

**Tender Document for**  
**“Design and Build of the Waterproof**  
**Construction for Cargo Warehouse**  
**(RFQ-238)”**

## Tender Timetable

| Description   | Date                             | Remark  |
|---|----------------------------------|---|
| Open Tender Notice  | 4 January 2017                   |   |
| Deadline of Request for Site Visit:<br>Bidder shall submit the name list of the delegates for application for site visit *<br>(Max. 3 persons for each bidder's submission) | 16 January 2017                  | Late submission will <b><u>NOT</u></b> be considered                      |
| Site Visit<br>Meeting Point:<br><i>CAM Office Building</i><br><i>Ground Floor Lobby</i>   | 23 January 2017<br>15:00         | Late attendance may <b><u>NOT</u></b> be allowed to attend the site visit |
| Deadline for Request for Clarification **   | 6 February 2017                  | Late submission will <b><u>NOT</u></b> be considered                      |
| Deadline for Proposal Submission  | 24 February 2017<br>12:00 (noon) | Late submission will <b><u>NOT</u></b> be considered                      |

\* Submission of name list and I.D. copies should be submitted with cover letter via facsimile to (853) 28785465.

\*\*Request for Clarification should be submitted with cover letter via facsimile to (853) 28785465. Verbal enquiry will NOT be responded.

For any enquiry regarding the tendering procedure, please reach our Infrastructure Development Department at 85988871.

## IMPORTANT REMINDER

### 1. Tender Package Requirement:

|  |
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| <p>The outer envelope shall be opaque, sealed with adhesive tape and labelled as follows:</p> <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> <p>Chairman of the Executive Committee<br/> Macau International Airport Co., Ltd (CAM)<br/> CAM OFFICE BUILDING, 4# ANDAR, AV. WAI LONG,<br/> TAIPA, MACAU</p> <p><i>[PROJECT TITLE]</i><br/> "TO BE OPENED BY AUTHORIZED PERSONNEL ONLY"</p> </div> <p>Enclosed in the sealed outer envelope shall be inner envelopes (A) and (B):<br/> (A) Independent Sealed "Technical" Envelope (opaque and sealed with adhesive tape);<br/> (B) Independent Sealed "Commercial" Envelope (opaque and sealed with adhesive tape).</p> |
|--|

| <div style="display: flex; justify-content: center; align-items: center;"> <div style="margin-right: 10px;">↓</div> <div style="border: 1px solid black; padding: 5px;"> <p>(A)<br/><b>"Technical" Envelope:</b></p> </div> </div>  | <div style="display: flex; justify-content: center; align-items: center;"> <div style="margin-right: 10px;">↓</div> <div style="border: 1px solid black; padding: 5px;"> <p>(B)<br/><b>"Commercial" Envelope:</b></p> </div> </div>   |
|---|---|
| <p>a) The "Technical" Envelope shall include:</p> <ul style="list-style-type: none"> <li>i. Technical Proposal: ONE original and FOUR hard copies;</li> <li>ii. ONE CD with a PDF soft copy which <b>ONLY</b> includes technical information;</li> </ul> <p>b) <b>DO NOT</b> include any pricing or other related information;</p> <p>c) Each page of the original document shall be initialed by the legal representative(s) of the tenderer/bidder or the person(s) duly authorized by a written power of attorney included in the tender submission to bind the tenderer/bidder;</p> <p>d) Clearly mark "Technical" and the <i>[Project Title]</i> on the envelope;</p> <p>e) This envelope must be sealed with adhesive tape.</p> | <p>a) The "Commercial" Envelope shall include:</p> <ul style="list-style-type: none"> <li>i. Commercial Proposal: ONE original and FOUR hard copies;</li> <li>ii. ONE CD with a PDF soft copy which <b>ONLY</b> includes commercial information;</li> <li>iii. A bid security issued by a reputable bank, conforming to the requirements of the tender documents (cash or cheques are not accepted);</li> <li>iv. Completed Bid Form signed by the legal representative(s) of the tenderer/bidder or the person(s) duly authorized by a written power of attorney included in the tender submission to bind the tenderer/bidder, and stamped with the company stamp;</li> </ul> <p>b) Each page of the original document shall be initialed by the legal representative(s) of the tenderer/bidder or the person(s) duly authorized by a written power of attorney included in the tender submission to bind the tenderer/bidder;</p> <p>c) Clearly mark "Commercial" and the <i>[Project Title]</i> on the envelope;</p> <p>d) This envelope must be sealed with adhesive tape.</p> |

2. If the tender proposal is not packaged or marked as required (e.g. the technical part and the commercial part are found commingled in the same envelope or saved on the same CD, whether partially or in whole), the tender or bid may be rejected.
3. Clearly mark the cover of each document "ORIGINAL" or "COPY" as appropriate. In the event of any discrepancy between them, the original shall govern.
4. All tenderers and bidders must submit the documents with the contents and in the quantity required; otherwise, the tender or bid may be rejected.
5. Submission of documents by the tenderer or bidder must strictly comply with the timetable as specified in the relevant tender document. **Any late submission will NOT be accepted.**
6. All tenderers or bidders must strictly comply with all the stipulations, terms and conditions in the relevant tender document. Any incompliance may result in the tender or bid being rejected. This "*Reminder*" or its lack of mention of any stipulations, terms or conditions shall in no way excuse any such incompliance.
7. In case of any discrepancy between the texts in different languages of the tender document, the English version shall prevail.
8. Should there be any disputes relating to the tender document or the tender procedures or process, the interpretation and decision of the Macau International Airport Company Limited (CAM) shall be final and conclusive.

## 重要提示

### 1. 標書包裝要求:

|  |
|--|
| 外層信封須為不透光，用膠紙密封及註明:<br><b>Chairman of the Executive Committee<br/>Macau International Airport Co., Ltd (CAM)<br/>CAM OFFICE BUILDING, 4<sup>th</sup> FLOOR, AV. WAI LONG,<br/>TAIPA, MACAU</b><br><br>[項目英文名稱]<br><b>"TO BE OPENED BY AUTHORIZED PERSONNEL ONLY"</b> |
| 密封的外層信封內必須包含兩個獨立密封信封(A)及(B):<br>(A) 技術部份獨立密封信封(用膠紙密封的不透光信封);<br>(B) 商業部份獨立密封信封(用膠紙密封的不透光信封)。   |

| (A)<br>技術部份獨立信封:  |
|---|
| a) 技術部份信封內必須包括:<br>i. 技術建議書:一份正本和四份副本;<br>ii. 只包含技術建議書 PDF 電子副本之 CD 一張;<br>b) <b>切勿</b> 包含任何投標價格或相關內容;<br>c) 所有正本文件須由投標公司的法定代表人，或基於附同在投標文件內遞交的授權書而獲得適當授權以約束投標公司之人，於每一頁簡簽;<br>d) 信封面清楚標明“Technical” (“技術部份”) 之英文字樣及[項目名稱];<br>e) 本信封必須用膠紙密封。 |

| (B)<br>商業部份獨立信封:   |
|--|
| a) 商業部份信封內必須包括:<br>i. 商業建議書:一份正本和四份副本;<br>ii. 只包含商業建議書 PDF 電子副本之 CD 一張;<br>iii. 符合招標文件規定，由信譽良好的銀行發出之投標擔保(現金及支票恕不接受);<br>iv. 填妥之投標函表格(Bid Form)，並須由投標公司的法定代表人或基於附同在投標文件內遞交的授權書而獲得適當授權以約束投標公司之人簽署，及加蓋公司印章;<br>b) 所有正本文件須由投標公司的法定代表人，或基於附同在投標文件內遞交的授權書而獲得適當授權以約束投標公司之人，於每一頁簡簽;<br>c) 信封面清楚標明“Commercial” (“商業部份”) 之英文字樣及[項目名稱];<br>d) 本信封必須用膠紙密封。 |

- 若標書包裝或標示不符規定（例如技術部份和商業部份被發現全部或部份地混置於同一個信封或儲存在同一 CD 內），投標書可被拒絕接納。
- 每份文件之封面皆適當地清楚標明“ORIGINAL”（“正本”）或“COPY”（“副本”）之英文字樣。若正本與副本之間有任何差異，皆以正本之內容為準。
- 所有投標者必須確保所提交的文件數量和內容正確。若發現提交的文件數量或內容不符規定，投標書可被拒絕接納。
- 所有投標文件，必須嚴格遵守本招標文件規定的投標時間表提交。**任何逾時繳交之文件將不予接納。**
- 所有投標者必須嚴格遵守招標文件中的全部規定、條款和條件，任何不符規定的情況皆有可能導致投標書被拒絕接納。本“提示”對任何該等規定、條款或條件之提及或不提及，均不能作為任何該等不符規定情況的辯解。
- 若招標文件之不同語言版本之間出現任何差異，應以英文版本為準。
- 關於招標文件及程序若有任何爭議，澳門國際機場專營股份有限公司保留一切解釋及決定權利。

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## **Section - 1 Instruction to Bidders (“ITB”)**

### **1. Introduction**

- 1.1. The Employer, Macau International Airport Co., Ltd. (“CAM”) intends to request for proposal for **“Design and Build of the Waterproof Construction for Cargo Warehouse (RFQ-238)”**. Enquiries during office hours can be sent to:

Name: Macau International Airport Co., Ltd (CAM)

Address: CAM OFFICE BUILDING, 4<sup>th</sup> FLOOR, AV. WAI LONG, TAIPA, MACAU

Tel: +853-8598 8871

Fax: +853-2878 5465

- 1.2. The scope of the project shall be specified in the Statement of Project Requirements. Bidder shall strictly follow the scope for this bid.

- 1.3. The Bidder shall take into account:

1.3.1. During the Project execution and completion, the Bidder is the sole party to guarantee the quality, safety and effective operation of all work completed and equipment installed.

1.3.2. All the work within Macau International Airport should strictly follow the Macau S.A.R. Laws as well as Rules and Regulations of Macau International Airport.

1.3.3. The procurement of insurances according to Macau S.A.R. Laws as well as Rules and Regulations of Macau International Airport; (refer to Terms and Conditions of Contract for details).

1.3.4. The claims and penalties of the project which shall be stated in the Contract.

### **2. Eligibility of Bidders**

- 2.1. Eligible Bidders

- 1) This Invitation for Bids is open to all contractors from within the Macau Special Administrative Region ("Macau S.A.R.") and all countries/areas

which have regular trade relations with Macau S.A.R. (hereinafter called "the eligible source countries/areas"), except as provided hereinafter.

2) The Bidder itself (but not only its sub-contractor or partner (if any) which is not a bidder) shall have a minimum of three (3) job references of waterproof construction works, structural and civil work with project price of each over MOP1,000,000.00 within last five (5) years. The Bidder shall provide written evidence. Relevant work experience in the airport shall be an advantage.

3) The contractors may participate in the bids only if they are legally and financially autonomous.

2.2. If the bidder constitutes an unincorporated joint venture or grouping of two or more persons/companies, these persons/companies must designate one of themselves as the leading member who shall have authority to bind the bidder and each of these persons/companies.

2.3. It is within the Employer's sole discretion to decide the eligibility of the bidder.

### **3. Eligible Goods and Services**

3.1. All the on-site work shall be governed by Macau S.A.R. Laws as well as Rules and Regulations of Macau International Airport.

3.2. All materials and works and goods and services to be provided under the contract shall have their origin in eligible source countries/areas.

### **4. Cost of Bid**

4.1. The Bidder shall bear all costs associated with the preparation and submission of its bid, and the Employer will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bid process.

### **5. Content of Tender Document**

5.1. The goods, materials, works and services required, bidding procedures and contract terms are prescribed in the tender document. The tender document is written in English. The content of the tender document will be separated into seven sections as follows:



Section 1- Instruction to Bidders (“ITB”)

Section 2- Terms and Conditions of Contract (“TCC”)

Section 3- Attachments

Section 4- Work Schedule

Section 5- Statement of Project Requirements and Drawings

Section 6- Bill of Quantities (“BQ”)

Section 7 -Site Rules & Traffic Rules

- 5.2. The Bidder is expected to examine all instructions, forms, terms and specifications in the tender document. Failure to furnish all information required by the tender document or submission of a bid not substantially responsive to the tender document in every respect will be at the Bidder's risk and may result in the rejection of its bid.

## **6. Clarification of Tender Document**

- 6.1. A prospective Bidder requiring any clarification of the tender document may notify the Employer in writing. The Employer, if considering it appropriate, will respond in writing to a request for clarification of the tender document which the Employer receives on or before the deadline as described in the aforementioned Tender Timetable. The Employer's response (without identifying the source of inquiry) will be published on the website [www.camacau.com](http://www.camacau.com).

## **7. Amendment of Tender Document**

- 7.1. Prior to the deadline for submission of bids, the Employer, for any reason, whether at its own initiative or in response to a request for clarification by a prospective Bidder, may amend the tender document.
- 7.2. The amendments as are published from time to time on the website [www.camacau.com](http://www.camacau.com) and will be binding on the bidders and form part of the tender document.
- 7.3. In order to afford prospective bidders reasonable time in which to take the amendment into account in preparing their bids, the Employer, at its discretion, may extend the deadline for the submission of bids.

## **8. Site Visit**

- 8.1. During the tender period, Bidder can request for site visit of the installation areas as well as the construction areas for understanding all the information needed for tender document.
- 8.2. The request shall be raised in writing on or before the deadline as described in the aforementioned Tender Timetable.
- 8.3. Bidder shall provide ID copy of the assigned personnel for the site visit together with the request.
- 8.4. Site visit will take place on the date and at the time as described in the aforementioned Tender Timetable. Meeting Point shall be at CAM Office Building G/F, Macau International Airport.

## **9. Project Team Structure and Schedule**

- 9.1. Bidder shall provide the Project team structure with reporting hierarchy, sole responsible personnel and contact person in the bid.
- 9.2. If subcontractor(s) involved, Bidder shall identify clearly which areas the subcontractor(s) is responsible for and contact point.
- 9.3. Bidder shall provide, in the tender proposal, project schedule together with the bid document expressed in Gantt chart format with start, end, and duration of the tasks, milestones and risk assessment.

## **10. Design**

- 10.1. Bidder shall provide preliminary design specified in the Statement of Project Requirements in the tender document.

## **11. Language of Bid**

- 11.1. The bid prepared by the Bidder, as well as all correspondence and documents relating to the bid exchanged by the Bidder and the Employer shall be written in English.

## **12. Documents Comprising the Bid**

Please see especially ITB Clause 21 below.

