's liability under this Agreement has been fulfilled. The Employer shall return the bank guarantee(s) to the Consultant within forty-five (45) days after the payment of the last installment, upon request of the Consultant.

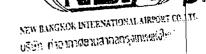


pan Company Limit Save insofar as it is legally or physically impossible, the



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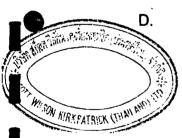
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the Agreement to the complete satisfaction of the Employer and for that purpose and to such satisfaction shall complete the Services, to the extent specified in or necessarily to be implied from the Agreement.

B. The Consultant shall comply with and adhere strictly to the Employer's instructions and directions on any matter whether mentioned in the Agreement or not, touching or concerning the Services. The Consultant shall take instructions only from the Employer or, subject to the provisions of Clause 8C, from any delegate or assistant of the Employer.

29. SUPPLEMENTARY AND/OR EXTENDED SERVICES

- A. 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, additional remuneration including reimbursable costs (if any), shall be paid by the Employer, which shall be computed on the same basis as specified in **Appendix D**.
- B. Should the actual period of the Services, for any reason, exceed the time specified under this Agreement, the Consultant shall continue to perform the Services until the Services are completed and the effective period of this Agreement shall be extended accordingly.
- C. If the extension of the period is due to any negligent act, error or omission on the part of the Consultant or his employees, then as provided under Clause 17, the Consultant shall bear the total cost of the additional services required.



If the extension of the period is due to reason(s) that are not the fault of the Consultant, then the Employer shall remunerate the Consultant in accordance with the reasonable man-months to complete the Services, and pay all costs associated as required to complete the Services as approved by the Employer at the same rate (s) as set forth in **Appendix D** for the actual period required to complete the Services.

30. NOTICES

A. Any Notice to be given shall be in writing and shall either be delivered personally or sent by first class recorded delivery prepaid post; the addresses for services of the Employer and of the Consultant shall be those stated below or such other address in Kingdom of Thailand for service as the party to be served may have previously notified in writing.

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Employer's Address;

President The New Bangkok International Airport Co., Ltd. 99 Bangna - Trad Hwy (Km.15), Rachathewa, Bang Phli, Samut Prakan 10540, Thailand

Consultant's Address:

Mr. John Fairclough **Project Manager** Scott Wilson Kirkpatrick (Thailand) Ltd. 18th Floor, One Pacific Place, 140 Sukhumvit Road, Bangkok 10110 Thailand

- B. Any notice shall be deemed to have been served as follows:-
 - 1. If personally delivered at the time and date of delivery; or
 - 2. If posted, at the expiration of 48 hours after the envelope containing the same was delivered into the custody of the postal authorities;
- C. Documents may be served by facsimile provided that a hard copy is subsequently served on the recipient in accordance with Clause 30A.

31. **GOVERNING LAW**

This Agreement is governed by, and shall be construed in accordance with, the laws of the Kingdom of Thailand.

SETTLEMENT OF DISPUTES 32.



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.

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 can Company Limit energy one to be appointed by the party as aforesaid and company Limit energy of the other one to be appointed by the other party within thirty (30)

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to agree on such dispute or difference, the two arbitrators shall appoint an umpire within thirty (30) Days from the date of The umpire so appointed shall resolve this disagreement. 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 arbitration proceedings shall follow the Rules 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 court in Thailand, having jurisdiction over the disputes, for the appointment of arbitrator or umpire as the case may be.

- C. Each party shall bear the cost of his own arbitrator's service and share equally other costs 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 appointed, whether the whole cost of umpire's service and other costs 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.
- D. 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.
- E. 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 court, having jurisdiction over the disputes in Thailand, to enforce any decision or award rendered in arbitration proceedings.

33. FORCE MAJEURE



"Force majeure" denotes any event, the happening of which or pernicious results of such 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. The term "force majeure" as employed herein shall mean Acts of God, strikes, lock outs or other industrial disturbances, wars and insurrections (whether declared or not), riots, epidemics, can company Limite and slides, earthquakes, storms, lightning, civil disturbances, explanations and any other similar events not within the control of the due diligence.

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Page 33 of 36



neither party is able to overcome. Furthermore, both parties hereby agree that the termination of the Contract for Construction, due to force majeure as defined therein, shall constitute force majeure under this Agreement.

- C. 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.
- D. 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.
- E. During the time of temporary cessation of the Services to force majeure of any length, the Consultant, unless otherwise directed by the Employer in writing, shall minimize his cost and the Employer shall continue to pay the Consultant only for the costs necessary for maintenance of the personnel as shall be agreed upon by the parties. Such payment shall cover costs for a period not exceeding sixty (60) Days of such temporary cessation.



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 Clause 33C, or immediately if the performance of the Services becomes impossible due to force majeure, 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 of such termination.

34. GENERAL PROVISIONS

A. This Agreement shall be written and interpreted in the English Language and all drawings, documents, communications, notices, instructions and correspondence between the Employer and the Consultant, concerning the Agreement, shall be in English.

Throughout the duration of this Agreement, no personnel assigned to the Services shall engage, directly or indirectly, can Company Limit either in their own names or through the Consultant in any other business or professional activities in Kingdom of Thailand, which usun allu and shall conflict with the Project.

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- C. Nothing contained herein shall be construed as establishing or creating between the Employer and the Consultant the relationship of master and servant or principal and agent, it being understood that the position of the Consultant and of anyone else performing the Services is that of an independent Consultant.
- D. The Consultant 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 Consultant 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 Consultant shall be subject to the deduction of income taxes of the aforesaid persons and to all necessities as provided by law.
- E. Subject to the laws, ordinances and regulations enforced in the Kingdom of Thailand, all payments made to the Consultant on account of foreign exchange costs shall be available for repatriation by the Consultant.
- F. 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 D**, the rate of exchange applicable shall be the selling rate as published by the Krung Thai Bank on the date the payment is made.
- G. The Consultant's staff will be entitled to all official Thai holidays as set out by the Employer and annual leave in accordance with the current Labour Laws of Thailand. As such, the Consultant shall have allowed for such Thai holidays and annual leave in the Fee.



Notwithstanding any penalties that may be enforced against the Consultant under the laws of the Kingdom of Thailand, or other jurisdictions, the Employer will be entitled to terminate the Agreement in accordance with the provisions of Clause 19 and the Consultant shall be deemed to have breached Clause 4, if it is shown that the Consultant is guilty of:



Offering, giving, receiving or soliciting anything of value with a view to influencing the behaviour or action of anyone, whether a public official or otherwise, directly or indirectly in the selection process or in the conduct of the Agreement; or



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- 2. Misrepresentation of facts in order to influence a selection process or the execution of a contract to the detriment of the Employer, including the use of collusive practices intended to stifle or reduce the benefits of free and open competition.
- 1. The S.I. Units (System International Units) of weights and measures shall be used.
- J. The Consultant shall maintain it's office and perform it's Services in Thailand in accordance with the Terms of Reference contained in **Appendix A.** The Consultant may, with the approval of the Employer carry out designs, research and special investigations in other countries when they are deemed necessary.

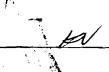


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Conditions of Agreement for CSC for AIRFIELD PAVEMENTS



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APPENDIX A: SCOPE OF SERVICES



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Appendix A Page 1

APPENDIX A **SCOPE OF SERVICES**

The Scope of the Services are as described in the Terms of Reference for Construction Supervision Consultant Services for Airfield Pavements (SAP3-TC-04) of January 2003 submitted under the Employer's letter of Invitation Ref. No. NBIA (PP.)/187 dated January 29, 2003 and the Consultant's Technical Proposals submitted under the Consultant's letter Ref. No.PPR/235/L1748 dated March 14, 2003.

Both documents shall form integral parts of this Appendix A and are attached hereto. In case of any discrepancies between the documents, the Terms of Reference shall govern.



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TERMS OF REFERENCE









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NEW BANGKOK INTERNATIONAL AIRPORT CO., LTD. SECOND BANGKOK INTERNATIONAL AIRPORT PROJECT (SUVARNABHUMI AIRPORT)

TERMS OF REFERENCE FOR **CONSTRUCTION SUPERVISION CONSULTANT SERVICES FOR** AIRFIELD PAVEMENTS (SAP3-TC-04)



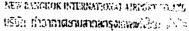
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NEW BANGKOK INTERNATIONAL AIRPORT CO., LTD.

SECOND BANGKOK INTERNATIONAL AIRPORT PROJECT

(SUVARNABHUMI AIRPORT)

TERMS OF REFERENCE

FOR

CONSTRUCTION SUPERVISION CONSULTANT SERVICES

FOR

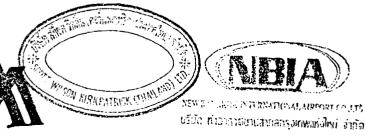
AIRFIELD PAVEMENTS

(SAP3-TC-04)





JANUARY 2003





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-Form of Consultant Services Agreement-separate 66 pages document ------









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CHAPTER 1: INSTRUCTIONS TO TENDERERS

SECTION 1 INTRODUCTION

This Terms of Reference document defines the conditions under which Tenderers submit a price for the Construction Supervision Consultant Services for the Airfield Pavements for the Second Bangkok International Airport Project (Suvamabhumi Airport). All items contained herein are to be strictly adhered to when preparing the Tender.

SECTION 1.1 DEFINITIONS AND ABBREVIATIONS

"NBIA or the "Employer"

New Bangkok International Airport Co., Ltd.

(the Employer).

"SBIA" "Airport" Second Bangkok International Airport Project

(Suvarnabhumi Airport).

"Project"

Development of Second Bangkok International

Airport Project (Suvarnabhumi Airport).

"JBIC"

Japan Bank for International Cooperation

"DC's"

Design Consultants

"GEC"

General Engineering Consultant

"PMC"

Project Management Consultant

"CSC

Construction Supervision Consultant

"CSC Services"

Construction Supervision Con

vices

"TOR"

Terms of Reference Span Company Limited บริษัท สแปน จำกัด

"Works"

Permanent Works and Temporary Works

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SECTION 1.2:

1.2.1 **GENERA** SOUTHEAST ASIA TECHNOLOGY COMPANY LIMITED

NBIA is undertaking the implementation of the SBIA Project. The Project is located at the Nong Ngu Hao site, approximately 30 kilometers south east of Bangkok.

1.2.2 PROFILE OF NEW BANGKOK INTERNATIONAL AIRPORT CO., LTD.

> The SBIA Implementation Plan commenced in 1/992 various studies and developments to build a new internation

> > NEW BANGROK PATERSATIONAL ARROST COLUMN

TOR-CSC-for-AIRFIELD PAVEMENTS

the vicinity of Bangkok to satisfy the increasing demand of international and domestic air passengers and cargo have been carried out.

In the process of such studies and developments, the Airports Authority of Thailand and the Ministry of Finance established the New Bangkok International Airport Co., Ltd. NBIA has been assigned the responsibility implement the SBIA program, undertaking such assigned responsibility and will be the owner of the new airport upon completion.

1.2.3 **OBJECTIVES**

NBIA intends to employ Construction Supervision Consultants to manage certain work packages on the Project. The CSCs will be expected to perform all duties contained in the contract documents, terms of reference documents and any duties deemed necessary for the successful completion of the Project.

1.2.4 PROJECT FINANCING

The construction contract and the construction supervision consultant contract for the Airfield Pavements (hereinafter called "the Works") will be financed through JBIC loans. Such contracts will include special administrative requirements from JBIC.

In the case of a difference of opinion between NBIA and the CSC on any important matters involving professional judgment that might affect the proper evaluation or execution of the project, NBIA shall allow CSC to submit promptly to NBIA a written report and, simultaneously, to submit a copy to JBIC. NBIA shall forward the report to JBIC with its comments in time to allow JBIC to study it and communicate with NBIA before any irreversible steps are taken in the matter. In cases of urgency, CSC shall have the right to request NBIA and/or JBIC that the matter be discussed immediately between NBIA and JBIC.

NBIA is responsible for supervising the CSC's performance and ensuring that CSC carries out the assignment in accordance with the contract. Without assuming the responsibilities of NBIA or CSC, JBIC may monitor the work as necessary in order to satisfy itself that it is being carried out in accordance with appropriate standards and is based on acceptable data. As appropriate, JBIC may take part in discussions between NBIA and CSC. However, JBIC shall not be liable in any way for the implementation of the Project by reason of such monitoring or participation in discussions. N either NBIA nor CSC shall be released from any responsibility for the Project by reason of JBIC's may participation in discussion

Norconsult 1.2.5 PARTICULARS OF SBIA

Airport Location: SOUTHEAST ASIA TECHNOLOGY COMPANY LIMITED

Site, Amphoe Bang Phil, Nong Ngu Changwal Samul Prakarn, Thailand.

The site is located and ut 30 K east of Bangkok. <u>NEW EN</u>NOWING PRECIDENT PROCEASE

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See the Location map in Figure 1.

(b) Total Land Area: Approx. 3,200 hectares (8km x 4km)

(c) Airport Capacity: 30 million per annum of international and

domestic passengers (Phase – 1)

(d) Runways: 2 x 3700 meters (Phase – 1)

(e) Passenger A Passenger Terminal Complex of approx.
Terminal 550,000 m² consisting of the Main Terminal
Complex: Building, Concourse Building and associated

facilities.

(f) Airport Utilities, roadways, information systems, fuel tank farm, airport lighting, etc.

(g) Airport 2005 (Phase – 1) Completion:

1.2.6 CONSTRUCTION QUALITY STANDARDS

Only the highest standard of construction will be acceptable on this prestigious Project. The required high standards dictate that strict quality control, exacting construction methods and procedures as well as stringent health, safety and security procedures will be enforced throughout the construction period. All Construction Supervision Consultants on the Project will be required to implement the approved Quality Assurance Program throughout their service period.

1.2.7 PROJECT IMPLEMENTATION STRUCTURE

The Employer, as the implementation agency of the Project and the owner of the airport upon completion, has appointed DC's to prepare the design and tender documents for the respective elements of the SBIA.

A consultant, GEC was employed during the planning stage of the Project to assist the Employer in various aspects including, but not limited to, reviewing the documents prepared by the DCs. However GEC's assignment has been concluded upon employment of the PMC for the overall management of the Project.

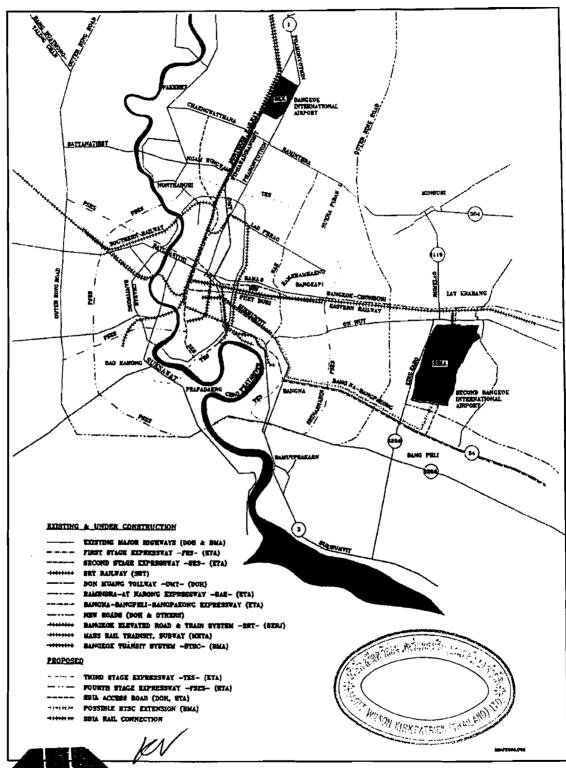
It is the Employer's concept that the PMC assists NBIA in managing the CSC employed by the Employer to supervise the respective construction works.

In this connection, the Employer is seeking a CSC, possessing the required technical and management expertise to successfully supervise the construction of the Works.

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FIGURE 1: SBIA LOCATION PLAN



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SECTION 1.3 OBJECTIVE OF CSC SERVICES

1.3.1 **CONSTRUCTION SUPERVISION CONSULTANT (CSC)**

The CSC is required to perform CSC Services for the Works in accordance with this TOR, the Construction Contract Conditions, the Conditions of Agreement and the Duties of the CSC to ensure that the Airfield Pavements is completed within the time construction of schedule, within budget and to the required quality standards, in accordance with the drawings, the specifications and other contract documents, including any approved amendments thereto. The CSC shall be contractually liable directly to the Employer in accordance with the Conditions of Agreement.

1.3.2 PROJECT MANAGEMENT CONSULTANT (PMC)

The PMC will assist NBIA in managing all aspects of the CSC's implementation of the CSC Services in full compliance with the Conditions of Agreement including the Terms of Reference, the Conditions of Construction Contract, the Conditions of Agreement and the Duties of the CSC.

1.3.3 **DUTIES OF THE CSC**

The CSC shall be responsible for all duties contained in the TOR. Construction Conditions of Contract, Drawings and Specifications in managing the Contract where described as CSC. Employer's Representative or Delegate or Assistant to the Representative. The CSC shall also be responsible for carrying out all necessary tasks that are required for the proper management of a major construction project as foreseen by an experienced CSC. However, for the purpose of this tender, it shall be assumed that, under the Construction Contract, the CSC shall not be delegated authority to approve or instruct any of the following:



Reduction of Liquidated Damages for delayมริษัท สแปน ว่ากัด 3.

4. Any Variation that would cause an increase in the original Norconsult 🕸 Contract Price.

5. Payments to the Contractor.

6. Alterations and/or additional Works, which are subject to new rates or to be priced in accordance with the rates contained in the Contract.

7. Suspension or Termination of the Contract.

- 8. Alterations or Modifications to the Contract.
- 9. Taking-Over Certificate.
 - 10. Defects Liability Certificate.

LINE OF REPORTING TO EMPLOYER

The Employer requires the CSC to report/advise him; required of all necessary actions and recommendations to ensure that <u>บรีบัก ก่าอาก</u>าสยานสากสกรุง

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the CSC Services and the Works are implemented in accordance with the time schedule, budget and quality defined in the respective contracts.

The CSC shall copy to the PMC all correspondence and documents issued to the Employer, except those specifically exempted in writing. The CSC shall also copy to the PMC all correspondence issued to the respective Contractors, except those specifically exempted in writing.

Notwithstanding the arrangement above, the CSC shall be contractually liable directly to the Employer in accordance with the Conditions of Agreement.

1.3.5 DATA AND INFORMATION REQUIRED BY THE EMPLOYER AND **PMC**

The CSC shall prepare all reports, both in printed and electronic format as defined herein and when required by the Employer shall prepare data and information for the implementation of the Employer's overall Project co-ordination.

In addition, to enable the PMC to properly assist the Employers Representative or act as a delegate to the Employers Representative, the CSC shall prepare and submit directly to NBIA, copy to the PMC all Project related documents such as reports, data and information as and when required.

1.3.6 **PROVISION OF CSC SERVICES**

Subject to the provisions of Section 1.3, Instructions to Tenderers, Conditions of Proposals hereof and the Conditions of Agreement. the CSC shall provide all the key and supporting staff, services, materials, equipment and other things and matters necessary to perform the CSC Services in full accordance with the Agreement.