### **13. Compilation of Bid**

13.1. The Bidder shall complete the Bid Form and other stipulated contents furnished in the tender document.

### **14. Bid Prices**

14.1. The Bidder shall indicate on the appropriate Bill of Quantities and Schedules the unit prices, brand, model and specification, quantity and total bid price etc. (where applicable) of the material, construction works, goods and services it proposes to supply under the contract. The total bid price shall not include any items beyond the requirement of the tender document; otherwise, the offer on such items will not be deducted during the evaluation (but such items may still be excluded with the corresponding prices deducted from the total price at the Employer's sole discretion in case of the award of contract).

14.2. The total bid price shall not omit any items or quantities required in the tender document issued by the Employer. The value of any items or quantities which are omitted or not priced in the proposed BQ shall be deemed to be included in the total bid price. For the avoidance of doubt, in the event that the Bidder does not propose sufficient quantities of any items or does not price any of them in the proposed BQ as required for the supply and completion of all goods, materials, works and services according to the requirements in all aspects as provided by the tender document issued by the Employer, then the Bidder, if eventually awarded the contract, shall nonetheless supply and complete all and any items of goods, materials, works and services in sufficient quantities, even if omitted or not priced in the proposed BQ, in order to fulfil the requirements in all aspects as provided by the tender document issued by the Employer, and all the costs, expenses and profits necessary for this Bidder's proper execution and completion of all items and quantities which are omitted or not priced in the proposed BQ shall be deemed to have already been included in the total bid price.

14.3. The Employer may, at its sole discretion, request the Bidder to confirm in writing to the effect of the previous paragraph. If no such confirmation is given as required, the bid may be rejected. Nevertheless, for the avoidance of doubt, if the Bidder is

awarded the contract without having given or been requested to give such confirmation, ITB Clause 14.2 above shall still be contractually binding on this Bidder.

## **15. Bid Currencies**

15.1. The prices shall be quoted in Macau Patacas (MOP) unless specified or permitted otherwise.

## **16. Documents Establishing Bidder's Eligibility and Qualifications**

16.1. The Bidder shall furnish, as part of its bid, documents establishing the Bidder's eligibility to bid and its qualifications to perform the contract if its bid is accepted. If the Bidder is a Joint Venture or other unincorporated grouping of two or more persons/companies, the respective Qualification Documents of each of these persons/companies together with the Joint Venture Agreement (or the agreement for the grouping) shall be submitted while these persons/companies shall indicate the leading member. Otherwise, the bid may be rejected.

16.2. The documentary evidence of the Bidder's eligibility to bid shall establish that the Bidder, at the time of submission of its bid, fulfills in all respects the requirements as defined under ITB Clause 2.

16.3. The documentary evidence of the Bidder's qualifications to perform the contract if its bid is accepted shall establish:

- 1) that, the Bidder has the financial, technical and construction capability necessary to perform the contract;
- 2) that, the Bidder meets the qualification criteria listed in the Statement of Project Requirements.

16.4. The Bidder shall also furnish, as part of its bid:

- 1) the bank reference letter issued within three months prior to the deadline for the submission of bids in original or its copy;
- 2) copies of valid business registration;
- 3) other documentary evidence of the Bidder's qualifications required in the tender document.

## **17. Documents Establishing Provision's Eligibility and Conformity to Tender Document**

17.1. The Bidder shall furnish, as part of its bid, documents establishing the eligibility and conformity to the tender document of all works, materials, goods and services which the Bidder proposes to supply under the contract.

17.2. The documentary evidence of conformity of the provision to the tender document may be in the form of literature, drawings and data, and shall consist of:

- 1) a detailed description of the essential technical and performance characteristics of works, materials, goods and services; and
- 2) a list, giving full particulars, including available sources of spare parts, special tools, etc., necessary for the proper and continuing functioning of the goods, following commencement of the use of the goods by the Employer; and
- 3) an item-by-item commentary on the Statement of Project Requirements of the tender document demonstrating substantial responsiveness of the works, materials, goods and services to those requirements, and a statement of deviations and exceptions to the provisions of the Statement of Project Requirements. Particularly, to those requirements with specific parameters, the bidder shall furnish specific parameter value of offered goods, materials, services and works; and
- 4) a list of support offered during the maintenance period; and

17.3. For purposes of the commentary to be furnished pursuant to ITB Clause 17.2 3) above, the Bidder shall note that standards for workmanship, material and equipment, as well as references to brand names or catalogue numbers designated in the Statement of Project Requirements of the tender document, are intended to be descriptive only and not restrictive. The Bidder may substitute alternative standards, brand names, and/or catalogue numbers in its bid, provided that the substitutions ensure substantial equivalence to those designated in the tender document. Nevertheless, for the avoidance of doubt, the award of contract to any Bidder whose bid includes any proposals of such substitutions does not imply that the substitutions have been approved by the Employer. The substitutions shall still be

subject to prior approval by the Employer and/or the Supervision during the execution of the Works. The Contractor shall have sole responsibility for ensuring at its own costs that all and any substitutions applied are accepted by the Employer at its sole discretion to be substantially equivalent to what is designated in the tender document issued by the Employer.

## **18. Bid Security**

18.1. The Bidder shall furnish, as part of its bid, a bid security in the amount of Macau Patacas Two Hundred Thousand (MOP\$200,000.00).

18.2. The bid security is required to protect the Employer against the risk of Bidder's conduct which would warrant the security's forfeiture, pursuant to ITB Clause 18.5.

18.3. The bid security shall be denominated in the currency of the bid or in another currency acceptable to the Employer, and shall be an irrevocable bank guarantee issued by a reputable bank located in MACAU S.A.R. or abroad, in the form provided in the tender document and valid for the period of one hundred and eighty (180) calendar days from the deadline for the submission of bids.

18.4. Any bid not secured in accordance with ITB Clauses 18.1 to 18.3 may be rejected as substantially non-responsive, pursuant to ITB Clause 26.

18.5. The bid security may be forfeited:

- 1) if a Bidder withdraws or unilaterally modifies its bid during the period of bid validity specified in the tender document; or
- 2) if the successful Bidder fails to sign the Contract Form in accordance with ITB Clause 34; or
- 3) if the successful Bidder fails to furnish performance security in accordance with ITB Clause 35.

## **19. Period of Validity of Bids**

19.1. Bids shall remain valid for the period of one hundred and eighty (180) calendar days from the deadline for the submission of bids. A bid valid for a shorter period shall be rejected as substantially non-responsive.

19.2. In exceptional circumstances, prior to the expiry of the original bid validity period, the Employer may request the Bidder to extend the period of validity. The request

and the responses thereto shall be made in writing. A Bidder may refuse the request without its bid security forfeited. A Bidder agreeing to the request will not be required nor permitted to modify its bid, but will be required to extend the validity of its Bid Security correspondingly. The provisions of ITB Clause 18 regarding forfeiture of Bid Security shall continue to apply during the extended period of bid validity.

## **20. Format and Signing of Bids**

- 20.1. The Bidder shall submit one (1) original and four (4) copies (and one softcopy in PDF format) of the bid, clearly marking each "ORIGINAL" or "COPY" of bid, as appropriate. In the event of any discrepancy between them, the original shall govern.
- 20.2. The original bid shall be typed or written in indelible ink and shall be signed by the legal representative of the Bidder or a person or persons duly authorized to bind the Bidder to the contract. The authorization shall be indicated by written power of attorney accompanying the bid. All pages of the bid shall be initialed by the person or persons signing the bid. The copies of bid can be the photocopies of the original bid.
- 20.3. Any interlineation, erasures or overwriting shall be valid only if they are initialed by the person or persons signing the bid.
- 20.4. If the bidder constitutes an unincorporated joint venture or grouping of two or more persons/companies, the bid shall be signed by the legal representative of, or such person or persons as duly authorized by a written power of attorney enclosed in the bid to bind, each and every member of the joint venture/grouping, and the paragraphs 20.2 and 20.3 of this Clause are to be understood accordingly.

## **21. Sealing and Marking of Bids**

- 21.1. The Bidder shall separate the Commercial part (the original and the hard and soft copies) from the Technical part of its proposal. The Technical part and the Commercial part shall be put into different opaque envelopes, sealed with adhesive tape and clearly marked "Technical" and "Commercial" respectively as appropriate. These (inner) envelopes shall then be put into an outer opaque envelope sealed with adhesive tape.

- (a) The “Commercial” envelope shall include the original and the hard and soft copies of the following (pricing information must be put in the opaque sealed “Commercial” envelope only):
- i) The Bid Form (Section 3 – Attachments, 1. Bid Form) duly completed;
  - ii) The Bid Security;
  - iii) Bill of Quantities duly completed;
  - iv) Statement of Compliance with and deviation (if any) from the commercial terms and requirements in the tender document.
- (b) The “Technical” envelope shall include the original and the hard and soft copies of the following (no pricing information can be included in the “Technical” envelope):
- i) Company Background;
  - ii) Eligibility and Qualification;
  - iii) Technical Proposal;
  - iv) Project Team;
  - v) Statement of Compliance with and deviation (if any) from the technical terms and requirements in the tender document
  - vi) Others.

Note: Please refer to Section 3 – Attachments, 9 Tender Checklist, for details regarding the respective documents to be included in the technical & commercial proposals referred to above.

21.2. The inner and outer envelopes shall:

1) be addressed to the address:

Name: Macau International Airport Co., Ltd (CAM)

Address: CAM OFFICE BUILDING, 4<sup>th</sup> FLOOR AV. WAI LONG,  
TAIPA, MACAU

2) bear the Project name, **“Design and Build of the Waterproof Construction for Cargo Warehouse (RFQ-238)”** and the words "TO BE OPENED BY AUTHORIZED PERSONNEL ONLY".

21.3. The inner envelopes shall also indicate the name and address of the Bidder.



21.4.If the outer envelope is not sealed and marked as required by ITB Clauses 21.1 and 21.2, the Employer will assume no responsibility for the bid's misplacement or premature opening.

21.5.If any pricing information (whether in hard or soft copies) in the bidder's proposal is not put in the opaque Commercial envelope sealed with adhesive tape and clearly marked according to ITB Clause 21.1 above, the bid may be considered substantially non-responsive and may be rejected by the tender opening committee or the Bid Evaluation Committee.

## **22. Deadline for Submission of Bids**

22.1.Bids must be received by the Employer at the address specified under ITB Clause 21.2 no later than the deadline as described in the aforementioned Tender Timetable (Macau Time).

22.2.The Employer may, at its discretion, extend this deadline for the submission of bids by amending the tender document in accordance with ITB Clause 7, in which case all rights and obligations of the Employer and Bidders previously subject to the deadline will thereafter be subject to the deadline as extended.

22.3.In the case that Typhoon Warning Signal No.8 or above or Rainstorm Signal is hoisted, issued and/or effective within two hours before the deadline for the submission of bids, the deadline shall automatically be postponed to the same time of the immediately succeeding business day.

## **23. Late Bids**

23.1.Any bid received by the Employer after the deadline for submission of bids, pursuant to ITB Clause 22, will be rejected.

## **24. Modification and Withdrawal of Bids**

24.1.The Bidder may modify or withdraw its bid after the bid's submission, provided that written notice of the modification from the Bidder, including substitution or withdrawal of the bids, is received by the Employer prior to the deadline for submission of bids.

- 24.2. The Bidder's modification or withdrawal notice shall be prepared, sealed, marked and dispatched in accordance with the provisions of ITB Clause 21.
- 24.3. No bid may be modified after the deadline for submission of bids.
- 24.4. No bid may be withdrawn in the interval between the deadline for submission of bids and the expiration of the period of bid validity specified by the Bidder on the Bid Form. Withdrawal of a bid during this interval may result in the forfeiture of the bid security, pursuant to ITB Clause 18.5.

## **25. Bid Evaluation Committee**

- 25.1. The bid evaluation will be taken charge by the Bid Evaluation Committee appointed by the Employer.
- 25.2. During evaluation of the bids, the Bid Evaluation Committee may, at its discretion, ask the Bidder for a clarification of its bid. The request for clarification and the response shall be in writing, and no change in the prices or substance of the bid shall be sought, offered or permitted.

## **26. Preliminary Examination**

- 26.1. The Bid Evaluation Committee will examine the bids to determine whether they are complete, whether the bids are generally in order, whether required securities have been furnished, whether the documents have been properly signed, and whether any computational errors have been made.
- 26.2. If there is a discrepancy between the prices in the tender proposal, the Employer/ the Bid Evaluation Committee may decide at its sole discretion which price(s) to prevail and/or to correct the price(s) as it thinks fit. If there is a discrepancy between words and figures, the amount in words will prevail. If the bidder does not accept the decision by the Employer/the Bid Evaluation Committee or its correction of the errors, the bid will be rejected.
- 26.3. The Bid Evaluation Committee may waive any minor informality, nonconformity, or irregularity in a bid which does not constitute a material deviation.
- 26.4. The Bid Evaluation Committee will determine the substantial responsiveness of each bid to the tender document. For purposes of these Clauses, a substantially responsive bid is one which conforms to the terms and conditions of the tender

document without material deviations. Deviation from, or objections or reservations to critical provisions, such as those concerning Bid Security, Applicable Law, Taxes and Duties, may be deemed to be a material deviation. The Bid Evaluation Committee's determination of a bid's responsiveness is to be based on the true and correct contents of the bid itself without recourse to extrinsic evidence, unless the bid contains untrue and incorrect contents. If a bid is not substantially responsive, it will be rejected and may not subsequently be made responsive by the Bidder having corrected or withdrawn the non-conforming deviation or reservation.

26.5. Among others, the bid may be rejected as non-responsive, if it is found having any of the following:

- 1) The bid is not accompanied with a bid security, or, the submitted bid security is of a lower amount than required, or of shorter validity than required, or not conforming to the requirements of the tender document in its form or issuing bank.
- 2) The Bid Form or Qualification Documents are not submitted or not in compliance with the requirements of the tender document.
- 3) The bid has not been signed by the Bidder's Legal Representative, or by the person or persons with a Power of Attorney issued by the said Legal Representative.
- 4) The bid validity offered by the Bidder is shorter than that stipulated in the tender document.
- 5) The bid does not meet the requirements for delivery, shipment, and/or transportation of goods or services stipulated in the tender document.
- 6) The bid does not meet, whether in technical or commercial aspects, other main clauses stipulated in the tender document.