1.3.7 SUMMARY OF THE SCOPE OF CONSTRUCTION SUPERVISION **CONSULTANT SERVICES**

The scope of the CSC Services for the Works are more clearly defined in Chapter 3 hereof and the Duties of the CSC st de, but not be limited to, the following tasks:

Contract Administration,

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Schedule and Cost Control,

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- Reporting,
- Meetings,
- **Document Cor**
- **Public Relation**
- Construction Safett





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- Construction Site Security and
- General Administration.

Anything mentioned in any section of this TOR and not indicated in other sections shall be deemed indicated in all sections. Furthermore, anything not specifically mentioned in the TOR but essential for proper implementation and completion of the CSC Services shall be deemed included in the scope of the CSC Services, unless specifically excluded.

SECTION 1.4 DESCRIPTION OF THE WORKS

1.4.1 SCOPE OF THE CONSTRUCTION WORKS

The CSC under the construction contract shall provide construction supervision services for the Airfield Pavements as follows:

- a) Airfield Pavements and Ground Lighting Systems (Visual Aids) for the SBIA; and
- b) Temporary measures.

1.4.2 DETAILED DESCRIPTION OF THE WORKS.

The scope of works to be performed under the construction contract for Airfield Pavements and supervised by the CSC includes but is not limited to the following:

1) Airfield Pavements.

Two runways (3,700m), exit and parallel taxiways & Cross taxiways.

2) Surface Water Drainage Systems Primary canals. Secondary canals. Box culverts and drainage pipes.

3) Alrside Roads.

Main airside service roads. Airside service roads. Emergency access roads. Security fencing.

4) Visual Aids

Approach lighting systems.
Runway/taxiway center and edge lighting systems.

Pavement markings for airfield pavements

Runway and taxiway signage systems
PAPI

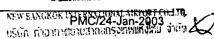
Apron Areas
 Aprons.
 Apron aircraft stand signs.
 Apron floodlights.

6) Airfield Lighting Building. Four airfield lighting buildings. Airfield lighting controls.



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- 7) Landscaping of Airfield Areas.
- 8) Gate Management System (GMS)
- 9) Visual Docking Guidance System (VDGS)
- 10) Temporary measures:

Construction of temporary access roads, drainage systems, contractor's camp and lay down areas, etc.

The Airfield Pavements Contractor will be a nominated "Zone Controller" in accordance with procedure PR/CM/200 (Site Zone Allocation, Interfacing & Access to Work Area) which is enclosed in "Related Documents".

Estimated Prime Quantities:

- 1.5 million cubic meters of cement treated base course.
- 1.4 million tons of asphalt concrete.
- 250,000 cubic meters of pavement quality concrete.
- 7,000 ground lighting fixtures.

See Figure 2: Airfield Pavements, Project Location in SBIA

NB: The Ground Improvement works for the Airfield Pavements are excluded from this CSC contract.

1.4.3 WORKS SCHEDULE AND PERIOD OF CSC SERVICES

The planned construction period for the Airfield Pavements is 26 calendar months beginning most likely on May 2003. It is possible however, that the Construction Contract will be awarded prior to that date to allow the Contractor 'lead- time' to procure, set up and commission plant and equipment.

Sectional completion dates and release of areas for access by other contractors will apply. For the purpose of the Tenderers' proposal, the implementation schedules of the construction works are attached hereto as Appendix T1.

The CSC Services are expected to begin 1 month prior to the start of construction and extend up to 1 month after the completion of the construction works. The estimated overall CSC Service period is therefore 28 calendar months for the construction contract and is scheduled to commence in April 2003.

N.B. Construction supervision services during the construction contract Defects Liability Period are not included in the CSC Services (with the exception of the 1 month period after completion of the Works).



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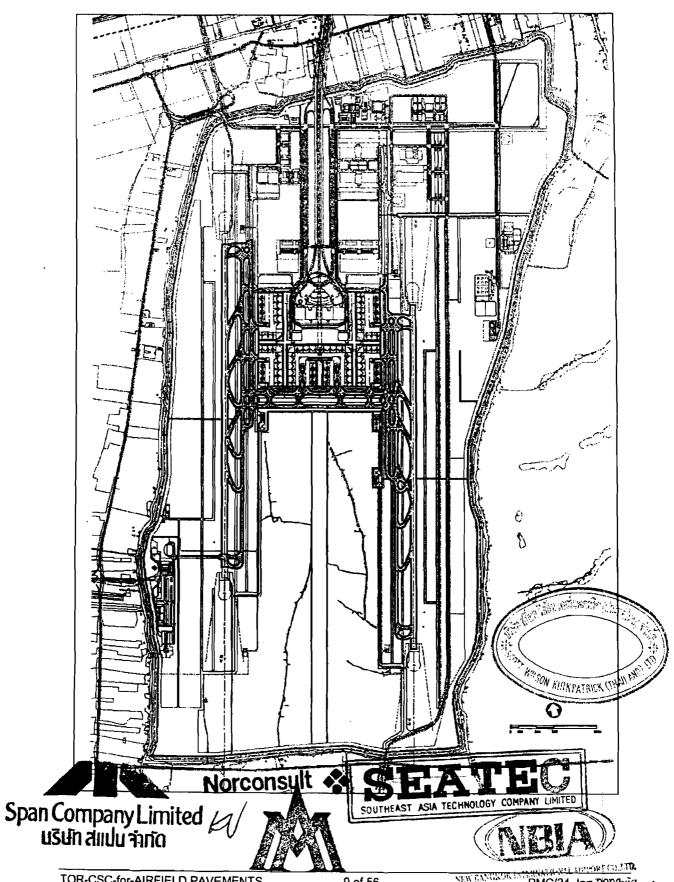
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FIGURE 2: AIRFIELD PAVEMENT SYSTEMS, PROJECT LOCATION IN SBIA.



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SECTION 1.5: INSTRUCTIONS TO TENDERERS AND CONDITIONS OF PROPOSALS

1.5.1 PROPOSAL SUBMISSION PROCEDURES

The proposals shall be clearly labeled:

Proposal for Construction Supervision Consultant Services for:

Airfield Pavements

and submitted, on or before the closing date and time indicated in the Letter of Invitation sent to the Tenderers, to the following address:

The President
New Bangkok International Airport Co., Ltd.
99 Bangna-Trad Hwy (Km. 15)
Rachathewa, Bang Phli
Samut Prakarn 10540
Thailand



The proposals shall consist of the following two (2) volumes:

- Volume 1:Technical Proposal
- Volume 2: Financial Proposal

The volumes shall be submitted in two separate, sealed envelopes: one marked "Technical Proposal", and the other marked "Financial Proposal" along with the name of the Tenderer.

The Technical Proposal shall be submitted in six (6) copies, five of which shall be bound duplicates and one being the unbound original.

The Financial Proposal shall be submitted in four (4) copies, three of which shall be bound duplicates and one being the unbound original.

1.5.2 PROPOSAL PREPARATION PROCEDURES

Any submitted documents, correspondence, or communication in any language other than English shall be accompanied by a translation certified by an appropriate translation authority (Foreign Ministry, Embassy, or the like), otherwise they will not be considered in the evaluation.

Standard Formats are provided with this document. Where stipulated, the Standard Format shall be used. Failure to use the Standard Formats or altering them in any way, shape or on will recide the proposals invalid and subject to disqualification.

The format in the sub-sections listed below shall be used in the presentation of the proposals using dividers clearly tagged as per the hanumeric item numbering below.

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The Tenderers shall ensure that each and every sheet of the proposals is initialed by the authorized representative of the Tenderer or sealstamped by the firm or the lead partner of the Tenderer if the Tenderer is a joint venture or consortium.

Tenderers shall ensure that Volume 1: Technical Proposal does not contain any pricing or cost information. Where necessary, the words "Offered", "Inclusive", "Not Quoted", "Not Offered", "Not Applicable" and "Not Available" shall be used instead as applicable.

Tenderers whose proposals do not comply with the above requirements will be disqualified, and NBIA shall not be held responsible for any consequences thereof.

1.5.3 **TECHNICAL PROPOSAL**

The Technical Proposal shall include at least the following, which will be evaluated and may serve as a basis for CSC contract negotiation:

Item T1: Covering letter of proposal(s).

Item T2: Executive summary of the Technical Proposal, including statement of compliance/deviation but excluding any pricing or cost information.

Item T3: A detailed statement of the Tenderer's understanding of the requirements and objectives of the CSC Services, including comments on the TOR if any.

Item T4: Narrative description of the proposed approach to and methodology for the management and implementation of the required CSC Services. The approach and methodology statements shall show comprehensively how the work will be accomplished and shall include, as a minimum:

Narrative explanation of the proposed work plan,

Proposed staff assignment and job descriptions,

Bar chart showing tasks and time frames of the CSC Services and

Ørganization chart of the proposed team indicating the names of candidates and narrative description of the proposed team management plan.

Outline of the proposed Quality Assurance methods and a list of QA procedures proposed for the CSC Services.

Tenderer's understanding of the SBIA Project and the construction contract, indicating problems foreseen preliminary suggestions for solutions, if anical

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Item T5:

Item T6

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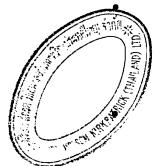
Item T7: Manpower Planning and Curricula Vitae.

The CSC shall provide adequate numbers of professionally qualified supervision personnel, fluent in the English language. Each senior manager or supervisor shall have not less than 15 years practical work experience in the construction supervision of major Airfield Pavements and Airports.

The relevant Thai laws and regulations require that Engineers and Architects employed by the CSC to practice Engineering or Architectural services must be registered in Thailand.

The manpower planning data shall include but not be limited to the following information:

- Curricula vitae of the proposed management and engineering personnel, presented in the format of the Standard Form 1-I shown in Annex 1;
- Bar charts showing the proposed management and engineering personnel and other key staff, by name and discipline, and their man-months of involvement in the CSC Services; the summary shall be presented in the format of Standard Form 1-II shown in Annex 1;



Certification that the named staff are bona fide employees of the Tenderer. If outside sub-consultants are proposed, provide a statement from each individual that they are available during the proposed periods and fully committed to the CSC Services.

Tenderers must complete the Task Allocation Form (Form 1 II a) identifying the candidates proposed for the tasks identified.

Item T8: Statements of Tenderer's Project Experience.

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Each Tenderer's specific project experience will be evaluated during the Technical Proposal evaluation. Statements of experience of the Tenderer, as a consulting firm, in construction supervision or construction management shall be submitted in the format shown in Annex-1, Standard Form 1-III. The Record of Project Experience for the previous 10-year Span Company Limit period shall be submitted. Information on projects that are the submitted in the format given.

Project Experience must be submitted in the standard format; wise it will not be evaluated (Note: Information provided in company brochures or other non-standard formats will not SOUTHEAST ASIA TECHNOLOGY COMPANY LIMITED CONSIDERED in the evaluation). Clearly indicate the tasks involved in the projects (refer to Sub-clause 127 never for

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Item T9: Tenderer's Structure and Organization.

A list of the member firms shall be provided, for Tenderer that is a joint venture company or a consortium of firms. If the Tenderer is a sole company, simply state the name of the Tenderer.

If the Tenderer is a joint venture company or a consortium of firms the Tenderer should provide a clear statement that the Tenderer has not changed its member firms since the application for pre-qualification.

Also clearly indicate any changes in the address, contact phone/fax number, structure, organization, management, capital amount, etc. which have taken place after the prequalification application relating to the Tenderer or to any of the member firms of the Tenderer's joint venture or consortium of firms.

Item T10: If the Tenderer is a joint venture company or a consortium of firms it shall submit a copy of the joint venture agreement or consortium agreement clearly stating the share of each member firm and that the member firms are jointly and severally responsible for the performance of the CSC Services and liable to the Employer.

A copy of a draft agreement is acceptable if accompanied by a letter signed by authorized representatives of all the member firms clearly indicating the intent to form a joint venture or a consortium if the contract is awarded.

Item T11: Any proposed deviations and exceptions to the TOR or conditions of the Proposal.

Item T12: A description of any litigation in which the tenderer or any member thereof is currently involved.

Item T13: Documents verifying the authorities of the southeast. Asia Technology Company Limited authorities of the southeast authorized representatives of each member firm if the Tenderer is a joint venture Span Company Limited pmpany or a consortium of firms. Norconsult

นริษัท สักโปนเฮ้มกับ14: Fully completed but <u>unpriced</u> version of the Financial Proposal (Items F2 through F8 inclusive).

All relevant information other than the price or cost information, include a list of proposed exceptions to the TOR and conditions of the Financial Proposal.

documentation received before the closing date, including but not limited to the answers to queries, in the closing reference numbers, titles and date.

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Provide any additional information that the Tenderer would like to bring to the attention of NBIA.

Item T17: A Statement, signed by the Tenderer's authorized representative, certifying that the information submitted is accurate and true to the best of his/her knowledge.

1.5.4 FINANCIAL PROPOSAL

The Financial Proposal shall include at least the following and show a lump sum fee, only in Japanese Yen and/or Thai Baht, for providing the **CSC Services:**

Item F1: A copy of the covering letter of proposals, as included in the Technical Proposal, or separate covering letter of the Financial Proposal.

Item F2: A fully completed Standard Form 1-IVa.

> Provide the total number of man-months and the all-inclusive monthly rates, by named individual. The Supporting Staff may be identified by profession (e.g. Secretary-1, accountant). Note that the all-inclusive monthly rates are to include for all overtime working.

Item F3: Fully completed Standard Form 1-IVb.

Provide all-inclusive monthly rates, by named individual, including salaries, wages including overtime wages, fringe benefits, profit, overhead and other labor-related costs. The rates shall be fixed for the entire duration of the CSC Services, which is estimated at 28 calendar months (i.e. 26 months overall construction period plus one month before Span Company Limite Postruction start date and one month after issue of the

Taking-Over Certificate for the Whole of the Works). บริษัท สมเช็บ จำกัด

Item F4: Fully completed Standard Form

SOUTHEAST ASIA TECHNOLOGY CONPANY LIMITED Breakdown of the Direct Costs, indicating the item description, unit of measurement, quantity, unit rate and the sum for each item of the Direct Costs. The Direct Cost items

shall include, but not be limited to:

The CSC's own office at the construction site, including the sewerage mains,

costs for distribution panels, connection fees, meters and the like(

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Item F5:

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- Temporary office space, properly furnished and equipped, for the CSC's own use until the office space at construction site becomes available,
- Site office furniture, equipment including computers, printers, etc., and office supplies,
- Utilities (electricity, water, telephone, etc.) and
- Transportation.
- N.B (1) An earth platform and utility connection points (except to the sewer mains) at the access road nearest to the site office will be made available by the Employer free of charge to the CSC.
 - (2) Direct Costs of any off-site inspections outside Thailand shall not be included in the Direct Costs.
 - (3) For Japanese Yen portion, the JBIC regulation will apply with respect to eligibility to payments in Japanese Yen.

Item F6: Site office layout plan, sections and elevations.

Item F7: List of proposed site office furniture, equipment including computers, printers, etc, and transportation vehicles.

Item F8: List of proposed deviations and exceptions to TOR and conditions of the Financial Proposal, if any.

1.5.5 **BONA FIDE PROPOSAL**

The Tenderer is required to submit a bona fide, complete proposal that consists of the following:

The Technical Proposal containing at least Items T1 to T17 clusive, (6 copies including one unbound original).

Span Company Limited

The Financial Proposal containing at least Items F1 to F8 inclusive, นรินักสมมัน ว่าผู้เรื่องpies including one unbound original)

> The proposals shall comply strictly with the requirements of this TOR a whole. Norconsult

Unless a list of deviations and exceptions is submitted, it will be deemed hat the proposals comply fully with the requirements specified in this TOR. No later claims due to failure of the Tenderer to notify the Employer of deviations or exceptions or any misunderstanding of the requirements of the TOR will be considered.

NBIA reserves the right to analyze the proposed in

exceptions to the TOR and conditions of the proposals, to det

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acceptability of the proposals at its sole discretion and shall not be held responsible for any consequences thereof.

NBIA also reserves the right to seek clarifications from the Tenderer on whatsoever subjects as and when necessary to complete the Tender evaluation process. The Tenderer shall comply with the requirements from NBIA within the time specified by NBIA.

1.5.6 **VALIDITY OF PROPOSALS**

The proposals shall remain valid for one hundred and twenty (120) calendar days from the closing date for submission of proposals stipulated in the Letter of Invitation and no Tenderer may withdraw his proposals within the said validity period.

1.5.7 **NOTICES**

Every notice to be given to the Tenderer regarding this procurement will be hand delivered, faxed or e-mailed to the Tenderer's address set out in the pre-qualification submittal. In case of fax or e-mail, the original will follow. Such hand delivery, faxes or e-mails shall be deemed received by the Tenderer on the day of delivery.

1.5.8 ACCEPTANCE OR REJECTION OF PROPOSALS

NBIA is not bound to accept the lowest or any proposal submitted. Noncompliance with any of the conditions and requirements set out in this TOR in any respect or the proposals not delivered by the closing time and date will render the proposals invalid. NBIA's decision on acceptance or rejection of proposals shall be final.

1.5.9 **EXPENSES**

All costs and expenses incurred by the Tenderer in the preparation and submission of the proposals, up to and including the issue of a Letter of Award shall be borne by the Tenderers. NBIA shall in no case be held responsible for such costs and expense.

ADDITIONAL COPIES OF TERMS OF REFERENCE

In the event of the Tenderer, at his request, being supplied with additional copies of the documents related to this procurement exercise, it would be the sole responsibility of the Tenderer to scrutinize such copies and satisfy himself that these are the exact copies of those originally provided to him. Norconsult 🐔

NO ALTERATION

Span Company Limited No unauthorized alteration or erastin allie into fithis TOR will be permitted. Any proposal containing such alteration or erasure will be rejected and NBIA will not be responsible for any consequences thereof.

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1.5.12 **CHECK NUMBER OF PAGES**

The Tenderer is required to check the numbers of the pages of this TOR and should he find any sheets missing or indistinct, he must inform NBIA at once and have the same rectified.

1.5.13 **QUERIES**

- 1) The Tenderer may raise any queries regarding this TOR in writing with the Employer. Queries will be received up to two weeks prior to the closing date for submission of the proposals. The answers to the gueries will be distributed to all Tenderers no later than one week prior to the closing date for submission. Only answers in writing by NBIA shall be deemed to affect the requirements for preparation and submission of the proposals in any way. Relevant letters and documents containing the answers shall become part of the TOR.
- 2) Office visits to NBIA, telephone calls, e-mails or any other form of contact with any member of NBIA's staff or it's authorized representatives, up to and including the day a Letter of Award is issued, are prohibited. To make contact by any means other than those set out in this document may lead to disqualification of the proposals and NBIA will not be responsible for any consequences thereof.
- 3) All queries pertinent to this TOR shall be submitted by fax on the Enquiry Fax Form (Appendix T2) and addressed to:

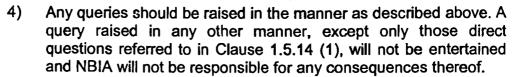
The President

New Bangkok International Airport Co., Ltd.