## **27. Evaluation and Comparison of Bids**

27.1. The Bid Evaluation Committee's evaluation of a bid will take into account the following factors in accordance with the tender document:

### **I. Technical (40/100)**

#### **1) Company Capability & Past Performance (30%)**

- i. Adequacy of company resources (also in view of the committed work load) (30%)
- ii. Backup and support in local and region (30%)
- iii. Experience in the industry, particularly in similar job reference; Referee's view (30%)
- iv. Other merits (10%)

## **2) Understanding of Requirements & Constraints (30%)**

- i. Understanding of key issues, requirements, constraints and opportunities in the refinement of the project framework (20%)
- ii. Appropriateness of programme logic/duration (15%)
- iii. Appropriateness of the proposed methodology and work plan (content, duration, phasing, interrelations and milestones particularly tailor made to project condition) to address project conditions; demonstration of compatibility of the methodologies with the proposed work plan (20%)
- iv. Compliance to requirements; achievement of the task objectives/deliverables within the timeframe (15%)
- v. The awareness of operational safety, quality and keeping airport operation uninterrupted (20%)
- vi. Other merits (10%)

## **3) Experience and Structure of Proposed Project Team (30%)**

- i. Responsibilities and degree of involvement of team members; organization chart to illustrate the structure of the work team and its interfacing with project stakeholders (full time Project Manager dedicated to the project is preferred) (30%)
- ii. Relevant professional expertise, experience, knowledge and qualifications of the project team members, particularly in the waterproof construction, structural or civil work (30%)
- iii. Adequacy of professional and technical manpower input (30%)
- iv. Other merits (10%)

## **4) Quality of Submission (10%)**

- i. Adequacy of the presented information (70%)
- ii. Conciseness and logical presentation of the submission (20%)
- iii. Other merits (10%)

## **II. Commercial (12/100)**

### **1) Commercial Vetting (100%)**

- i. Adequate insurance and compliance to conditions of contract (60%)
- ii. Reasonableness of the price breakdown (30%)
- iii. Other merits (10%)

## **III. Pricing (48/100)**

### **28. Contacting the Employer**

28.1. With exception for Clause 25.2, no Bidder shall contact the Employer and the Bid Evaluation Committee on any matter relating to its bid, from the deadline for submission of bids to the time the contract is awarded.

28.2. Any effort by a Bidder to influence the Employer and the Bid Evaluation Committee in their decisions on bid evaluation or contract award may result in the rejection of the Bidder's bid.

### **29. Award Criteria**

29.1. Subject to ITB Clause 32, the Employer will award the contract to the successful Bidder whose bid has been determined to be substantially responsive and has been determined through comprehensive evaluation method to be the overall most advantageous bid at the sole discretion of CAM, provided further that the Bidder is determined to be qualified to perform the Contract satisfactorily at the sole discretion of CAM.

### **30. Right to Vary Quantities at Time of Award and After Award**

30.1. The Employer reserves the right at the time of contract award and after contract award to increase or decrease the quantity of works, materials, goods and services originally specified in the Statement of Project Requirements and BQ without any change in unit price or other terms and conditions, but with adjustment determined by the Employer to the total price of the contract to be

awarded or already awarded, as the case may be, according to the corresponding unit price.

30.2. For the avoidance of doubt, the Contractor shall have no right to claim for loss of profit, inflation or currency fluctuation, or to terminate the Contract, due to quantities variation as determined by the Employer.

### **31. Publication on Website**

31.1. Announcement of this bidding notice will be publicized on [www.camacau.com](http://www.camacau.com) (hereinafter referred to as “the website”).

### **32. Right to Accept any Bid and to Reject any or All Bids**

32.1. Bidders shall accept that it is the Employer’s intention not to create any contractual relations in this invitation to bid until the award of the Contract pursuant to ITB Clause 33, and the Employer is not bound to accept the lowest or any bid it may receive and will not defray any costs incurred in bidding. Notwithstanding anything to the contrary, the Employer reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids at its sole discretion.

### **33. Notification of Award**

33.1. Once the successful Bidder has been determined, the Employer will issue a Notification of Award to the Successful Bidder.

33.2. The Notification of Award will constitute the formation of the Contract.

### **34. Signing of Contract Form**

34.1. Within forty-five (45) days after the issuance of Notification of Award, written Contract Form shall be signed in accordance with the tender document and the bid of the successful bidder. The successful bidder shall not sign any agreements against the substantial content of the contract.

### **35. Performance Security**

35.1. Within thirty (30) days of the receipt of notification of award from the Employer, the successful Bidder shall furnish the performance security in accordance with the

Terms and Conditions of Contract in the tender document, in the Performance Security Form provided in the tender document or in another form acceptable to the Employer.

35.2. Failure of the successful Bidder to comply with the requirement of ITB Clause 34 or ITB Clause 35.1 shall constitute sufficient grounds for the annulment of the award and forfeiture of the bid security, in which event the Employer may make the award to another Bidder, or call for new bids.

## **Section - 2 Terms and Conditions of Contract (“TCC”)**

### **1. Definitions**

1.1. In this Contract, the following terms shall be interpreted as indicated:

- 1) "The Contract" means the agreement entered into between the Employer and Contractor, including the Contract Form, the Notification of Award, the Bid Form, these Terms and Conditions of Contract, the Bill of Quantities, the Statement of Project Requirements, the Drawings, the Appendices, the Project Schedule, the Instruction to Bidders, and the further documents (if any) which are listed in the Contract Form or in the Notification of Award.
- 2) "The Contract Price" means the price payable to the Contractor under the Contract for the full and proper performance of its contractual obligations.
- 3) “Design” refers to the plan of installation of Goods or construction of the work and structure.
- 4) "The Goods" means all of the equipment, machinery, and/or other materials which the Contractor is required to supply to the Employer under the Contract.
- 5) “Works” mean works and services to be carried out by the Contractor under the Contract.
- 6) "The Incidental Services" means those services ancillary to the supply of the Goods and Works, such as transportation and insurance, and any other incidental services, such as installation, commissioning, provision of technical assistance, training, and other such obligations of the Contractor covered under the Contract.
- 7) "TCC" means the Terms and Conditions of Contract contained in this section.
- 8) "The Employer" or “the Client” means the organization purchasing the Goods, Works and Services.
- 9) "The Contractor" means the individual or firm supplying the Goods, Works and Services under this Contract.
- 10) "The Project Site" means the location(s) where the Goods, Works and material are to be installed and/or operated.
- 11) "Day" means calendar day.



- 12) “Supervision” or “Supervisory Engineer” means the entity or person representing CAM in managing the project and shall include the Supervisor and Quality Controller and their successors and permitted assignees.

## **2. Application**

- 2.1. These Terms and Conditions shall apply to the extent that they are not superseded by provisions of a higher rank in other parts of the Contract.

## **3. Standards**

- 3.1. The design, works, materials, goods and services supplied under this Contract shall conform to the standards mentioned in the Statement of Project Requirements, and, when no applicable standard is mentioned, to the authoritative standards appropriate to the Goods' country of origin. Such standards shall be the latest issued by the concerned institution.
- 3.2. All measurements shall be the measuring unit officially published by the government of the Macau S.A.R., unless otherwise specified in the Statement of Project Requirements.

## **4. Use of Contract Documents and Information**

- 4.1. The Contractor shall not, without the Employer's prior written consent, disclose the Contract, or any provision thereof, or any specification, plan, drawing, pattern, sample, or information furnished by or on behalf of the Employer in connection therewith, to any person other than a person employed by the Contractor in the performance of the Contract. Disclosure to any such employed person shall be made in confidence and shall extend only so far as may be necessary for purposes of such Performance.
- 4.2. The Contractor shall not, without the Employer's prior written consent, make use of any document or information enumerated in TCC Clause 4.1 except for purposes of performing the Contract.
- 4.3. Any document, other than the Contract itself, enumerated in TCC Clause 4.1 shall remain the property of the Employer and shall be returned (including all copies) to

the Employer on completion of the Contractor's performance under the Contract if so required by the Employer.

## **5. Intellectual Property Rights**

5.1. The Contractor shall indemnify the Employer against all third-party claims of infringement of patent, trademark, copyright or other intellectual property rights arising from use of the Design and Goods and Works or any part thereof in the Macau S.A.R..

## **6. Performance Security**

6.1. Within thirty (30) days of receipt of the notification of Contract award, the Contractor shall furnish to the Employer the performance security of ten percent (10%) of total Contract Price.

6.2. The proceeds of the performance security shall be payable to the Employer as compensation for any loss resulting from the Contractor's failure to complete its obligations under the Contract.

6.3. The performance security shall be denominated in the currency of the Contract, or in a currency acceptable to the Employer, and shall be in the form of an irrevocable bank guarantee issued by:

- (i) a reputable bank located in the Macau S.A.R., or,
- (ii) a reputable bank abroad acceptable to the Employer through a reputable Bank located in the Macau S.A.R.,

and in the form provided in the tender document or another form acceptable to the Employer.

6.4. The performance security will be discharged by the Employer and returned to the Contractor not later than thirty (30) days after the issue of the Provisional Acceptance Certificate after the practical completion of the construction works to the satisfaction of the Employer.

## **7. Technical Literature, technical specification and Other Project Materials**

- 7.1. The Contractor shall provide revised or final Design specified in the Statement of Project Requirements after contract award.
- 7.2. The Employer may make any comments on the submissions mentioned above. If any of the submissions is not in accordance with the Statement of Project Requirements or the Contract in any way, the Employer may reject the submission.
- 7.3. The Contractor shall promptly improve and re-submit all the relevant submissions, taking these comments into account as necessary.

## **8. Inspections and Tests**

- 8.1. The Employer or its representative shall have the right to inspect and/or to test the Goods and Materials and the Works carried out by the Contractor to confirm their conformity to the Contract specifications at no extra cost to the Employer.
- 8.2. Should any inspected or tested Goods or Materials or Works fail to conform to the requirements specified in this Contract, the Employer may reject the Goods and Materials and Works, and the Contractor shall either replace the rejected Goods and Materials and Works or make alterations necessary to meet specification requirements free of cost to the Employer.
- 8.3. If, during the warranty period specified in TCC Clause 15, it is found that the quality or specifications of the Goods or Materials or Works are not in conformity with the Contract or if the Goods or Materials or Works are proven to be defective for any reason, including latent defects or the use of unsuitable materials, the Employer shall promptly notify the Contractor of the existence of a claim.
- 8.4. Nothing in TCC Clause 8 shall in any way release the Contractor from any warranty or other obligations under this Contract.
- 8.5. Before the Provisional Acceptance of the work, the Contractor is obligated to perform tests as required by the Employer for quality control.

## **9. Terms of Shipment**

- 9.1 The Contractor shall be responsible at its own expenses for shipping/transporting the Goods and any other materials required to the Project Site.
- 9.2 If temporary storage place for the Goods and Materials is required, the Contractor shall be responsible for arranging the temporary storage with relevant insurance during the storage periods at its own cost. The Contractor shall also be responsible at its own cost for transportation required to and from the storage place and the Project Site.
- 9.3 The Contractor shall not ship/transport more than the contracted quantity or weight. The Employer shall not be responsible for any cost or other consequences arising from shipment/transportation of excess quantities or weight.
- 9.4 The Contractor shall ensure the packing provides enough protection for the Goods to be shipped and shall ensure the Goods will not be damaged in transit.

## **10. Delivery and Documents**

- 10.1. The Contractor shall notify the Employer by fax of the full details of document/material delivery, including the technical document, method statement, shop drawings, description of material etc.

## **11. Insurance**

### **11.1. Third Party Liability Insurance**

- (1) Without limiting the Contractor's obligations and responsibilities under the Contract, the Contractor shall procure and maintain in accordance with the Laws of Macau S.A.R. and the Rules and Regulations of Macau International Airport before the date for commencement of the Contract Period, in the joint names of Macau International Airport Company Limited, the Airport Operation Service Provider (currently "ADA - Administration of Airports Limited", hereafter "ADA"), the Contractor, and the Contractor's sub-contractors of any tier (if sub-contractors are to be engaged) an insurance policy effective from the date for commencement of the Contract Period until the date of the issue of the Final Acceptance Certificate after the completion

of Defects Liability Period and the Contractor's total completion of its obligations to the satisfaction of the Employer, against any damage, loss or injury which may occur to any property including that of the Employer (other than the Works), or to any person by or arising out of or in consequence of the execution of the Whole of the Works or in the carrying out of the Contract.

- (2) The insurance policies must include a cross liability clause jointly covering Macau International Airport, Macau International Airport Company Limited, the Airport Operation Service Provider (currently "ADA"), the Contractor, and the Contractor's sub-contractors of any tier (if sub-contractors are to be engaged). A waiver of subrogation against all insured parties has to be included in parallel as well.
- (3) Such insurance shall be effected with an insurer for a policy limit of not less than MOP20,000,000 for any one accident and unlimited in the aggregate for the period of insurance.
- (4) The insurance shall include an extension covering all Employer's properties being held under the control, care and custody of the Contractor, with a policy limit of MOP\$20,000,000 for any one accident and in the aggregate for the period of insurance.
- (5) If the Contractor considers the abovementioned limit of indemnity for any one accident to be inadequate to cover these contractual obligations he is at liberty to take out a policy with an increased limit of indemnity but any additional premium or differential in premium shall be at his own expenses.
- (6) All insurances as required under these Conditions are to be taken out with a company to be approved in writing by the Employer and / or its appointed Insurance Consultant.
- (7) The Contractor shall submit the originals or certified true copies of the insurance policy or policies or the corresponding insurance certificate(s) together with the premium receipt to the Employer and / or its appointed Insurance Consultant for approval prior to commencement of the Works. As and when he is reasonably required so to do by the Employer the Contractor shall produce and shall cause any his sub-contractor(s) as may be applicable

and their respective sub-contractor(s) to produce for inspection by the Employer documentary evidence that the insurances required by these Conditions are properly maintained, but on any occasion the Employer may require to have produced for his inspection the policy or policies and receipts in question.

- (8) Should the Contractor make default in insuring or in continuing to insure as provided in these Conditions the Employer may himself insure against any risk with respect to which the default shall have occurred and may deduct a sum or sums equivalent to the amount paid or payable in respect of premiums from any monies due to the Contractor. In respect of the period during which the aforementioned default shall have occurred, the Supervisory Engineer shall deduct from the Contract Sum such amount as bears the same proportion to the reasonable allowance for effecting the relevant insurance as does the period of default to the Contract Period.
- (9) The Contractor and his sub-contractors shall bear the cost of any excess that become due, in the event of a claim made on any of the policies, as listed in the foregoing clauses.
- (10) The Contractor shall immediately inform the Employer in writing if such insurance ceases to be available or otherwise is not maintained in accordance with this Clause or for any reason becomes void or unenforceable.

#### 11.2. Insurance of the Works against Fire, etc.

- (1) Without limiting the Contractor's obligations and responsibilities under the Contract, the Contractor shall procure and maintain in accordance with the Laws of Macau S.A.R. and the Rules and Regulations of Macau International Airport before the date of commencement of the Contract Period, in the joint names of Macau International Airport Company Limited, the Airport Operation Service Provider (currently "ADA"), the Contractor, and the Contractor's sub-contractors of any tier (if sub-contractors are to be engaged) an insurance policy effective from the date for commencement of the Contract Period until the date of the issue of the Final Acceptance Certificate after the completion of Defects Liability Period and the Contractor's total completion

of its obligations to the satisfaction of the Employer, against loss or damage by fire, lightning, explosion, storm, typhoon, flood, bursting or overflowing of water tanks, apparatus or pipes, earthquake, aircraft and other aerial devices or articles dropped therefrom, riot and civil commotion for the full value of all work executed and all unfixed materials and goods delivered to, placed on or adjacent to the Works plus 4% to cover professional fees but excluding plant, tools and equipment owned or hired by the Contractor or any sub-contractor.