99 Bangna-Trad Hwy (Km. 15) Rachathewa, Bang Phli Samut Prakarn 10540

Thailand

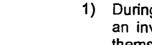
Fax: (662) 723-0010 Span Company Limited นรินัก สมปน สมกัด



5) No liability whatsoever will be admitted by NBIA, nor will a claim to NBIA be entertained, in respect of errors or ambiguities contained in the TOR, which the Tenderers should request NBIA to rectify in the manner described above.

1.5.14 SUFFICIENCY OF PROPOSALS

During the proposal preparation period att Tenderers an invitation to visit the site for the purpose of themselves as to the locality of the site, the site other matters relating to the Works Prior to Metabolithing the



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proposals. The site visits will be programmed and an agenda issued with the invitation. Tenderers will be restricted to one Authorised Representative and two assistants attending the site visit. Any questions arising out of the site visit will be submitted in writing to NBIA and answers will be issued by NBIA to all Tenderers in writing.

- 2) The Tenderer shall ensure that his proposals adequately provide for the whole services or works either shown or described in the documents and/or as may be required inherently by the nature of the Works or the Project.
- 3) The Tenderer shall be deemed to have made allowance in his pricing generally to cover items of preliminaries, overheads and all other expenses, if these have not been priced against the respective items. The technical specifications and drawings, if issued to the Tenderer as part of this TOR, shall be read in conjunction with each other. Any item included in one shall be deemed to be included in the other and the Tenderer shall allow for all costs in his proposal. The technical specifications and drawings are not necessarily complete in reflecting the full scope of the Works, particularly in respect of details.

1.5.15 PRICING

 If any item contained in Standard Form 1-IV is not priced, it shall be deemed that either the cost has been included elsewhere or no remuneration is required in respect of that item.

The unit rate inserted against an item with the lude for al related costs and profit.

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The unit rates inserted will constitute in the c

4) Provisional Sums, where inserted by the Employer, shall be expended in whole or in part as instructed by the Employer. No adjustment to Provisional Sums by the CSC permitted.

1.5.16 ERRORS IN FINANCIAL PROPOSALS

Should any arithmetical or obvious pricing errors be found in a proposal after submission but before opening of the proposal the Tenderer may correct these errors by submission of a written notice advising of the corrections to the same address as that for the submission of the Tender and the corrected total shall be reflected in the Agreement.

1.5.17 FAILURE TO COMMUNICATE NOTICE OBSCURITY OF MEANING

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Should the Tenderers fail to communicate notice of any alleged discrepancy, obscurity of meaning, etc., as aforesaid, NBIA reserves the right to accept their proposals without alterations to content or amount.

1.5.18 WHOLE OR PART OF PROPOSALS

(1)

NBIA reserves the right to accept part or whole of the proposals without adjustment to the rates quoted by the Tenderer. The Tenderer shall not claim for any loss of profit or interest or any other cost whatsoever for omission or acceptance of part of the proposals.

1.5.19 CONFIDENTIALITY OF TENDER

The TOR is intended for distribution only to the Tenderers and is NBIA's proprietary information. No public disclosure of information in this TOR shall be made without the prior written approval of NBIA. The Tenderers shall treat all documents and information contained therein as strictly private and confidential.

1.5.20 ISSUANCE OF ADDENDA

NBIA may issue addenda to the TOR at any time until one week before the closing date for submission of the proposals. The addenda shall be sequentially numbered and issued to the Tenderers who shall acknowledge receipt by return facsimile and mail. All addenda shall form an integral part of the TOR.

1.5.21 LETTER OF AWARD

1.5.22

After clarification interviews, if any, and contract negotiations, should NBIA accept the proposals, such acceptance will be in writing, by way of issuing to the successful Tenderer a Letter of Award. Any effort and expense incurred by the Tenderers in connection with this procurement exercise prior to receipt of the Letter of Award or the expectation of a written Agreement will be solely at the Tenderers' risk.

PROPOSAL EVALUATION PROCEDURES Span Company Limited

The evaluation of the Technical Proposals will be shifted to opening the Financial Proposals. The evaluation will be based on a 1000 points rating system as follows:

Approach and Methodology (Items T3 toT6)

Manpower Planning and Curricula Vitae (Item T7)

Tenderer's Project Experience (Item T8)

Total

300 points
500 points
200 points
1,000 points

Items submitted other than those listed above, will only be taken into account as and where necessary to complete the evaluation, at the discretion of the Employer.

After all Technical Proposals have been evaluated the will be made of the most qualified Tenderers. The first ranked tenderer will be invited negotiate a contract based on his Technical and Financial Proposals.

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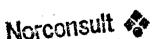
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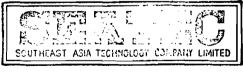


If NBIA and the first ranked Tenderer are unable to reach an agreement on a contract within a reasonable time, as determined by NBIA, NBIA will terminate the negotiations and invite the second ranked Tenderer to enter negotiations. This procedure will be repeated with the Tenderer(s) in ranking order until NBIA has reached an agreement with a Tenderer. The Financial Proposals of the Tenderers not invited to negotiate will be returned to the respective Tenderers, if so requested in writing.

NBIA is not bound to select or accept any of the proposals, or obliged to defend his evaluation of the proposals.













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CHAPTER 2: CONTRACTUAL OBLIGATIONS

2.1 **FORM OF AGREEMENT**

The form and conditions of agreement, which the selected Tenderer ("CONSULTANT") and NBIA ("EMPLOYER), will execute for the CSC Services (hereinafter called "the Agreement"), shall be based on the agreement format currently in use by the Employer. A copy of the agreement format entitled "Form of Consultant Services Agreement and Conditions of Agreement" is included as Annex 2.

The scope of the CSC Services is summarized as follows. Detailed requirements are defined in Chapter 3.

2.2 PROGRESS REPORTING AND COORDINATION

The CSC shall report directly to the Employer.

Comprehensive Monthly Progress Reports on the Works and on the CSC Services shall be prepared; the former giving a description of the progress of the Works, photographs and other information on the performance of the Contractors, and the latter presenting a description of the CSC's accomplishments. Eighteen (18) hard copies and an electronic copy of the Reports shall be submitted to the Employer and three (3) hard copies shall be submitted to PMC within 5 days of the end of each reporting period.

Thirty (30) hard copies and an electronic copy of the Final Reports on the Works and the Services shall be submitted at the completion of the Works and the Services.

Additionally, the following records shall be kept:

CSC and Contractors Daily Diaries:

The CSC shall keep full detailed records relating to all aspects of the Works and the Services. Such records shall be available for inspection at all times by the Employer and PMC. Copies rese daily diary records shall be submitted to the Employer any

As-Built Drawing Norconsult Span Company Limited

The CSC shall keep himself up to date with the changes and revisions to the Works and shall review and approve As-Built Records including As-Built Drawings to be prepared by the Contracto

Video Recordings:

SOUTHEAST ASIA TECHNOLOGY COMPANY LIMITED The CSC shall record in Thai and English languages, on high-quality video tape, the construction progress, and on a quarterly bas deotape, with a recorded time of between 30 and up-to-date status of the Works.

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After the entire Works are completed, videotapes of about 60 to 90 minutes each in Thai and English languages shall be compiled, covering important items of the Works. Ten (10) copies of this videotape in each language shall be submitted.

2.3 LANGUAGE, WEIGHTS AND MEASURES

The English language shall be used in all written communications. All correspondence, documents, records, reports, diaries procured or prepared by the CSC for the Services, shall be presented in the English language.

The International System of Units (SI) shall be used for all weights and measures unless otherwise specified in the Agreement or the Contract Documents.

2.4 QUALITY ASSURANCE.

The CSC shall prepare a Quality Assurance Plan for the Services to be used during the implementation of each of the stages of the Services. It shall cover all phases of the Services and shall apply to all subconsultants employed by the CSC (See Chapter 4).

2.5 COMPUTER PROGRAMS AND EQUIPMENT

The CSC shall submit hard copies and electronic documentation in accordance with the Agreement.

The files shall be delivered on 3.5 inch, 1.4-megabyte diskettes formatted for use with the MS Windows operating system (latest version). Large files may be provided on 100 MB zip drive formatted zip disks or 640 MB CD-ROM disks.

Each diskette or disk shall be labeled indicating the diskette/disk reference number, contract number, CSC's name, file name(s) and deliverable document contained in each file on the diskette/disk. The CSC shall provide a master list of diskettes and disks monthly indicating the above information for all submitted diskettes and disks.

The files submitted shall be complete for use with the parent software without the need for additional software other than that normally provided by the operating system and the parent software. The files shall contain all formatting information necessary to reprint the original printed deliverable in its original formatted form.

Files may be compressed using PKZIP compression and/or distributed over multiple diskettes or disks using PKZIP V2.04G or other compression software that has been approved prior to submittal. If PKZIP or other software is utilized, the software used shall be the same for each file and shall be provided in its original licensed form with the first set of diskettes or disks.

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CHAPTER 3: SCOPE OF CONSTRUCTION SUPERVISION SERVICES

3.1 GENERAL

The CSC shall perform all of the CSC services described herein and as specified or implied in the Construction Contract Documents including, but not limited to, the Conditions of Contract, Supplementary Conditions, Specifications, Special Provisions, Addenda, and Contract Drawings, and other such work and services necessary to achieve the objectives set out in the Agreement. In performing the services the CSC shall fully cooperate with the Employer, the PMC, and their authorized representatives. The CSC is required to provide an integrated system for administration of the technical and contractual elements of the Construction Contract.

It should be noted that the Contractor's access to certain portions of the construction site might be limited during the early part of the construction. The Contractor is also required to maintain public access to certain facilities, such as klongs and roads, from time to time during the construction period. The CSC shall be required to coordinate such operations.

Construction of several other airport facilities will be under way during the period of performance of the Construction Contract. The CSC shall coordinate the Contractor's operations with those of all other contractors and CSCs with particular emphasis on interfaces between the Contract and any other interfacing Contracts, refer to "Zone Controller" in accordance with procedure PR/CM/200 in Chapter 5 "Related Documents".

The CSC Services to be performed shall include, but not be limited to, the following activities.

SERVICES TO BE PERFORMED

The CSC shall provide all of the professional staff, services, supplies and equipment necessary to perform the CSC Services and shall act as the duly authorized representative of the Employer in all dealings with the Contractor. All staff members of the CSC shall be available, on a daily basis for consultation on any aspect of the Works and shall provide all data requested by the Employer in association with completion of the Works or the CSC Services. The CSC is to ensure that the Works conform to the Construction Contract and that the integrity of the design concept of the completed project, as indicated in the Contract, has been implemented and preserved by the Contractor within the established time schedule and budget. The CSC shall undertake the various kinds of work and services, activities and responsibilities as mentioned in the Agreement and the Construction Contract.

The CSC shall keep full daily records relating to all a state at and the CSC Services commencing with the date.

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Notice to Proceed. Activities performed each day of the Works and the Services shall be documented in the CSC's Daily Diary. Such records shall be available for inspection at all times by the Employer. Detailed Daily Diaries shall be kept by each member of the CSC's staff and one copy shall be submitted to the Employer and one copy directly to PMC monthly along with the payment applications.

The Services shall include, but not be limited to, the following tasks:

3.2.1 CORRESPONDENCE

The CSC shall submit all correspondence to the Employer, with a copy to PMC.

All correspondence shall be numbered in accordance with the procedures set out in the Project Procedures (Appendix T3 herein) and as directed by the Employer.

The CSC shall maintain a correspondence register of all correspondence (Construction Contract related and CSC Services related) on a Database.

3.2.2 DRAFTING

The CSC shall develop all deliverable drawings in digital form using AutoCAD R2000 drafting software or approved later version. The CSC shall deliver all project drawings in the native (D) commat of AutoCAD R2000.

3.2.3 scheduling Norconsult 💮 Span Company Limited

The CSC shall provide a detailed proposed construction schedule in computerized form prepared in the latest commercially available version of Primavera Project Planner (P3 for Windows). Where applicable, the tasks developed in the Schedule shall be subdivided and identified in accordance with the Work Breakdown Structure for tasks provided herein. The CSC shall provide the files in the native file backup format of P3. The files submitted shall be complete for use with P3 without the need for additional software other than that normally provided by the operating system and P3.

COST CONTROL DATABASE

The CSC shall prepare and maintain a cost control database in Microsoft Access compatible (MDB) files in Bill of Quantities format, which should be extended to include the following fields:

- Progress in this period planned and actual.
- Accumulated progress up to end of previous period planned and actual,
- Accumulated progress to date planned and actual
- Percentage accumulated to date planned, NEW TOWNSHIELD OF THE NATIONAL MEDICAL TOWN TOWNSHIELD OF THE NATIONAL TOWNSHIELD OF THE NATIONAL MEDICAL TOWNSHIELD OF THE NATIONAL MED

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- Percentage accumulated to date actual and
- Balance of work to complete.

3.2.5 MONTHLY COST CONTROL AND FORECAST

The CSC shall provide detailed construction cost control information as detailed under Clause 3.5.(7).

The files submitted shall be complete in themselves for use with Microsoft Access (latest version) or other approved compatible data management system without the need for additional software other than that normally provided by the operating system and Microsoft Access.

3.2.6 DOCUMENT CONTROL AND ADMINISTRATION

The CSC shall utilize a computerized system for controlling all documentation transmittals and submittals, using the latest commercially available version of Expedition Contract Control software by Primavera Systems, Inc.

The files shall be complete for use with the Expedition software without the need for additional software other than that normally provided by the operating system and Primavera Systems, Inc.

3.2.7 SUBMITTALS

Documents to be submitted by the CSC are described in Chapters and 4. The Employer shall also have the right to described that the CSC submit additional documents as and when required for proper handling of the Services, the Works and the Project. The submitted additional documents shall be submitted within a reasonable to the request.

3.2.8 PAYMENT Norconsult Span Company Limited

Form and schedule of payment to the CSE will be completed as part of the negotiations of the Agreement. Personnel and all other costs of the Services shall be paid in Japanese Yen and/or that Baht as proposed in the Agreement.

3.3 CONTRACT ADMINISTRATION

Contract Administration duties included are:

- 1) To ensure that the Contractor is in full compliance with all financial and commercial terms of the Construction Contract. Establish and maintain a file, for the Employer's and PMC's review as required, to document the Contractor's compliance. The CSC shall submit, the standard forms which he proposes to use, for the Employer's approval.
- 2) To notify the Employer on any changes in the contract Documents that may prove necessary or desirable (turns) that may be a supplied to the contract Documents that may prove necessary or desirable (turns) that may be a supplication of the turns) that may be a supplication of the turns of turns of

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specifications, time schedules and cost estimates needed to accomplish the work. Submit all Contract change documents to the Employer for approval before issuing to the Contractors.

- 3) Prepare a monthly Cost Report as the Works progress. Upon completion of the CSC Services, prepare the Final Account. The Account shall include a pproved and agreed variation orders and claims and assessments of the final outcome of each of the pending variation orders and claims, with fully substantiated documentation.
- 4) To examine and evaluate the contractual validity of claims by the Contractor for extensions of time, payment for extra work and other matters and prepare necessary documentation and recommendations to the Employer for consideration.
- 5) To negotiate with the Contractor on the rates for any unscheduled items of the Works that may arise and make recommendations to the Employer.
- To monitor the status of the Contractor's procurement of materials and equipment required for construction of the Works. Maintain copies of unpriced purchase orders, irrevocable letters of credit and other commercial documentation to as a supplementation to as a supplementation to a supplementation to
- On a monthly basis, to verify, through research the quantity of the Works installed and accepted. Check the quantities and certify the accuracy of the Contractor's monthly requests for progress payments.
- 8) To monitor the safety, security and environmental measures provided by the Contractor and take appropriate action to ensure that the Contractor is in compliance with the approved procedures.

3.4 ENGINEERING

The CSC shall, amongst other things:

1) Monitor the Contractor's activities to ensure that the Works are in full compliance with the Construction Contract.

- Establish and maintain throughout the period of the CSC Services a file, for the Employer's and PMC's review as required, to document the Contractor's compliance.
- 3) Investigate and identify any obstructions within the construction site or impeding access to the construction site and report the results of the investigation to the Employer not less than 14 days prior to the Contractor entering or beginning the Works or parts thereof in the identified construction areas.

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- 4) Prepare a report, listing any obstructions to the Contractor's performance of the Works and the CSC's recommendations.
- 5) Prior to the Contractor's mobilization, locate the benchmarks and determine the setting out of traverse and control points.
- 6) In company with the Contractor's survey personnel and using the Contractor's resources, physically observe and venify the location of each survey control point required for completion of the Works. The CSC shall ensure that all necessary control points are located, missing points are reset and that all points located within the work area are offset or otherwise preserved throughout the construction period.
- 7) Provide professionally qualified personnel to carry out all of the Engineering duties contained herein including testing and commissioning who shall be made available on site at all times when the Works are under way.
- 8) Provide a professionally qualified Consultant who shall be responsible for reviewing, approving and monitoring of the Contractor's instrumentation/monitoring program whenever necessary.
- 9) Provide a qualified and experienced Quality Assurance Manager who shall be responsible for reviewing and approving the Contractor's Quality Assurance Plans and monitoring and auditing of the Contractor's Quality Assurance activities and performance.

The CSC shall manage the submittal process as sollo

Establish a submittals approval proceduspan Company Limited

Agree with the Contractor and prepare a detailed schedule of all Technical Submittals required of the Contractors.

Identify in the schedule of Technical Submittals which are critical to the schedule so that early approval can be given.

Identify the Submittals that require the Employer's approval and highlight these on the submittals schedule.

Submit copies of the Contractor's Technical Submittals to the Employer for review and comment as and when requested.

Review and approve or otherwise of the Contractor's Submittals.

iscuss and agree with the Contractor on all comments prior to approval or otherwise of the Contractor's Submittal.)