- (2) In addition to the above the Contractor shall arrange specific cover for removal of debris so that in the event of serious loss the site may be cleared without reducing the amount available for reconstruction. The amount of such cover shall be at the discretion of the Contractor but shall not be less than 1% of the Contract Sum.
- (3) All insurances as required under these Conditions are to be taken out with a company to be approved in writing by the Employer and / or its appointed Insurance Consultant.
- (4) The Contractor shall submit the originals or certified true copies of the insurance policy or policies or the corresponding insurance certificate(s) together with the premium receipt to the Employer and / or its appointed Insurance Consultant for approval prior to commencement of the Works. As and when he is reasonably required so to do by the Employer the Contractor shall produce and shall cause any his sub-contractor(s) as may be applicable and their respective sub-contractor(s) to produce for inspection by the Employer documentary evidence that the insurances required by these Conditions are properly maintained, but on any occasion the Employer may require to have produced for his inspection the policy or policies and receipts in question.
- (5) Should the Contractor make default in insuring or in continuing to insure as provided in these Conditions the Employer may himself insure against any risk with respect to which the default shall have occurred and may deduct a sum or sums equivalent to the amount paid or payable in respect of premiums from any monies due to the Contractor. In respect of the period during which

the aforementioned default shall have occurred, the Supervisory Engineer shall deduct from the Contract Sum such amount as bears the same proportion to the reasonable allowance for effecting the relevant insurance as does the period of default to the Contract Period.

- (6) The Contractor and his sub-contractors shall bear the cost of any excess that become due, in the event of a claim made on any of the policies, as listed in the foregoing clauses.
- (7) The Contractor shall immediately inform the Employer in writing if such insurance ceases to be available or otherwise is not maintained in accordance with this Clause or for any reason becomes void or unenforceable.

#### 11.3. Employees Compensation Insurance

- (1) The Contractor is solely liable for accidents or injuries to workpeople.
- (2) The Employer shall not be liable for or in respect for any damages or compensation payable under any statute, ordinance, in respect of or in consequence of any accident or injury to any employee or other person in the employment of the Contractor or his sub-contractors and the Contractor shall indemnify and keep indemnified the Employer against all such damages or compensation and against all claims, demands, proceedings, costs, charges and expenses whatsoever in respect thereof or in relation thereto.
- (3) Without limiting the Contractor's obligations and responsibilities under the Contract, the Contractor shall procure and maintain in accordance with the Laws of Macau S.A.R. and the Rules and Regulations of Macau International Airport before the date for commencement of the Contract Period, in the joint names of Macau International Airport Company Limited, the Airport Operation Service Provider (currently "ADA"), the Contractor, and the Contractor's sub-contractors of any tier (if sub-contractors are to be engaged), an insurance policy effective from the date for commencement of the Contract Period until the date of the issue of the Final Acceptance Certificate after the completion of Defects Liability Period and the Contractor's total completion of its obligations to the satisfaction of the Employer, against all liabilities to



pay damages or compensation as aforesaid in respect of all employees and other persons who may be employed on the Works.

- (4) The policy may exclude all liabilities to the direct employees of Macau International Airport Company Limited and the Airport Operation Service Provider (currently “ADA”).
- (5) All insurances as required under these Conditions are to be taken out with a company to be approved in writing by the Employer and / or its appointed Insurance Consultant.
- (6) The Contractor shall submit the originals or certified true copies of the insurance policy or policies or the corresponding insurance certificate(s) together with the premium receipt to the Employer and / or its appointed Insurance Consultant for approval prior to commencement of the Works. As and when he is reasonably required so to do by the Employer the Contractor shall produce and shall cause any his sub-contractor(s) as may be applicable and their respective sub-contractor(s) to produce for inspection by the Employer documentary evidence that the insurances required by these Conditions are properly maintained, but on any occasion the Employer may require to have produced for his inspection the policy or policies and receipts in question.
- (7) Should the Contractor make default in insuring or in continuing to insure as provided in these Conditions the Employer may himself insure against any risk with respect to which the default shall have occurred and may deduct a sum or sums equivalent to the amount paid or payable in respect of premiums from any monies due to the Contractor. In respect of the period during which the aforementioned default shall have occurred, the Supervisory Engineer shall deduct from the Contract Sum such amount as bears the same proportion to the reasonable allowance for effecting the relevant insurance as does the period of default to the Contract Period.
- (8) The Contractor shall immediately inform the Employer in writing if such insurance ceases to be available or otherwise is not maintained in accordance with this Clause or for any reason becomes void or unenforceable.

#### 11.4. Professional Indemnity Insurance:

- (1) Without limiting the Contractor's obligations and responsibilities under the Contract, the Contractor shall effect and maintain in accordance with the Laws of Macau S.A.R. and the Rules and Regulations of Macau International Airport before the date for commencement of the Contract Period, in the name of the Contractor, a professional indemnity insurance for a minimum amount of MOP20,000,000 in respect of the design of any part or all of the Works and other associated professional duties carried out by or on behalf of the Contractor pursuant to the Contract for any one occurrence or series of occurrences arising out of any one event, or each and every claim, for a period from the date for commencement of the Contract Period until 6 years after the date of the Certificate of Completion of the Whole of the Works.
- (2) The Contractor shall procure that the designer appointed or engaged by the Contractor in connection with the design or checking of the design of any part or all of the Works, shall effect and maintain, with well-established insurers of repute, professional indemnity insurance for a minimum amount of MOP20,000,000 in respect of the design or checking of the design of any part or all of the Works, for any one occurrence or series of occurrences arising out of any one event, or each and every claim for a period from the respective dates of commencement of appointment or engagement of the designer and independent checking engineer until 6 years after the date of the certificate of completion of the Whole of the Works.
- (3) The insurance policy shall include an Indemnity to Principals Extension covering Macau International Airport Company Limited's (CAM) and the Airport Operation Service Provider's (currently "ADA") interests as Principals under the Contract for the entire insurance period.
- (4) All insurances as required under these Conditions are to be taken out with a company to be approved in writing by the Employer and / or its appointed Insurance Consultant.

- (5) The Contractor shall immediately inform the Employer in writing if such insurance ceases to be available or otherwise is not maintained in accordance with this Clause or for any reason becomes void or unenforceable.
- (6) Maximum deductible/excess allowed under the insurance policy shall be limited to a maximum of 20% of the minimum amount required under sub-clause (1) or (2) of this Clause, as the case may be.
- (7) The Contractor shall bear the cost of any excess that become due, in the event of a claim made on any of the policies, as listed in the foregoing clauses.
- (8) If (i) the insurance policy effected pursuant to sub-clause (1) or (2) of this Clause contains a limit of indemnity in the aggregate for all claims for the period of insurance under the insurance policy, and (ii) the period of insurance under the insurance policy is twelve months or less, then either:
  - (a) the limit of indemnity in the aggregate for all claims for the period of insurance under the insurance policy shall be reinstated in full upon exhaustion of the limit of indemnity by reason of indemnity payments made on account of any claim, loss, damage, liability, cost or expense paid or payable under the insurance policy until the total amount of indemnity payable by the insurer under the insurance policy reaches 2 times the minimum amount required under sub-clause (1) or (2) of this Clause, as the case may be; or
  - (b) the limit of indemnity in the aggregate for all claims for the period of insurance under the insurance policy shall not be less than 2 times the minimum amount required under sub-clause (1) or (2) of this Clause, as the case may be; or
  - (c) the limit of indemnity for any one occurrence or series of occurrences arising out of any one event, or each and every claim under the insurance policy shall not be less than 2 times the minimum amount required under sub-clause (1) or (2) of this Clause, as the case may be.

- (9) If (i) the insurance policy effected pursuant to sub-clause (1) or (2) of this Clause contains a limit of indemnity in the aggregate for all claims for the period of insurance under the insurance policy, and (ii) the period of insurance under the insurance policy exceeds twelve months, then either:
- (a) the limit of indemnity in the aggregate for all claims for the period of insurance under the insurance policy shall be reinstated in full upon exhaustion of the limit of indemnity by reason of indemnity payments made on account of any claim, loss, damage, liability, cost or expense paid or payable under the insurance policy until the total amount of indemnity payable by the insurer under the insurance policy reaches 3 times the minimum amount required under sub-clause (1) or (2) of this Clause, as the case may be; or
  - (b) the limit of indemnity in the aggregate for all claims for the period of insurance under the insurance policy shall not be less than 3 times the minimum amount required under sub-clause (1) or (2) of this Clause, as the case may be; or
  - (c) the limit of indemnity for any one occurrence or series of occurrences arising out of any one event, or each and every claim under the insurance policy shall not be less than 3 times the minimum amount required under sub-clause (1) or (2) of this Clause, as the case may be.
- (10) The Contractor shall submit the originals or certified true copies of the insurance policy or policies or the corresponding insurance certificate(s) together with the premium receipt to the Employer and / or its appointed Insurance Consultant for approval prior to commencement of the Works. As and when he is reasonably required so to do by the Employer the Contractor shall produce and shall cause any his sub-contractor(s) as may be applicable and their respective sub-contractor(s) to produce for inspection by the Employer documentary evidence that the insurances required by these Conditions are properly maintained, but on any occasion the Employer may

require to have produced for his inspection the policy or policies and receipts in question.

- (11) Should the Contractor make default in insuring or in continuing to insure as provided in these Conditions the Employer may himself insure against any risk with respect to which the default shall have occurred and may deduct a sum or sums equivalent to the amount paid or payable in respect of premiums from any monies due to the Contractor. In respect of the period during which the aforementioned default shall have occurred, the Supervisory Engineer shall deduct from the Contract Sum such amount as bears the same proportion to the reasonable allowance for effecting the relevant insurance as does the period of default to the Contract Period.

## **12. Transportation**

- 12.1. Transport of the Goods, Materials and Tools to named place of destination, particularly the Project Site, shall be arranged and paid for by the Contractor, and the cost thereof shall be deemed to be included in the Contract Price.

## **13. Incidental Services**

- 13.1. The Contractor shall provide all the services as specified in Statement of Project Requirements. The price for performing the required incidental services shall be deemed to be included in the Contract Price.

## **14. Spare Parts**

- 14.1. The Contractor shall ensure the availability of spare parts or replaceable products for ten (10) years from the issue of the Final Acceptance Certificate. In addition, the Contractor shall provide the following materials, notifications, and information pertaining to spare parts:

- 1) such spare parts as the Employer may elect to purchase from the Contractor, without relieving the Contractor of any warranty obligations under the Contract; and

- 2) advance notification to the Employer of the impending termination of production of spare parts allowing sufficient time to the Employer to procure needed spare parts and to take other measures required; and
- 3) the schematics, drawings, and specifications of the spare parts, which are to be furnished at no cost of the Employer if requested, following the termination of production of the spare parts.

14.2. The Contractor shall provide necessary spare parts as specified in the Statement of Project Requirements.

## **15. Warranty**

15.1. The Contractor warrants that the Goods supplied under the Contract are new, unused, of the most recent or current models, and that they incorporate all recent improvements in design and materials unless provided otherwise in the Contract. The Contractor further warrants that all Goods supplied or Works carried out under this Contract shall have no defect, arising from design, materials, or workmanship (except when the design and /or material is required by the Employer's specifications) or from any act or omission of the Contractor, that may develop under normal use of the supplied Goods or Works in the conditions prevailing in the country of final destination.

15.2. This warranty shall remain valid for **ten (10) years for all items** after the Employer's signing the Provisional Acceptance Test Certificate for this Contract ("Defects Liability Period").

15.3. The Employer shall promptly notify the Contractor in writing of any claims arising under this warranty.

15.4. Upon receipt of such notice, the Contractor shall promptly repair or replace the defective Goods or Works or parts thereof, without costs to the Employer.

15.5. If the Contractor, having been notified, fails to remedy the defect(s) within the period specified by the Employer, the Employer may proceed to take such remedial action as may be necessary, at the Contractor's risk and expense and without prejudice to any other rights which the Employer may have against the Contractor under the Contract.

## **16. Claims**

16.1. In case the Contractor is liable for the defects or discrepancies and a claim is lodged by the Employer, the Contractor shall settle the claim as required or agreed by the Employer, in one or a combination of the following ways among others:

- 1) Agree to the rejection of the Goods and refund to the Employer the value of the Goods so rejected in the same currency as specified in the Contract and to bear the losses and expenses incurred including interest, accrued banking charges, freight and insurance premiums, inspection charges, storage, stevedore charges and other necessary expenses required for the custody and protection of the rejected Goods.
- 2) Devalue the Goods according to the degree of inferiority, extent of damage and amount of losses suffered by the Employer, as agreed between the Employer and the Contractor.
- 3) Replace the defective Goods and/or parts thereof with new Goods, parts, components and/or equipment which conform to the specifications, quality and performance as specified in the Contract, and/or repair the defective Goods and/or Works at the Contractor's expenses and risks and bear all directly related expenses sustained by the Employer. The Warranty according to TCC Clause 15 shall remain valid for the new or repaired Goods and/or Works for a length of time as specified in TCC Clause 15.2 counting from the Employer's provisional acceptance of the new or repaired Goods and/or Works.

16.2. Without prejudice to the Employer's any other remedies, if the Contractor fails to resolve the claim as required or agreed upon by the Employer within thirty (30) days after notification of the claim(s) by the Employer or a longer period of time agreed upon by the Employer, the Employer may proceed to recover the claim amount from the performance security established by the Contractor.

## **17. Payment**

17.1. Subject to TCC Clause 18 [Macau Tax Law], and unless otherwise stipulated elsewhere in the Contract, the method and conditions of payment to be made to the

Contractor under this Contract shall be as follows, but with the payments referred to in Clauses 17.1.1, 17.1.2, 17.1.3 and 17.1.4 below subject to 10% reduction to cater for retention money (“Retention Money”):

17.1.1. The Employer shall pay twenty percent (20%) of the total Contract Price to the Contractor as advance payment after receiving all the following documents and finding them in order:

- 1) One original and one copy of irrevocable Letter of Guarantee for advance payment issued by a reputable bank acceptable to the Employer for an amount equivalent to twenty percent (20%) of the Contract Price. (The advance payment guarantee will be released after the payment referred to in TCC Clause 17.1.2 below is made.)
- 2) Pro-forma invoice covering the payment.
- 3) A certified true copy of the Contractor’s latest Industrial Tax M/1 Form (which shall be duly updated and shall have been submitted to the Financial Services Bureau of Macau according to law) and M/8 Form.

17.1.2. The Employer shall pay twenty percent (20%) of the total Contract Price to the Contractor after receiving all the following documents and finding them in order:

- 1) Copy of Certification by the Supervision and the Employer for verifying forty percent (40%) of all the Works under the Contract having been completed.
- 2) Pro-forma invoice covering the payment.
- 3) A certified true copy of the Contractor’s latest Industrial Tax M/1 Form (which shall be duly updated and shall have been submitted to the Financial Services Bureau of Macau according to law) and M/8 Form.

17.1.3. The Employer shall pay twenty percent (20%) of the total Contract Price to the Contractor after receiving all the following documents and finding them in order:

- 1) Copy of Certification by the Supervision and the Employer for verifying sixty percent (60%) of all the Works under the Contract having been completed.



- 2) Pro-forma invoice covering the payment.
- 3) A certified true copy of the Contractor's latest Industrial Tax M/1 Form (which shall be duly updated and shall have been submitted to the Financial Services Bureau of Macau according to law) and M/8 Form.

17.1.4. The Employer shall pay twenty percent (20%) of the total Contract Price to the Contractor after receiving all the following documents and finding them in order:

- 1) Copy of Certification by the Supervision and the Employer for verifying eighty percent (80%) of all the Works under the Contract having been completed.
- 2) Pro-forma invoice covering the payment.
- 3) A certified true copy of the Contractor's latest Industrial Tax M/1 Form (which shall be duly updated and shall have been submitted to the Financial Services Bureau of Macau according to law) and M/8 Form.

17.1.5. The Employer shall pay fifteen percent (15%) of the total Contract Price to the Contractor, after receiving all the following documents and finding them in order:

- 1) Copy of Certification by the Supervision and the Employer for verifying all Works under the Contract are completed by the Contractor and in full condition for Provisional Acceptance.
- 2) Pro-forma invoice covering the payment.
- 3) A certified true copy of the Contractor's latest Industrial Tax M/1 Form (which shall be duly updated and shall have been submitted to the Financial Services Bureau of Macau according to law) and M/8 Form.

When this payment is made, the Retention Money that has been retained as stated above shall be released by the Employer to the Contractor.

17.1.6. The Employer shall pay five percent (5%) of the total Contract Price after receiving all the following documents and finding them in order:

- 1) Copy of the Final Acceptance Certificate issued by the Supervision and the Employer after the end of the 10 years Defects Liability Period

(DLP) and the Contractor's total completion of its obligations to the satisfaction of the Employer.

- 2) Pro-forma invoice covering the payment.
- 3) A certified true copy of the Contractor's latest Industrial Tax M/1 Form (which shall be duly updated and shall have been submitted to the Financial Services Bureau of Macau according to law) and M/8 Form.

## **18. Macau Tax Law**

18.1. The Contractor shall be responsible for compliance with the tax law in Macau. The Contractor shall pay at its own expenses all the taxes and dues levied on it by the Macau Government.

18.2. The Contractor shall provide to CAM, as soon as possible and also before each and every time any payment under the Contract is made to the Contractor, a certified true copy of the Contractor's latest Industrial Tax M/1 Form submitted to the Financial Services Bureau of Macau and M/8 Form, failing which payments due to the Contractor may be withheld.

## **19. Change Orders**

19.1. The Employer may at any time, by a written order given to the Contractor pursuant to TCC Clause 32, make changes within the general scope of the Contract in any one or more of the following:

- 1) drawings, designs, or specifications;
- 2) the place of delivery; and/or
- 3) the incidental services to be provided by the Contractor.

For the avoidance of doubt, the Employer may at any time increase or decrease the quantity of works, materials, goods or services originally specified in the Contract without any change in unit price.

19.2. If any such change causes an increase or decrease in the cost of, or the time required for, the Contractor's performance of any provisions under the Contract, the Employer shall determine an equitable adjustment in the Contract Price (according to the rate/unit price or price set out in the Contract for the item of work which is the same as or similar in character to the additional work carried out, or for the item

of work omitted, as the case may be) or Project schedule, or both, and the Contract shall accordingly be amended.

19.3. Any requests by the Contractor for the Employer to determine the adjustment according to clause 19.2 above must be made within thirty (30) days from the date of the Contractor's receipt of the Employer's change order.

## **20. Contract Amendments**

20.1. Subject to TCC Clause 19, no variation in or modification of the terms or provisions of the Contract shall be made except by written amendment signed by the parties.

## **21. Assignment**

21.1. The Contractor shall not assign, in whole or in part, its obligations to perform under this Contract, except with the Employer's prior written consent.

## **22. Subcontractors**

22.1. The Contractor shall notify the Employer in writing of all subcontracts awarded under this Contract. Such notification shall not relieve the Contractor from any liability or obligation under the Contract.

## **23. Delays in the Contractor's Performance**

23.1. Delivery of the Design, Goods and performance of Works and Services shall be made by the Contractor in accordance with the time schedule prescribed by the Employer.

23.2. If at any time during performance of the Contract, the Contractor or its subcontractor(s) should encounter conditions impeding timely delivery of the Goods or performance of Works or Services, the Contractor shall promptly notify the Employer in writing of the fact of the delay, its likely duration and its cause(s). As soon as practicable after receipt of the Contractor's notice, the Employer shall evaluate the situation and may at its discretion extend the Contractor's time for performance, with or without imposition of penalties, in which case the extension shall be ratified by the parties by amendment of the Contract.

23.3. Except as provided under TCC Clause 26, a delay by the Contractor in the performance of its obligations shall render the Contractor liable to the imposition of penalties pursuant to TCC Clause 24, unless the time for performance is extended pursuant to TCC Clause 23.2 without the application of penalties.

## **24. Penalty**

24.1. Subject to TCC Clause 26, if the Contractor fails to deliver any or all of the Goods or to perform the Works or Services or obligations within the period(s) or milestone(s) specified in the Contract or otherwise agreed or confirmed by both the Employer and the Contractor, the Employer may, without prejudice to its claims for damages or other remedies or applicable penalties, deduct from the Contract Price, as penalty, a sum equivalent to zero point one percent (0.1%) of the Contract Price per day, within the first thirty (30) days, and, from the thirty-first (31<sup>st</sup>) day onward, a sum equivalent to zero point two percent (0.2%) of the Contract Price per day, until actual delivery or performance, up to a maximum deduction of ten percent (10%) of Contract Price. Once the maximum is reached, the Employer may consider termination of the Contract pursuant to TCC Clause 25.

## **25. Termination for Defaults**

25.1. The Employer, by written notice of default sent to the Contractor, may terminate this Contract in whole or in part without prejudice to any other remedy for breach of Contract:

- 1) if the Contractor fails to deliver any or all of the Design, Goods, Works and Services, within the period(s) specified in the Contract or within any extension thereof granted by the Employer pursuant to TCC Clause 23; or
- 2) if the Contractor fails to perform any other obligation(s) under the Contract;  
or
- 3) if the Contractor, in the judgment of the Employer, has engaged in corrupt or fraudulent practices in competing for or in executing the Contract. For the purpose of this clause:

- a. "corrupt practices" means the offering, giving, receiving or soliciting of any things of value to influence the action of the Employer in the procurement process or in contract execution.
- b. "fraudulent practices" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Employer.

25.2. In the event the Employer terminates the Contract in whole or in part, pursuant to TCC Clause 25.1, the Employer may, among other applicable remedies, procure Goods, Works or Services similar to those undelivered upon such terms and in such manner as it deems appropriate, and hold the Contractor liable to the Employer for any excess costs for such similar Goods, Works or Services. However, the Contractor shall continue performance of the Contract to the extent not terminated.

## **26. Force Majeure**

26.1. If either of the parties to the Contract be prevented from executing the Contract by such cases of Force Majeure as war, serious fire, flood, typhoon and earthquake and other cases that the parties could not reasonably foresee at the time of conclusion of the Contract and its occurrence and consequences can neither reasonably be avoided nor reasonably be overcome, the time for execution of the Contract shall be extended by a period equal to the effect of those causes.

26.2. The prevented party shall notify the other party by cable or fax or telex within the shortest possible time of the occurrence of the Force Majeure event and within fourteen (14) days thereafter send by registered airmail to the other party, a certificate for evidence issued by the relevant authorities for confirmation. Should the effect of Force Majeure continue for more than one hundred and twenty (120) consecutive days, both parties shall settle the further execution of the Contract through friendly negotiation and reach an agreement within a reasonable time.

## **27. Termination for Insolvency**

27.1. The Employer may at any time terminate the Contract by giving written notice to the Contractor if the Contractor becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the Contractor, and such

termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the Employer.

## **28. Termination for Convenience**

28.1. The Employer, by written notice sent to the Contractor, may terminate the Contract, in whole or in part, at any time for its convenience. The notice of termination shall specify that termination is for the Employer's convenience, the extent to which performance of the Contractor under the Contract is terminated, and the date upon which such termination becomes effective.

28.2. For the Goods that have not been delivered or the Works or Services that have not been performed upon such termination, the Employer may select:

- 1) to have any portion completed, delivered and/or performed at the Contract terms and prices; and/or
- 2) to cancel the Goods, Works and/or Services and pay to the Contractor an amount for the costs of the Goods, Works or Services partially completed upon such termination and of the materials and parts procured by the Contractor prior to such termination.

## **29. Resolution of Disputes**

29.1. All disputes arising from the execution of or in connection with the Contract shall be settled through amicable consultation by both parties. In case no settlement can be reached within sixty (60) days after commencement of such consultation, the disputes shall be submitted for arbitration.

29.2. Any dispute which is referred to formal arbitration under sub-clause 29.1 shall be settled by arbitration in Macau S.A.R. at World Trade Center Macau Arbitration Center and in accordance with its Internal Regulations as at present in force. The arbitration procedure will be carried out by collective Tribunal, except any further agreement made by both parties.

The arbitrator is appointed by both parties or, in the absence of an agreement for that purpose, by the World Trade Center Macau Arbitration Center.

The language to be used in the arbitral proceedings shall be English.

### **30. Governing Language**

30.1. Unless otherwise agreed, the Contract shall be written in the English language.

### **31. Governing Law**

31.1. The Contract shall be governed by and interpreted in accordance with the current laws of the Macau S.A.R.

### **32. Notices**

32.1. Any notice given by one party to the other pursuant to this Contract shall be sent to the other party in writing to the other party's address specified or to such address of the party concerned as indicated in its latest address change notice.

32.2. A notice shall be effective when delivered or on the notice's effective date, whichever is later.

### **33. Taxes and Duties**

33.1. All taxes in connection with the execution of this Contract levied by the Macau S.A.R. Government on the Employer in accordance with the tax laws in effect shall be borne by the Employer.

33.2. All taxes in connection with the execution of this Contract levied by the Macau S.A.R. Government on the Contractor in accordance with the tax laws in effect shall be borne by the Contractor.

33.3. All taxes arising outside of the Macau S.A.R. in connection with the execution of this Contract shall be borne by the Contractor.

### **34. Miscellaneous**

34.1. It is the responsibility of the Contractor to arrange at its own expense export license(s), if required, for the Goods and Materials covered by this Contract.

34.2. The documents forming the Contract are to be taken as mutually explanatory of one another. For the purposes of interpretation, the priority of the documents shall be in accordance with the following sequence:

- (1) the Contract Form,
- (2) the Notification of Award,

- (3) the Contractor's Bid Form,
- (4) these Terms and Conditions of Contract,
- (5) the Statement of Project Requirements and Drawings,
- (6) any other parts of the tender document issued by the Employer,
- (7) any other parts of the Contractor's proposal.

### **35. Joint and Several Liability**

35.1. If the Contractor constitutes a joint venture, consortium or other unincorporated grouping of two or more persons/companies:

- 1) these persons/companies shall be deemed to be jointly and severally liable to the Employer for the performance of the Contract;
- 2) these persons/companies shall notify the Employer of their leader who shall have authority to bind the Contractor and each of these persons/companies; and
- 3) the Contractor shall not alter its composition or legal status without the prior written consent of the Employer.

### **36. Contractor's Design Liability**

36.1. The Contractor shall carry out all and any works and services to give sufficient details for the construction or installation of the Works so as to ensure that the materials/equipment selected by the Contractor is in compliance with the Contract requirements in all aspects, and the Works are workable as a whole in compliance with the performance requirements of all testing and commissioning and integrated system tests as stipulated in the Contract.



## **Section - 3 Attachments**

1. Bid Form
2. Form of Bid Security
3. Form of Power of Attorney
4. Form of Performance Security
5. Bank Guarantee for Advance Payment
6. Form of Company Profile
7. Form of Eligibility and Qualification
8. Form of Project Team
9. Tender Checklist

## 1. Bid Form

Date: \_\_\_\_\_

To: *(name of Employer)*

In compliance with your Tender Document for (name of project) (“Tender Document”), the undersigned representative *(full name and title)* duly authorized to act in the name and for the account of the Bidder *(name and address of the Bidder)* hereby submit the following in one original and \_\_\_\_ copies:

1. Bill of Quantities;
2. Brief Description of the Goods and Works;
3. Respective Statements of Compliance with and Deviation (if any) from the Technical and the Commercial terms and requirements in the Tender Document;
4. All the other documents required in response to Instructions To Bidders and Statement of Project Requirements;
5. Bid Security in the amount of \_\_\_\_\_ issued by (name of issuing bank).

By this letter, the undersigned representative hereby declares and agrees:

1. That the Total Bid Price (including the Core Items but excluding the Optional Item in the Bill of Quantities) for the supply and delivery of the Design, Goods, Works and Services specified in Statement of Project Requirements in accordance with all provisions of the Tender Document is FIXED LUMP SUM *(specify currency and price in words)*, that is *(currency and price in figures)*.
2. That the Total Bid Price of the Optional Item in the Bill of Quantities for the supply and delivery of the Design, Goods, Works and Services specified in Statement of Project Requirements in accordance with all provisions of the Tender Document is FIXED LUMP SUM *(specify currency and price in words)*, that is *(currency and price in figures)*.
3. That the Bidder will take full responsibility for Performance of the Contract in accordance with all provisions of the Tender Document.