Keep the Submittals Schedule up to date for review countries contributed in the Monthly Report unnancommunication of the Employer and include in the Monthly Report unnancommunication of the Employer and include in the Monthly Report unnancommunication of the Employer and Include in the Monthly Report unnancommunication of the Employer and Include in the Monthly Report unnancommunication of the Employer and Include in the Monthly Report unnancommunication of the Include in the Inclu

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- i) Maintain current copies of all Submittals for review by the Employer.
- j) Ensure the Contractor keeps current copies of all Submittals and stores all approved samples on site in a proper samples room for review by the Employer.
- k) Ensure that the Contractors start no relevant work before required approvals are issued.
- 11) Provide daily surveillance and document, in the form of Daily Diaries, the Contractor's activities including numbers of each type of equipment used, number of workforce by trade, location of the activity, hours of work and any significant events occurring each day. Document in the Daily Diaries any deviations from the requirements of the Technical Specifications.
- 12) Supervise construction or installation of the Works and provide documentation to assure the Employer that the Works and the materials and equipment meet all technical requirements.
- 13) Provide technical resolution of differences between the design conditions shown in the Contract Documents and conditions encountered in the actual field. If field conditions dictate the need for changes to the design conditions of the Contract, prepare necessary technical documentation as required with recommendations as to action required.
- 14) Measure and mark up, on a daily basis, the Contractor's progress on the Master Programs and the drawings to show the daily updated status of the Contractor's progress.
- 15) Witness the carrying out of all tests, inspections and commissioning called for in the Specifications and review and vertical elevant documents, as required to ensure the quality company Limited
- In the event that use by the Employer of certain bondiers of the Works is required prior to taking-over of the entire Works, review the Specifications, conduct and document a partial acceptance inspection as required for partial acceptance of such completed portions.
- 17) Carry out and document a final inspection for taking over of the entire Works; prepare and manage the completion of acceptance punch lists; and certify the completion of the Works.
- 8) Examine and evaluate the technical aspects of claims by the contractor for extensions of time, payment for extra work and other matters and prepare necessary documentation and recommendations for the Employer's consideration

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- 19) Establish a system to assure that all features of the Works, as built, are properly documented and maintain copies of all As-Built information. Keep up to date with the changes and revisions to the original Works and review and approve As-Built Records prepared by the Contractor. Ensure that as-built data is recorded on a daily basis in accordance with the Contractor's progress such that a comprehensive record is available at the completion of the Works. Make sure that all As-Built Drawings are prepared in AutoCAD R-14 (or latest version) electronic format as defined in the Construction Contract. Any instrumentation data sheets and test data required to document Contractor's compliance with requirements of all of the Technical Specifications shall be included in the As-Built Records.
- 20) Monitor and report on the Contractor's rights of way and work site availability requirements.
- 21) Monitor and report on the Contractor's compliance with environmental requirements and mitigation obligations.

3.5 SCHEDULE AND COST CONTROL

The CSC shall prepare in electronic format and in hard copy, all necessary actual and forecast data, and analysis of the data, regarding schedule and cost status of the Works, and submit them to the Employer in a format to be agreed with the Employer. All data presented shall be supported by properly documented, detailed, actual and estimated productivity statistics.

The CSC requirements are to consult

- 1) Review and make recommendations to the Employer on the acceptability of the construction schedule prepared by the Contractor that shall ensure timely completion of the parts and whole of the Works and the proper coordination of works of interface with other contractors. Manage and coordinate the Contractor's preparation of the project schedule assistance as required, in particular regarding the interface with other contractors.

 Span Company Limited
- 2) Monitor the Contractor's progress in accordance with the approved construction schedule. If the progress is found falling behind the approved schedule, direct the Contractor to propose methods to improve the construction progress. Review the Contractor's proposals, discuss and make necessary recommendations to the Employer, ensure the Contractor implements any approved proposals. Liaise with other CSCs/PMC on progress on interfacing contracts and propose remedial actions to any potential interface problems in co-operation with the other CSCs/PMC.
- 3) Review and verify the Contractor's Daily Resources Reports and notify the Employer of any differences between the scheduled rate of progress and the actual performance.



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- 4) Prepare individual sub-network schedules as required for interface management. Assist and advise the Employer in all relevant works.
- 5) Prepare a progress status drawing using AutoCAD, to be updated weekly and suitably displayed in the site office, to show the progress of major elements of the Works.
- 6) Assist the Contractor in preparing short term programmes that shall be the basis of discussion at the Weekly Contractor's Progress Review Meetings. These programmes shall show the status of scheduled activities of the previous period, current period activities, and work scheduled for the following period.
- 7) Prepare and maintain a computerized cost control database in Bill of Quantities format that includes additional fields to monitor the progress of the Works as follows:
 - Progress in this period planned and actual,

Accumulated progress up to end of previous period – planned and actual,

Accumulated progress to date – planned and actual,

Percentage accumulated to date – planned.

Percentage accumulated to date – actual and

Balance of work to complete (from original scope of works).

Separate tables shall be maintained for the Works, variation orders and claims.

- 8) For inclusion in the Monthly Progress Reputation ed on the information contained in cost control databases and in item 7 above, produce the following:

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 - Percentage completion curve **#3sinting u Appr**actor's scheduled and actual achievement in terms of the total cost.
 - Construction/installation rate curves to illustrate scheduled and actual production rates for construction/installations of major items of the Works.
 - Budget status of the Contract, including the current status and forecasts of the final costs and future monthly cash flow requirements for the entire duration of the Contract, updated on a monthly basis.
- 9) Prepare own detailed cost estimates and cash-flow forecasts of the Works in a computerized form on a monthly basis.
- 10) Upon receipt of the Contractor's cost and schedule submittals, transmit copies to the Employer for review and discuss the comments prior to approval or otherwise the contractor's

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submittals. All schedules and cost data prepared by the CSC shall also be submitted to the Employer for approval.

11) Provide a narrative summary of the status of the schedule and cost for inclusion in the monthly progress reports and for use at the Quarterly Executive Review Briefing.

3.6 REPORTING

All reports shall be presented in hard copy as well as in electronic media in a format approved by the Employer. Unless otherwise instructed, eighteen (18) hard copies together with an electronic copy shall be submitted to the Employer and three (3) hard copies to PMC. The Employer shall provide distribution lists for each report.

The reports to be submitted by CSC shall be:

Contractor's Daily Resources Report: Not later than 10:00 A.M. on the day following the date of the report (5 hard copies)

Weekly Progress Report: In narrative form and preferably of not more than two pages in length, to provide an up-to-date summary of the status of the Works, to be submitted on the first working day of the week following the report week. An electronic copy of these Reports shall be submitted at the time of submission of the last Report of the month and is to be submitted within two (2) working days of the end of each reporting period.

Monthly Progress Report: To provide a comprehensive status of Works. To be submitted within five (5) days of the end of each reporting period. The Report shall contain as a minimum

1) Narrative summary of current progress story of the Works.

Span Company Limited

- 2) Updated construction schedule showing Light attack actual progress for all major activities.
- 3) Cost status showing current Contract value including a list of approved and/or pending variation orders and claims. Show forecast and actual monthly cash flow for the entire duration of the Contract.

4) Progress curves showing the originally achequied and actual outputs for major items of the Works.

5) A sufficient number of 200 mm x 250 mm colour pictures; suitably labelled and dated, to illustrate progress of the Works described in the Report.

6) Status of receipt, review and approval of Contractor's submittals.

7) Status of inspection and testing activities showing no completed, number accepted and number rejected

- 8) A Quality Assurance Report including the status of Quality Assurance Systems and submissions for the Contractor's systems. The report shall also include a summary of the status of non-conformities, defects and audit programs for the Contractor.
- 9) An up to date correspondence register for the Construction Contract.
 - i. Status of Contractor's Construction Safety Program.
 - ii. An exception list to document items requiring attention to preclude delays to the schedule or cost overruns, assigning parties responsible for resolution of each item.
- iii. List and description of current and potential problems and recommended course of action.

Note: (all diagrams/tables/schedules/status registers/etc. shall be submitted in electronic file format as well as hard copy in the Report)

Executive Summary Report in support of the Quarterly Project Review Meeting. To be submitted no later than two (2) weeks before the date of the Meeting.

Topical reports to document the results of discussions regarding technical and contractual issues, to be submitted as and when required.

Upon completion of construction and following the issue of the Certificate of Completion of the Works, a comprehensive Final Report on the Works. Submit promptly the proposed contents and outline of the Report for the Employers approval prior to preparation of the Report. Thirty (30) hard copies together with an electronic copy shall be submitted within thirty (30) days after approval of the proposed contents.

The CSC is responsible for providing a videotape record to document existing site conditions prior to the Contractors commencing any work. The CSC shall then periodically record the significant aspects of the construction process and progress of the Works on videotape. Prepare and submit, on a monthly basis or as otherwise requested by the Employer, a 30 to 60-minute recorded videotape, containing narrative description, in both Thai and English languages, of the video-recorded activities. After the entire Works are completed, a videotape of about 60 to 90 minutes in Thai and English languages shall be compiled covering important items of the contractors commencing any work.

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The CSC shall establish and implement a standard procedure for calling, conducting and documenting the following meetings. A monthly calendar for regularly scheduled meetings shall be prepared and distributed at the beginning of the month. Agenda of the meetings shall be discussed and agreed and distributed in advance as required. The standard minutes of all meetings and distribute the copies on the copies.

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the meeting to all parties included on distribution lists approved by the Employer.

The CSC's responsibility regarding the meetings includes, but is not limited to, the following:

- 1) A Kick-off Meeting must be held within 10 days of the date of the 'Notice to Proceed' to the Contractor. The CSC shall make all necessary arrangements, conduct and document the Meeting. This meeting shall be held on the site. Prepare an agenda and detailed implementation plan for the Meeting and submit them to the Employer for approval not less than five days before the Meeting.
- 2) Conduct and document Weekly Contractor's Progress Review Meetings. Prepare a standard format for documenting these Meetings for the Employer's approval. The format shall include:
 - List of Attendees.
 - Date, time and location of the Meeting.
 - Discussion of items noted in the previous week
 - Items requiring attention in the current week.
 - Discussion on the short term programmes. Parties to take action and the time limit for the action.
- 3) Conduct and document Weekly Construction Safety Meetings with representatives of the Contractor and all sub-contractors involved in the Works. Also, participate in the Overall SBIA Project Construction Safety Meetings, as required by the Employer, where the Contractor's safety issues may be discussed as part of the Overall SBIA Site Security issues in lieu of a separate Meeting.
- 4) Conduct, document and/or participate in Cooperations with outside agencies, other contractors and when required. Note: Span Company Limited
- Conduct and document Monthly Progress the Monthly Progress, in which the Contractor's progress will be reviewed and discussed based on the information contained in the Contractor's and CSC's Monthly Progress Reports. Prepare a list of differences between the CSC's and the Contractor's assessment of the progress and any necessary additional data and information to substantiate the CSC's assessment. Answer the regarding progress of the Works.
- Prepare for and conduct an executive level Quarterly Project Review Meeting to present the status of the Works, revisions to the budget and schedule, if any, and provide the little required for the Employer to properly manage the

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framework of the overall SBIA Implementation Program. The CSC is responsible for all arrangements required to conduct this meeting, at a mutually agreeable site near the Project, including all necessary arrangements for a tour of the construction site by all attendees. All costs a ssociated with this meeting shall be at the CSC's expense.