4. That the Bidder has examined in detail all the documents including amendments (if any) and all information furnished for reference as well as relevant attachments and that he is perfectly aware that he must renounce all right of invoking ambiguities or misunderstandings in this respect.
5. That the Bidder's bid is valid for a period of \_\_\_\_ calendar days from the date of the deadline for the submission of bids.
6. That, pursuant to ITB Clause 18.5, its Bid Security may be forfeited.
7. That, pursuant to ITB Clause 2, the Bidder is not associated with a firm or any of its affiliates which have been engaged by the Employer to provide consulting services for this Project, and the Bidder is not a dependent agency of the Employer.
8. That the Bidder agrees to furnish any other data or information pertinent to its Bid that might be requested by the Employer and that the Bidder understands that the Employer is not bound to accept the lowest or any bid it may receive.
9. That all official correspondence pertinent to this bid shall be addressed to:

For and on behalf of \_\_\_\_\_ \*

Address:

Representative/authorized signature(s):

Name:

Title:

Date:

**(Detailed Contact information of the Bidder and Representative)**

\*If a bid is being made by a partnership or an unincorporated joint venture or grouping, the names and addresses of all partners or members of the joint venture or grouping should be inserted. Please note ITB Clause 20.4.

Please insert the Bidder's English/romanised name and, if such name is not an officially registered name, please ALSO insert the Bidder's name officially registered in Chinese/the local language.

## **2. Form of Bid Security (For reference)**

Issuing Date: \_\_\_\_\_

To: (Name of Employer)

This Guarantee is hereby issued to serve as a Bid Security of (Name of Bidder) (hereinafter called as the “Bidder”) for Invitation for Bid for supply of (Name of Tender) to (Name of Employer).

(Name of Issuing Bank) hereby unconditionally and irrevocably guarantees and binds itself, its successors and assigns to pay you immediately without recourse, the sum of (Currency and Figure in Words) upon receipt of your written notification stating any of the following:

- 1) The Bidder has withdrawn or unilaterally modified his Bid after the time and date of the deadline for the submission of bids and before the expiration of its validity period;  
or
- 2) The Bidder has failed to sign the Contract Form within forty-five (45) days after receipt of the Notification of Award; or
- 3) The Bidder has failed to establish acceptable Performance Security within thirty (30) calendar days after receipt of Notification of Award.

It is fully understood that this guarantee takes effect from the date of the deadline for the submission of bids and shall remain valid for a period of \_\_\_\_\_calendar days thereafter, and during the period of any extension thereof that may be agreed upon between you and the Bidder with notice to us, unless sooner terminated and/or released by you.

**(Printed name and designation of official authorized to sign on behalf of issuing bank)**

### **3. Form for Power of Attorney (For reference)**

KNOW ALL MEN by these presents that the undersigned (Name) (Title) of (Firm) lawfully authorized to represent and act on behalf of the said company, whose registered address is \_\_\_\_\_do hereby appoint (Name) (Title) of (Firm), whose signature appears below to be true and lawful attorney, and authorize the said attorney to execute all the necessary matters related thereto, in the name and on behalf of the said company in connection with the tendering process for and/or Contract of \_\_\_\_\_Project.

In witness thereof, we have hereto set out respective hands this (date, month and year).

Signature of Legal Representative:\_\_\_\_\_

Signature of Attorney:\_\_\_\_\_

Witnessed by:\_\_\_\_\_

Name and Title of Witness:\_\_\_\_\_

Name of Firm of Witness:\_\_\_\_\_

Address of Witness:\_\_\_\_\_

#### 4. Form for Performance Security (For Reference)

Issuing Date: \_\_\_\_\_

To: *(Name of the Employer)*

##### **Performance Security of Contract** \_\_\_\_\_

This Guarantee is hereby issued to serve as the Performance Security of *(Name of the Contractor)* (hereinafter called the “Contractor”) for Contract \_\_\_\_\_ dated \_\_\_\_\_ between you and the Contractor for \_\_\_\_\_ Project (hereinafter called the “Project”). The *(Name of Bank)* (hereinafter called the “Bank”) hereby unconditionally and irrevocably guarantees and binds itself, its successors and assigns to pay you, without recourse, up to the total amount of *(Currency and amount)* representing ten percent (10%) of the Contract Price in *(Name of Currency)* and accordingly covenants and agrees as follows:

- 1) On the Contractor’s failure, determined by you and notwithstanding any objection by the Contractor, of the faithful performance of all the Contract Documents, agreed modifications, amendments, additions and alterations thereto that may hereafter be made including replacement and/or making good of defective goods (hereinafter called “failure of performance”), the Bank shall immediately, on your first demand in a written notification stating the failure of performance by the Contractor, pay you such amount or amounts as required by you not exceeding the aggregate total as stated above in the manner specified in the said notification.
- 2) Any payment hereunder shall be made free and clear of and without deduction for or on account of any present or future taxes, duties, charges, fees, deductions or withholdings, of any nature whatsoever and by whoever imposed.
- 3) The covenants herein contained constitute unconditional and irrevocable direct obligation of the Bank. No alteration in the terms of the Contract to be performed hereunder and no allowance of time by you or any other act or omission by you which but for this provision might exonerate or discharge the Bank shall in any way release the Bank from any liability hereunder.

- 4) This guarantee shall remain valid and in full force and effect until the issue of the Provisional Acceptance Certificate upon the end of the construction works and the Contractor's satisfactory completion of its obligations as specified in the Contract.

**(Printed Name and Designation of officials authorized to sign on behalf of issuing bank)**

## **5. Bank Guarantee for Advance Payment (For Reference)**

To: *(Name of Employer)*  
*(Name of Contract)* (hereafter referred to as “Contract”)

In accordance with the provision of Clause 17 of the Terms and Conditions of Contract, *(Name and Address of the Contractor)* (hereinafter called “the Contractor”) shall deposit with the Employer an irrevocable bank guarantee to guarantee its proper and faithful performance of the Contract in an amount of *(Currency & Amount of Guarantee in Figures and Words)*.

We, *(Name of Bank)*, as instructed by the Contractor, agree unconditionally and irrevocably to guarantee as primary obligator and not as surety merely, the payment to the Employer on its first demand without whatsoever right of objection on our part and without its first claim to the Contractor, in the amount not exceeding *(Currency & Amount of Guarantee in Figures and Words)*.

We further agree that no change or addition to or other modification of the terms of the Contract to be performed hereunder or of any of the Contract Documents which may be made between the Employer and the Contractor, shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition, or modification.

**(Printed Name and Designation of officials authorized to sign on behalf of issuing bank)**



## 6. Form of Company Profile

1. Name of Company (full legal name):

---

Full Street Address:

Courier Address (if different):

---

---

---

Telephone: ( ) \_\_\_\_\_ Fax: ( ) \_\_\_\_\_

Contact Person Name:

Position:

---

This Company is a subsidiary of: \_\_\_\_\_

Companies subsidiary to this Company are: \_\_\_\_\_

2. JOINT VENTURE STATEMENT: **(Only for Joint Venture)**

Date and Place of Organization:

---

---

Purpose of the Joint Venture:

---

---

Name and Address of each party to the Joint Venture:

Name

Address

% of Ownership

---

---

---

The leading member who shall have authority to bind the proponent:

---

### 3. REFERENCES

Please provide a list of references, including business name, contact person(s), business relationship/nature of reference, phone number and address (i.e. previous contracts, current contracts, previous and existing clients, etc.). In addition, please provide the following references:

#### Financial References

a) Bank

Names and Title of Contact Person

Telephone Number ( )

b) Other Accredited Credit Rating Agency

Name and Title of Contact Person

Telephone Number ( )

c) Insurance Company

Name and Title of Contact Person

Telephone Number ( )

Please attach additional pages as required.

## 7. Form of Eligibility and Qualification

Note: Please refer to the minimum number of job references required in 2.1.2 of Section 1 (Instruction to Bidders) of the Tender Document.

1. Please list waterproof construction works, structural and civil works implemented by your company with the project price of each over MOP\$ 1,000,000.00 within the last five years. Indicate the scope of the projects, location, and length of contract and contract value. Please also provide documentary evidence of those projects such as signed contract form or reference letter from client.

| Scope of Projects | Location | Contract period | Contract Value |
|-------------------|----------|-----------------|----------------|
|                   |          |                 |                |
|                   |          |                 |                |
|                   |          |                 |                |

2. Please list waterproof construction works, structural and civil works project experience for airport implemented by your company, if any. Indicate the scope of the projects, location, and length of contract and contract value. Please also provide documentary evidence of those projects such as signed contract form or reference letter from client.

| Scope of Projects | Location | Contract period | Contract Value |
|-------------------|----------|-----------------|----------------|
|                   |          |                 |                |
|                   |          |                 |                |

3. Please provide documentary evidence of bidder's technical qualifications/ certificate (such as quality assurance certificate, safety management certificate, environmental management certificate, etc.) if any.

Please attach additional pages as required.

## 8. Form of Project Team

1. Please indicate the number of Personnel to be dedicated to the Project:

---

2. Please list Project Team members related to this project according to the form below.

| Name | Title | Experience (Years) | Project References |
|------|-------|--------------------|--------------------|
|      |       |                    |                    |
|      |       |                    |                    |
|      |       |                    |                    |

Please attach additional pages as required.

## 9. Tender Checklist

The following is a tender checklist for bidder's reference when compiling the documents and drawings to be included in the bidder proposal. It is recommended to compile the proposal as per below sequence. Please note that the list is not exhaustive and the bidder shall include other supporting documents deemed necessary, including but not limited to those required in the Instruction to Bidders ("ITB").

| <b><u>Technical Part</u></b>     |  |  |
|----------------------------------|--|--|
| <b>Section</b>                   | <b>Documents or Drawings</b>   | <b>Please <input checked="" type="checkbox"/> the box if included in the proposal</b>  |
| 1. Company Background            | 1.1 Replies to Section 3 – Attachments, 6. "Form of Company profile"<br>1.2 Valid business registration<br>1.3 Joint Venture Agreement, if any<br>1.4 Bank reference letter issued within three months prior to the deadline for the submission of bids  | <input type="checkbox"/><br><br><input type="checkbox"/><br><input type="checkbox"/><br><input type="checkbox"/>                                 |
| 2. Eligibility and Qualification | 2.1 Replies to Section 3 – Attachments, 7. "Form of Eligibility and Qualification"<br>2.2 Documentary evidence of conformity of the works and services to the tender document, including job references of similar projects with detailed description and provision of evidence such as signed contract form or complimentary letter from client<br>2.3 Documentary evidence of bidder's technical qualifications / certificate (such as quality assurance certificate, safety management certificate, environmental management certificate, etc.), if any | <input type="checkbox"/><br><br><input type="checkbox"/><br><br><input type="checkbox"/>   |
| 3. Technical Proposal            | 3.1 Preliminary design proposal specified in the Statement of Project Requirements<br>3.2 Technical proposal / methodology / work plan / construction proposal<br>3.3 Schedule for materials and spare parts<br>3.4 List of support offered during maintenance period<br>3.5 Safety / Quality procedures<br>3.6 Project schedule in Gantt chart format   | <input type="checkbox"/><br><br><input type="checkbox"/><br><br><input type="checkbox"/><br><input type="checkbox"/><br><input type="checkbox"/> |
| 4. Project Team                  | 4.1 Replies to Section 3 – Attachments, 8. "Form of Project Team"  | <input type="checkbox"/>   |

|  |   |                          |
|--|---|--------------------------|
|  | 4.2 Organization chart / proposed project team structure with reporting hierarchy, sole responsible personnel and contact person (in case the Project Manager is not dedicated to the project on a full time basis, please state his/her extent of involvement in this project and his/her extent of involvement in other airport projects, if any) | <input type="checkbox"/> |
|  | 4.3 Full CV of proposed project team with related experience stated in detail   | <input type="checkbox"/> |
|  | 4.4 Detailed profile of specialists or sub-consultants / sub-contractors, if any  | <input type="checkbox"/> |
| 5. Statement of Compliance, and Deviation (if any) | 5.1 Statement of Compliance with and Deviation (if any) from the technical terms and requirements in the tender document  | <input type="checkbox"/> |
| 6. Others  | 6.1 Form for Power of Attorney  | <input type="checkbox"/> |
|  | 6.2 Any other technical information   | <input type="checkbox"/> |

| <b><u>Commercial Part</u></b> |   |   |
|-------------------------------|---|---|
| <b>Section</b>                | <b>Documents or Drawings</b>  | <b>Please <input checked="" type="checkbox"/> the box if included in the proposal</b> |
| 1                             | Bid Form  | <input type="checkbox"/>  |
| 2                             | Bid Security  | <input type="checkbox"/>  |
| 3                             | Bill of Quantities  | <input type="checkbox"/>  |
| 4                             | Statement of Compliance with and Deviation (if any) from the commercial terms and requirements in the tender document | <input type="checkbox"/>  |

## Section - 4 Work Schedule

All the works should be completed within 4 months. Works sequence and timing may be changed by CAM to suit the latest airport requirements.

| Milestone | Discipline   | Construction Period   |
|-----------|--|-----------------------|
| 1.        | Project Confirmation, technical submission and approval            | 1 <sup>st</sup> month |
| 2.        | Warehouse roof top and envelope waterproof construction            | 2 <sup>nd</sup> month |
| 3.        | Warehouse envelope gutter, skylights and drainage pipe replacement | 3 <sup>rd</sup> month |
| 4.        | T&C and Handover   | 4 <sup>th</sup> month |

## **Section-5 Statement of Project Requirements and Drawings**

### **5.1. Background**

Cargo warehouse is located between ALBC Building and former Menzies Office Building. The gross floor area is about 7500 square meter and the building envelope is made of an aluminum sheets with insulation supported by I- beam steel structure. As the warehouse has been used for almost 20 years, there are different types of water leakage problem from the rooftop, wall curtains, gutters and drainage problems.

### **5.2. Project Setting, Description and Works Phases**

The works area shall be mainly the cargo building envelope. This renovation work is designated as a design and build work. The Contractor is obligated to design, provide methodology for separate phases for landside and airside work respectively. The work access to landside and airside shall be separated and could not be connected at the same time. The Contractor is responsible to provide and install material in order to make good of the water tightness and insulation condition of the building envelope. The expected life time of the project is 10 years.

### **5.3. Timeframe for Constructions and Preferred Schedule**

This contract work is expected to take around 4 months for completing all of the works after signing the Contract. The bidder shall provide preliminary programme of this work.

The Contractor shall be responsible for regularly submitting the deliverables as depicted in the relevant sections of this tender document.

### **5.4 License and Transportation**

The Contractor shall be fully responsible for the insurance, obtaining licenses and making any administrative applications to the Macau Government's competent authorities or any relevant entities for setting up the temporary scaffolding system for work.



### **5.5 Labor, Goods and Material**

Any personnel working in the Macau International Airport area shall follow the Macau Labor Law Requirements and the Contractor shall take full responsibility for their legal identity and status.

The Contractor shall properly secure and have full responsibility for any Goods, Materials, Equipment, Facilities on their own.