3.8 DOCUMENT CONTROL

The CSC shall develop a procedure and system for document control, in coordination with the Employer. The procedure shall describe a uniform method of initiating, authorizing, processing, distributing and storing outgoing documents and receiving, distributing, actioning and storing of incoming documents, and retrieving the documents from storage.

The CSC shall use the Expedition Contract Control (by Primavera Systems, Inc.) computer software to document all aspects of the Works electronically.

The document control system shall provide a record of each revision of each technical submittal including drawings, copies of all correspondence, all schedule and budget data, and all progress data related to the Contract. The system shall be capable of providing copies of any contract-related documents and correspondence within one hour from the receipt of a request.

Minimum requirements of the system shall include:

- 1) Preparing a document coding and filing system to enable tracking of the status of all correspondence and documentation associated with administration of the Contract and ensuring that they are readily retrievable. Submit the system configuration for approval to the Employer not more than 14 days from the Notice to Proceed.
- 2) Maintaining a system to record the status of all documentation and correspondence involved in implementation and completion of the Contract. The status information shall include the date received, sent, subject, action required, person responsible for the action, time limit for the action, and the date action was completed.
- 3) Establishing and maintaining an auditable file for copies of allumited
 - Documentation required by the Construction Contract.
 - Incoming and outgoing correspondence related to the Construction Contract.

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 - Technical data submitted, to be filed by the reference Division and/or Clause number of the Contract Documents.
 - Materials testing records and reports

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- 4) Establishing a numbering system for all contract correspondence and advising the Contractor of the administrative procedure to be used for official correspondence.
- 5) Preparing a standard form for Contractor's submittal of technical data, submitting it to the Employer for approval and, upon approval, transmitting it to the Contractors for their use.
- 6) Providing an electronic back up of all the records on a weekly basis.

3.9 PUBLIC RELATIONS

Public Relations associated with the Project are the responsibility of the Employer.

The CSC is specifically prohibited from issuing any information to the public without prior approval of the Employer. All public relations material prepared for this Project shall be issued or distributed only by the Employer unless otherwise directed.

The CSC shall prepare Public Relations material related to the Works or the CSC Services as and when required by the Employer

3.10 CONSTRUCTION SAFETY

The goal of the Project implementation organization that have time accidents. The CSC, in conjunction with the Contractor, shall establish a very comprehensive construction safety program, lead by a senior construction safety professional reporting directly to the CSC's Project Manager. Prior to approval or otherwise of the Contractor's Safety Plan and Program submittal, forward a copy to the Employer for review and incorporate any comments.

The CSC shall prepare and submit a safety plan for his own services that shall cover the requirements for his own organization and personnel. The CSC shall incorporate into this plan the requirements of the Employers Project Safety Plan and Procedures. He shall also describe how he shall monitor, review and report on the Contractors compliance with the Contractors approved Safety Plan and Procedures.

The CSC shall also provide an adequate number of certified construction safety personnel to monitor and audit the Contractor's Safety Program. Monitor and review the Contractors implementation of Safety Procedures. The CSC's safety personnel shall monitor Contractor's daily safety performance, and report upon their compliance with the approved Safety Plan and document the results of the Contractor's safety activities.

In addition to the construction safety responsibilities, the CSC's safety personnel shall be responsible for monitoring the health and hygiene aspects of the Contractor's work sites and labour housing facilities. The CSC shall ensure that professional medical staff and the contractor's work sites and labour housing facilities.

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the Contractor on a 24 hour per day, 7 day per week basis to attend to the needs of the Contractor's and CSC's personnel.

3.11 CONSTRUCTION SITE SECURITY

The Employer has developed a Project security plan. The CSC is required to review the Contractor's Security Plan to ensure that it complies with the Employer's requirements.

Important elements of the Contractor's Security Plan are:

- 1) Informational signs must be adequate to properly guide traffic from the site boundary to the site of the Works.
- 2) Access to the site by unauthorized personnel must be strictly controlled.
- 3) Delivery vehicles must be controlled such that access to the site is not obstructed at any time.
- 4) Material deliveries must be controlled such that materials received at the site boundary are delivered to the proper place.
- 5) Proper authorization must be issued for removal of any materials or equipment from the site.

Prior to approval or otherwise of the Contractor's Security Plan, submit copies to the Employer for review and incorporate comments as required.

The CSC shall audit and monitor the Contractor's security activities and enforce corrective actions as required. Assist the Contractors in the preparation of appropriate Security Plans and Procedures

3.12 GENERAL ADMINISTRATION

The CSC shall construct, operate and maintain its site office throughout the period of the CSC Services and remove upon completion (if so instructed by NBIA). The CSC shall manage the day-to-day operation and maintenance of the office such that the office facility, equipment and supplies remain fully functional at all times.

The CSC shall secure, and keep in good condition at all times throughout the period of the CSC Services, the mean period of the CSC Services, the mean period of the CSC Services, the mean period to implement the CSC Services file they and effectively.

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The CSC shall make necessary arrangements for the courier services as required.

Apart from the Monthly Progress Report on the Works, the CSC shall prepare and submit twenty (20) copies and an electronic troughout twenty (20) Report in an approved form months throughout the period of the CSC Services. The Reports shall describe

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the activities undertaken and achievement accomplished by him, and shall be submitted to the Employer within 5 days of the end of each reporting period.

Upon completion of the CSC Services and following the issue of the Certificate of Completion of the CSC Services, a comprehensive Final Report on the Services shall be submitted to the Employer. Submit promptly the proposed contents and outline of the Report for the Employer's approval prior to preparation of the Report. Thirty (30) hard copies together with an electronic copy shall be submitted within thirty (30) days after approval of the proposed contents.





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CHAPTER 4: CONSTRUCTION SUPERVISION QUALITY **ASSURANCE**

4.1 **GENERAL**

First level quality control and assurance responsibility of the Works is assigned to the Contractor. The CSC shall be fully responsible for his own quality control and assurance of the CSC Services. The CSC must provide the necessary staff expertise to manage an effective Quality Assurance and Quality Control programmes for the CSC and the Contractor. The CSC shall provide all facilities, equipment and services that are necessary to ensure that the quality of the Works and the CSC Services meet the respective specification requirements.

4.2 **QUALITY ASSURANCE PLAN**

The CSC shall prepare a Quality Assurance Plan (hereinafter called "the QA Plan") specifically for the CSC Services. The purpose of the QA Plan is to establish standard procedures that will aid the CSC key personnel and support staff in the implementation of the CSC Services.

The QA Plan shall consist of, as a minimum, the following requirements:

The CSC's organizational approach to Quality Assurance and the members of the team responsible for Quality Assurance, including the identity of all key members by discipline and their responsibilities.

Quality Procedures, prepared in an approved standard format, complete with standard reporting forms. A separate procedure is required for each specific work activity of the CSC defined in the Agreement and the Construction Contract including all testing and inspection activities (tests completed, test accepted/rejected and follow up procedures for acceptance of previously rejected work).

CSC's Quality Assurance Program, addressing all of the QA Plan and Procedure elements described in this Chapter 4.

A draft of the proposed QA Plan, including outline Procedures, shall be submitted within 14 days from the date of Notice to Proceed. The Employer shall approve or otherwise the Plan within 14 days of receipt. If approved with recommended changes, the CSC shall incorporate the changes and resubmit for approval within 7 days. If the Employer rejects the Plan, the CSC shall review the cause for rejection and submit a revised Plan within 14 days of receipt of the rejection, incorporating the Employer's requirements.

The CSC's approved QA Plan shall be in place prior to the Contractor beginning any work on the site.

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4.3 QUALITY ASSURANCE REQUIREMENTS

The CSC shall, in relation to quality assurance requirements:

- 1) Implement and maintain the CSC's own Quality Assurance Systems.
- 2) Review and approve the Contractor's QA Program and monitor its implementation.
- 3) Monitor, witness and audit as necessary tests on all materials and workmanship performed by the Contractor, both at the site and outside the site, to ensure that the materials and workmanship conform to the specifications. Notify the Contractor immediately of any non-compliance or rejection, followed by details in writing later. Maintain files of all testing data, to be available for the Employer's review on a daily basis.
- 4) Maintain daily diaries to ensure that testing frequencies and methods meet the specifications. Maintain records to demonstrate that the required inspection and testing is carried out and that all parts of the Works completed by the Contractor meet the specifications.
- 5) Ensure that the Contractor develops and implements a system to assure the Employer that the portion of the Works in place that failed to pass a test is properly recorded, reworked and subsequently retested to confirm compliance with the specifications.
- 6) Establish a reporting system to provide the status of inspection and testing activities to be published in the Monthly Report.
- 7) Conduct a regular program of QA audits to check if the Contractor is adhering to the approved QA Plans and Procedures. Issue instructions to the Contractor, copied to the Employer, stating the necessary corrective actions to be taken by the Contractor and continue to monitor that the corrective actions are taken properly.

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