### **5.6 Access and Security Measure**

- a) Access to the site of Works shall be through designated routes as agreed by CAM, ADA and/or its representative.
- b) The Contractor cannot start execution of any works before the issuance of a Work Permit. Any personnel or vehicles executing any activity in the airside must be in possession and use of the valid access card as per the regulations in force in Macau International Airport, and Contractor must pay off the fees required to obtain access permits to the site prior to commencement of any Site works (Section 7- Site rules and Traffic rules).
- c) If the materials delivery or repairing or construction execution works require access to airside, the works access must not be directly connecting between the landside and airside at the same time.

### **5.7 Work Method Statement**

The Contractor must, as a condition precedent to being given access to the Site, submit to CAM and/or its representative an acceptable work method statement with respect to public safety, that is, a statement setting out the precautions to be taken to protect personnel using the Airport from injury arising out of the execution of the Work under the Contract.

### **5.8 Temporary Services**

- a) The Contractor must provide all necessary power, water, fire protection and other temporary services necessary for the execution of the Work under the Contract;
- b) The Contractor must make separate connection to all service mains necessary for

temporary services, and supply and install all required valves, piping, cabling and switchboards etc.

- c) The Contractor must be responsible to provide safe access for Supervision Engineer inspection and for Quality Control team test.
- d) The Contractor should take full responsibility for all temporary working platform, scaffolding, protective net and all personnel safety equipment in a safety manner for work.
- e) The Contractor must remove all temporary services on or before the Date of Works Completion.

### **5.9 Prevention and Making Good of Damage**

- a) The Contractor must not interfere with or damage property which is located on or adjacent to the Site, and must rectify immediately any interference or damage to such property;
- b) Where any property is damaged by the Contractor, the Contractor must bear all costs in repairing or replacing that property. If directed by CAM and/or its Representative to do so, the Contractor must at its own cost repair damage caused by its activities on Site. Any damage to public utilities or services must be repaired immediately and to the satisfaction of CAM and/or its Representative, and the representative of the appropriate authority, at the Contractor's cost. The Contractor must pay all restoration and inspection costs incurred by CAM and/or its Representative and the concerned authority because of such damage.

### **5.10 Site Cleanliness**

The Contractor must clean up all areas affected by its work daily and remove from the site all rubbish (including demolished material, sweepings, dust and all other debris). The Contractor must keep the Site clean at all times.

### **5.11 Final Clean up and Reinstatement of the Site**

As part of the Work under the Contract required to be completed before Practical

Completion, the Contractor must:

- a) clean the Site and remove all rubbish;
- b) remove all temporary work and installations, and all installation plant;
- c) restore that portion of the Site not occupied by the Works to a condition accepted by CAM and/or its Representative (being a condition that is at least equal to the condition of the Site at the time the Contractor was given access to it).

### **5.12 Quality of Works**

- a) The Contractor must verify that materials comply with requirements stated in this project requirement. Sample of materials shall be provided for inspection and approval by CAM and/or its Representative(s) prior to site work. Materials delivered to Site that are impracticable or do not comply with specification requirements must be promptly removed and replaced by the Contractor without additional cost to CAM;
- b) The Contractor should make good of the intersection/construction joint works in connection to the surrounding buildings in order to have a perfect waterproof condition in the cargo warehouse building.
- c) In order to ensure the high quality of the works and compliance to the Project Requirements, the works shall be controlled and quality inspection shall be carried out during the entire works process by the Engineer and /or CAM's appointed QA/QC consultant;

### **5.13 Inspection of Works**

- a) The Contractor shall provide inspection records of the works endorsed by qualified engineer or third party for approval by CAM and/or its representatives.
- b) The Contractor shall also provide as-built documentation, test reports and construction color photos after practical completion of Works.

### **5.14 MIA restrictions and safety/ security procedures**

Any works to be developed within and/or near the airport, shall be subject to the rules and regulations imposed by the Airport Operator (currently ADA) and the property management

company (currently JLL). The Contractor shall refer to the MIA restrictions and safety/security procedures in Section 7 – Site Rules and Traffic Rules.

#### **5.15 General requirements for all trades:**

- All statutory submissions, tests and works shall comply with the regulations of Macau local authorities.
- The Contractor should assume that all noisy work, welding work, etc. should be done at night time. The actual working hours will be informed by relevant airport operator, depending on Airport's operational requirement.
- Provision of all necessary safety and protective precaution measures during execution of works. The Contractor shall also take every precaution measures to protect the public from injury or death during the course of the Works.
- Submission of all necessary documents including but not limited to detailed designs, shop drawings, material samples and as-fitted drawings, certificates, forms etc. as requested by CAM and/or Macau local authorities for the execution and completion of works at no additional cost to CAM.
- The Contractor shall submit all shop drawings prior to the work commencement and in any case within two weeks of CAM's written request. CAM may reject, approve or amend such shop drawings. No claim by the Contractor will be accepted for disapprovals or amendments required by CAM. The approval by CAM of any such shop drawings shall not relieve the Contractor of his duties and responsibilities under this Contract.
- Materials supplied for any purpose shall be subject to approval by CAM prior to the works commencement. Samples, costs of delivery and any packing for the same, are to be provided free of charge by the Contractor. The submission approval shall not relieve the Contractor of his duties or responsibilities under the Contract.
- The Contractor shall supply and install temporary hoarding with approved finishing with provision of notice/signage along the frontage of the works area and provide access for other Contractor(s) as requested by CAM.
- Demolition/removal of the existing finishes and fixtures within the works

area.

- Materials as specified (or equivalent to existing if not specified) or more durable.
- The Contractor shall carry out all tests requested by CAM and/or Macau local authorities at the Contractor's own expense, including but not limited to, material strength tests to comply with regulations of Macau local authorities, operation tests after completion of works, to the entire satisfaction and approval of CAM. All testing shall be carried out by an approved testing laboratory.
- The Contractor shall prepare and submit to CAM immediately after the award of this Contract a comprehensive Critical Path Programme showing how the Contractor intends to organize and carry out the Works within the time fixed for works completion. Approval of the Programme (and revisions if applicable) shall not relieve the Contractor of any of his duties or responsibilities under this Contract.
- Any weather or tidal issue should be borne by the Contractor. The Contractor shall make all good on their own to catch up with the work schedule and avoid any potential delay.
- The Contractor shall be responsible for carrying out site survey at his own cost immediately after taking over the site to verify the layout, dimension and level of the premises. The Contractor shall immediately inform CAM within 3 days from date for possession of any discrepancies or faults.
- All costs related to the access, platform, scaffolding, site office, storage, utilities, protective measures and final cleaning for the completion of the project works shall be included in the total contract price. No adjustment shall be allowed to the Contract Sum for cost fluctuation of labor and materials or exchange rates of currencies regardless whether extension of time is being applied and/or granted.
- Proper earthing/bonding shall be done for statutory safety consideration.
- The Contractor shall backfill all openings for fulfilling relevant statutory requirements and make good after installation work.

- The Contractor shall apply for works permit, access permits and works commencement to ADA and all works shall not be commenced until approval of all these applications awarded from ADA. The Contractor shall allow all cost and time in their programme in connection with such applications.
- Cleaning of site and removal of debris upon completion.
- The Contractor shall carry out any maintenance work after Practical Completion according to the Contract.
- All items quoted for the works shall be guaranteed for serviceability for at least Ten (10) years from the date of provisional acceptance. No obsolete components should be quoted for this works.
- The Contractor is liable to fix any damage and/or defects of existing facilities due to the work.
- All design drawings must be signed by Macau Registered Engineer.
- The conceptual drawings and photos provided in this tender document are for reference only. The Contractor is responsible to provide and modify the detailed design based on actual site restrictions and conditions.
- All materials for inclusion in the permanent works shall be new, unless otherwise proposed by the Contractor with justifications and approved by CAM and/or its representative in advance.
- Accept site as found - The Contractor shall accept the site as found on the date for possession and at his own expense clear the site of any debris, surplus materials and rubbish which may have been left on site.
- For any works that may affect any tenants in the building or the surrounding area, the Contractor is responsible to inform the tenants 14 days in advance by a formal letter for the coordination of the crossing works.
- The Contractor should be responsible to coordinate with the property management entity namely JLL for the construction work.
- Unless otherwise stated in the Contract, laboratory tests shall be carried out by the Macau Government authorized laboratories. Testing shall not be carried out in other laboratories unless permitted by CAM and/or its representative. If testing is permitted to be carried out by the Contractor:

- Independent laboratories with no affiliation to the Contractor or its Sub-Contractors shall be used;
- Particulars of the laboratory proposed by the Contractor shall be submitted to CAM and/or its representative for prior approval.

#### **5.16 Submittal Requirements**

- Certificates of tests by manufacturers that are submitted to CAM and/or its representative shall relate to the material delivered to the Site. Certified true copies of certificates may be submitted if the original certificates cannot be obtained from the manufacturer. A letter from the supplier stating that the certificates relate to the material delivered to the Site shall be submitted with the certificates.
- Reports of samples tested for this project by an accredited laboratory shall be submitted to CAM and/or its representative immediately after the tests.
- Product Data: Manufacturer's product data sheets including installation details, material descriptions, dimensions of individual components and profiles, fabrication, operational descriptions and finishes.
- Shop Drawings: Manufacturer's shop drawings including elevations, sections and details. The shop drawings should indicate the dimensions and materials and shall be subject to the approval by CAM and/or its representative.
- As built drawings shall also be submitted before the Provisional Acceptance procedure.





## Section-6 Bill of Quantities (“BQ”)

| Item      | Description/Location  | Unit | Quantity | Rate | Amount |
|-----------|---|------|----------|------|--------|
|           | <b>CORE Items</b>   |      |          |      |        |
| <b>1.</b> | <b><u>Preliminaries</u></b>   |      |          |      |        |
| 1.1       | Including the provision of insurance, site survey report, notice board & signage, material submission, structural calculations following the international and Macau regulation, signed by the structural and E&M engineer (registered at DSSOPT); O&M manual, T&C report, access card, 10 years’ Defects Liability Period, labeling of all installation and equipment etc. Insurance, Ongoing Overheads and other Costs not included elsewhere in the Contract.  | Lot  | 1        |      |        |
| 1.2       | Mobilization  | Lot  | 1        |      |        |
| 1.3       | Safety precautions & personal protection equipment  | Lot  | 1        |      |        |
| 1.4       | Provide detailed Design and report of waterproof construction system with wind load and self-weight analysis, (at least 2 separate sheets of waterproof material), vapor barrier, addition thermal insulation system to the roof top, skylights, canopies, side cladding, drainage systems of the cargo warehouse. This design work should include the welding of the waterproof material, water tight system to the surrounding buildings. The design life of the whole waterproof system should last for 10 years. Provide design report, calculations and related drawings with Technical Engineer’s endorsement. The design report shall include necessary Civil works, Builder’s work, Structural work and E&M works etc. All designs shall be in accordance with the project requirement, Macau Law/Regulations and any standards if required | Lot  | 1        |      |        |
| 1.5       | Include all other necessary items referred to or implied in the Project Requirements or required by site situation but not specifically listed above, but necessary for the completion of the works (Detailed items must be indicated).   | Lot  | 1        |      |        |

| Item      | Description/Location  | Unit | Quantity | Rate | Amount |
|-----------|---|------|----------|------|--------|
| <b>2.</b> | <b><u>Hoarding, Scaffolding and Site Clearance</u></b>  |      |          |      |        |
| 2.1       | Setting up, removal of hoarding, scaffolding, safe access and safety net with fall arrest system. These works will be throughout the whole project period which includes different phases of work.  | Lot  | 1        |      |        |
| 2.2       | Perform all site clearance work for implementing the waterproof construction work. Upon finishing of the whole project, clean the site area to an appropriate condition. Removal of any temporary works back to the original.   | Lot  | 1        |      |        |
| 2.3       | Include all other necessary items referred to or implied in the Project Requirements or required by site situation but not specifically listed above, but necessary for the completion of the works (Detailed items must be indicated).   | Lot  | 1        |      |        |
| <b>3.</b> | <b><u>Waterproof construction works</u></b>   |      |          |      |        |
| 3.1       | Provide and supply material for the installation of the waterproof construction system (at least 2 separate sheets of waterproof material), additional thermal insulation system and vapor barrier layer to the cargo warehouse roof top, skylights, canopies and side claddings according to the design in Item 1.4 above. This construction work should include the welding of waterproof material, water tight system to the surrounding buildings. All accessories and fixing should be included. | Lot  | 1        |      |        |
| 3.2       | Include all other necessary items referred to or implied in the Project Requirements or required by site situation but not specifically listed above, but necessary for the completion of the works (Detailed items must be indicated).   | Lot  | 1        |      |        |
| <b>4.</b> | <b><u>Accessories works</u></b>   |      |          |      |        |
| 4.1       | Dismantle the cargo building roof and side gutters and replace with new one. All accessories and spare parts should be included.  | Lot  | 1        |      |        |

|   |  |     |   |  |  |
|---|--|-----|---|--|--|
| 4.2                                       | Dismantle the drainage down pipe and replace by new uPVC pipes for the whole cargo warehouse building envelope. All accessories and spare parts should be included.  | Lot | 1 |  |  |
| 4.3                                       | Include all other necessary items referred to or implied in the Project Requirements or required by site situation but not specifically listed above, but necessary for the completion of the works (Detailed items must be indicated).            | Lot | 1 |  |  |
| <b>5</b>                                  | <b><u>Testing and Commissioning</u></b>  |     |   |  |  |
| 5.1                                       | For all construction and replacement work in this project, reception tests shall be provided according to the appropriate testing standard for reception. Testing items and frequency should fulfil the requirement of CAM's technical consultant. | Lot | 1 |  |  |
| 5.2                                       | Include all other necessary items referred to or implied in the Project Requirements or required by site situation but not specifically listed above, but necessary for the completion of the works (Detailed items must be indicated).            | Lot | 1 |  |  |
| <b>Grand Total Lump Sum Price (MOP\$)</b> |  |     |   |  |  |

| Item  | Description/Location  | Unit | Quantity | Rate | Amount |
|---|---|------|----------|------|--------|
|   | <b><u>OPTIONAL Item</u></b>   |      |          |      |        |
| 1.1   | Dismantle and replace all skylights, light dome at the cargo warehouse side claddings with appropriate transparent material. All accessories and spare parts should be included. Also, provide reception tests according to the appropriate testing standard for reception. Testing items and frequency should fulfil the requirement of CAM's technical consultant | Lot  | 1        |      |        |
| 1.2   | Include all other necessary items referred to or implied in the Project Requirements or required by site situation but not specifically listed above, but necessary for the completion of the works (Detailed items must be indicated).   | Lot  | 1        |      |        |
| <b>Optional Item Lump Sum Price (MOP\$)</b> |   |      |          |      |        |

## Section 7 - Site Rules and Traffic Rules

# SITE RULES

## MACAU INTERNATIONAL AIRPORT SITE RULES

**THIS DOCUMENT APPLIES TO ALL  
CONTRACTORS, SUB CONTRACTORS, TRADESPERSONS, & AIRPORT  
STAFF**

I/We.....  
(Contractor) has read and understands the enclosed rules and agrees to  
comply therewith for the duration of any work performed at the work site.

Company Name: .....  
Representative Name: .....  
Title: .....  
Signed: .....  
Date: .....

I/We.....  
(Supervision Company) has read and understands the enclosed rules and  
agrees to assure the above contractor comply therewith for the duration of any  
work performed at the work site.

Company Name: .....  
Representative Name: .....  
Title: .....  
Signed: .....  
Date: .....

**AFTER READING THIS DOCUMENT  
PLEASE COMPLETE AND RETURN THIS PAGE  
TO OPERATIONS SAFETY COORDINATOR**

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## 1. INTRODUCTION

It is the policy of Macau International Airport (MIA) that all work conducted by airport staffs / contractors / subcontractors are performed in accordance with work permit requirements, quality, safety and environmental legislation. Macau International Airport SITE RULES apply to airport staffs / contractors / subcontractor / tradesperson / partnership / corporation (here all designated as "Contractor") undertaking a project through on or more contracts, performing work at a site located on either airport or engaged to undertake work on the assets within the airport. The activities of the Contractor within the precincts of the Macau International Airport and within the meaning of these rules shall remain at all times under the control of Airport Operations Division or appointed delegate.

**General issues and concerns should be directed to:**

Operations Safety Coordinator

Telephone: (853) 8898 2029

Fax: (853) 2886 1326

Email: [opssafety@ada.com.mo](mailto:opssafety@ada.com.mo)

**Engineering & Maintenance issues and concerns should be directed to:**

Engineering & Maintenance Director

Telephone: (853) 8898 2388

Fax: (853) 8898 2387

Email: [sammychan@ada.com.mo](mailto:sammychan@ada.com.mo)

**Safety issues and concerns should be directed to:**

Safety Manager

Telephone: (853) 8898 2508

Fax: (853) 8898 2506

Email: [josemarcal@ada.com.mo](mailto:josemarcal@ada.com.mo)

**Security issues and concerns should be directed to:**

Security Manager

Telephone: (853) 2886 1111 ext. 3868

Fax: (853) 2886 1295

Email: [albanoalbuquerque@ada.com.mo](mailto:albanoalbuquerque@ada.com.mo)

## 2. REQUIREMENTS FOR COMMENCING WORK

The Contractor shall ensure that all works are carried out in compliance with the Site Rules. The Contractor as well as the Supervision Company must sign the front cover of the Site Rules and return to Operations Safety Coordinator acknowledging that they have read and understood the terms and conditions prior to commencing work.

The Contractor shall ensure that all workers participated in the work comply with all related Macau laws and regulations as well as the MIA Site Rules and the requirements stated in the concerned work permit.

The Contractor shall not be permitted to commence work in airside or in restricted area of Terminal until issued with a valid access card. Works in other landside areas do not require an access card.

The Contractor must inform Airport Supervisor immediately in case workers lost the access card. The Contractor shall not commence work on the site, including establishing materials and / or equipment on site until approval and issuance of a work permit, or a Temporary Work Authorization. (See Appendix A for sample of the Permit and Authorization).

The Contractor shall isolate the worksite at Passenger Terminal Building by physical barriers (refer to Appendix B) / hoardings (refer to Appendix C) and lighted at night time if the worksite is outdoor.

Any work that require the use of equipment in airside that could be deemed a hazard to air navigation (i.e. cranes, scaffolding, poles, high machinery, etc.) must be marked with lights complying with specifications defined in ICAO Annex 14 during night time and will need a NOTAM (Notice to Airmen) issued. This is done through Airport Supervisor and **48 hours prior notice** is required. It is advisable to confirm the NOTAM is still in place prior to commencing work every day.

Any use of electrical / electronic equipment that may cause interference with navigation facilities or aircraft communications requires prior coordination with MIA Engineering & Maintenance Department & Airport Supervisor.

The effect of tall equipment, such as crane jibs in the movement area, especially near ILS and radar area will need to be considered, in conjunction with those responsible for electronic landing aids, and steps taken to reduce interference to the minimum. Construction equipment may have adverse effects on obstacle clearance limits and should be considered when working plans are formulated.

**Note:** Compliance with Site Rules will be audited from time to time. Non compliances identified induce the suspension of work until being rectified by the Contractor.



### 3. CONTRACTOR'S SAFETY PROGRAM

The Contractor should have a specific Construction Safety Program which goal is to foster a safety conscious environment to encourage its operatives, foreman and supervisor to actively manage safety in order to limit losses from personal injuries and property damage. The ultimate objective is to achieve greater efficiency and reduce direct and indirect costs associated with losses and loss control. The effectiveness of the Construction Safety Program depends upon the active participation and cooperation of the Contractor's project managers, supervisors, and employees and the coordination of their efforts with the MIA in carrying out the following basic procedures:

1. **Detection.** Maintain a system of prompt detection and correction of unsafe practices and conditions.
2. **Education.** Establish and conduct an educational program to stimulate and maintain interest and cooperation of all employees. Education will be conducted through safety meetings, safety training programs, and the use of personal protective equipment and mechanical guards. Watch a PPT prepared by OSC, ask questions and dissipate all doubts during presentation.
3. **Investigation.** All accidents, incidents and claims will be investigated to determine their causes and take reasonable corrective action when possible.
4. **Planning.** Plan all work to minimize the potential for personal injury, property damage, and loss of productive time.
5. **Regulations.** Comply with MSAR laws, regulations, industry standards, and Airport regulations and requirements.

### 4. ACCIDENT PREVENTION

Prevention of Work Site Accidents by complying with some of the general safety requirements related to the activities on construction work sites is a must and Contractors have the responsibility to correct hazardous conditions and practices. When more than one Contractor is working within a given work site, any job Foreman shall have the authority to take action to prevent physical harm or significant property damage. If it is determined there is imminent danger, the job Foreman or designated Contractor's Safety Engineer or Contractor's Safety Manager shall:

1. Take immediate action to remove workers from the hazard and stabilize or stop work until corrective actions can be implemented to eliminate the hazard.
2. Immediately notify the Contractor's Safety Engineer or Contractor's Safety Manager, and

others as identified in the Contractor's Construction Safety Plan of the condition.

3. Identify and implement corrective action to eliminate the hazard. Notify the proper emergency service personnel, OSC and Airport Supervisor if the danger cannot be promptly corrected and could develop into an emergency condition.
4. Employees shall immediately report any condition suspected to be unsafe or unhealthy to their job Foreman, Contractor's Safety Manager, or Contractor's Safety Engineer. If there is no resolution of the concern at that level, the employee shall report the concern to the Project Supervisor Company if any or the Safety Consultant.
5. When any condition has been determined to constitute a safety hazard, work cannot continue until the danger is corrected, guarded, or removed from the work site.

## **5. ACCIDENT / INCIDENT REPORTING**

Any damages to facilities likely to affect the air traffic control services or the safety of aircraft shall immediately report to Control Tower without delay.

All accidents and incidents must be reported to the Airport Supervisor immediately. A written preliminary report must be provided within **24 hours** and a full report within **72 hours** to Operations Safety Coordinator. Unsafe conditions or practices must be identified and corrective action must be implemented and approved by Operations Safety Coordinator before work continues.

## **6. SITE ESTABLISHMENT**

### **6.1 Environmental Requirements**

To preserve the local environment around the site of work and prevent contamination, all of the following items need to be noted and complied with before and during the work.

1. No oil changing or servicing of vehicles or construction machinery is to be carried out on site.
2. No animal is allowed in the work site.
3. No vehicles or construction machinery are to be washed on site.
4. All vehicles entering and exiting the site shall do so at one only designated driveway.
5. If the entry point is over an existing concrete curb, heavy timbers or the like should be placed in the road gutter for easier entry. Clay, rocks, crushed rock or sand shall not be placed in the gutter to act as a vehicle ramp.
6. All site water taps shall be maintained in a leak free condition and shall only be turned on when water is actually required.
7. All the materials, soil and construction rubbish should be put inside bags, containers or well covered with tied down canvas, especially at Apron & Runway area to avoid FOD, no matter the time of transportation.
8. The Contractor shall not store any new materials, rubbish, or stock piles of earth anywhere

outside boundary of the site unless at a MIA designated site. Soil and building rubble is not to be stored close or on airport drains. Any fill imported which is found to be contaminated will be removed by the airport at the expense of the Contractor.

## 6.2 Worksite Access Control

1. Workers can only mobilize within authorized area according to the approved access card.
2. If necessary, any workers or equipment mobilize into sensitive and critical area of movement area must obtain prior permission from Control Tower / Airport Supervisor.
3. Workers must follow the route defined in Work Permit or by the assigned Work Safety Officer.
4. Workers can only move and work within designated area. The Contractor must inform AOCC and Control Tower if on Movement area or Airport Supervisor at the Passenger Terminal Building and curb the start and work completion.
5. Any drivers or vehicles that do not possess valid Airfield Permit or Vehicle Access Label are required to be escorted by Follow-Me vehicle at all time during working period at the movement area.
6. To perform work in the Movement Area, all workers are required to comply with section 5.1 – Driving / Working in Movement Area stated in MIA Traffic Rules & Licensing Regulations.

## 7. PROTECTION AND REDUCTION OF INCONVENIENCE TO PUBLIC OCCUPANTS

The Contractor shall work in such a manner so as to avoid and reduce the inconvenience to persons occupying and visiting MIA.

Work shall not be performed in any area occupied or in public use unless specifically permission is obtained from the Airport or other designated party.

The Contractor shall provide adequate visibility and protection when public use of work areas must be maintained on sidewalks, entrances to buildings, lobbies, corridors, aisles, stairways, and vehicular roadways. Appropriate barriers (i.e., guardrails, barricades, temporary fences or partitions, overhead protection, shields) shall be secured against accidental displacement and maintained in place except where temporary removal is necessary to perform the work. When a barricade is temporarily removed, a guard shall be placed at all openings.

Barricades must be used where sidewalk sheds, fences, or guardrails are not required. Such barricades must guard against harmful radioactive rays or particles, flying materials, falling or moving materials and equipment, hot or poisonous materials, explosives and explosive atmospheres, flammable or toxic liquids and gases, open flame, energized electric circuits, or other harmful exposures

Sidewalks, building entrances, lobbies, corridors, aisles, doors, or exits in use by the public shall be clear of obstructions to permit safe ingress and egress of the public at all times.

Guardrails shall be provided on both sides of vehicular and pedestrian bridges, ramps, runways,

and platforms.

Sidewalk sheds, canopies, catch platforms, and appropriate fencing shall be provided when it is necessary to safely maintain public pedestrian traffic adjacent to the erection, demolition, or structural alteration of outside walls on any structure.

Appropriate warnings, signs and instructional safety signs shall be conspicuously posted where necessary. In addition, a properly certified flagger shall control the moving of motorized equipment in areas where the public might be endangered.

Appropriate safety signage should be displayed and site boundary delineated and protected to prevent any persons other than the workers accessing the work site.

Signs and lighting shall be placed at both ends of any public protection or obstructions at specific distances apart alongside such protection or obstructions to ensure alertness and awareness of public and workers accessing the work site. Warning signs and lights, including lanterns, torches, flares, and electric lights, meeting Airport requirements, shall be maintained from dusk to sunrise along the guardrails, barricades, temporary sidewalks, and at every obstruction to the public.

Contractor shall arrange the execution of works to minimize nuisance to the public and occupants of the MIA and to ensure the safety of occupied premises. The Contractor shall not deviate from the designated access route to work site without prior approval of the Airport Supervisor on the Movement area and Passenger Terminal Building. The contractor shall restrict access of the public to the work site to ensure public safety.

All above mentioned in point "7" are always subject to inspection and approval by OSC and/or Airport Supervisor in case of unavailability of OSC; ultimately OSC will be the one to decide type of protection to use depending on nature of works.

See Appendix B for standard barrier used inside Passenger Terminal Building.

## **8. PERSONNEL REQUIREMENTS AND NONCOMPLIANCE**

It is the Airport's intention to maintain a healthy and safe workplace. To succeed, all parties must be actively involved and maintain cooperation between all Contractors and their employees. Contractors are the solo responsible entity for orienting own employees on the specific safety rules that must be followed by all persons working on the project.

If the Airport Director is aware of any noncompliance with these safety requirements, or is advised of such noncompliance by Airport Supervisor, Operations Safety Coordinator or any Airport Operations officer or by a governmental agency with the authority to enforce safety regulations, the following shall occur:

1. The Airport shall deny any claim or request from the Contractor for equitable adjustment for additional time or money on any suspend-work order issued under these circumstances.
2. The Airport will notify the Contractor of the noncompliance and of the corrective action

required. This notice, when delivered to the Contractor via Email or their representative at the work site, shall be deemed sufficient notice of noncompliance to implement corrective action immediately.

3. The Contractor will be required to remove at no cost any employee for nonperformance of his or her safety/security duties or piece of equipment deemed to be unsafe from airport property.
4. Work Suspension. If the Contractor fails or refuses to take corrective action within the specified time, Airport Operations Service shall exercise the right to suspend work, stopping all or part of the work. The order will remain in effect until satisfactorily corrected.

The grounds for removal of any employee of the Contractor found to be violating the following work site and safety rules, or other Airport policies or procedures is subject to immediate removal from the work site. Disciplinary policies must be included in the Contractor's Safety Plan to address violations such as:

1. Any employee, who has been documented as having repeatedly violated the MSAR and Airport safety regulations on any Authority project, can be removed for cause.
2. No employee shall possess, use, or be under the influence of drugs or alcohol while on the project.
3. Fighting, gambling, or horseplay and unprofessional behavior will not be tolerated. Violators will be removed from the work site.
4. Carrying or possession of firearms, knives, clubs, or other weapons is strictly prohibited.
5. Contractor gross misconduct & inappropriate behavior as mentioned in section 25.

Any employee removed from an Authority construction project for safety violations or unsafe work practices cannot be hired to work on any other Airport project for a minimum of one year from the date of removal.

## **9. HOUSEKEEPING / STORAGE OF MATERIAL AND EQUIPMENT**

Housekeeping within the Passenger Terminal Building and airside areas is of prime importance. The contractor shall leave the site tidy and organized at the end of each work period. The work site and surrounding area must be cleaned after daily completion of work.

All workers in the sterile area of the airport may utilize tools in their work area provided: 1) The tools are essential and necessary to their work. 2) Tools must be kept controlled at all times, and shall not be left unattended at any given time. Knives are prohibited and may not be carried. 3) Tool boxes must be guarded and locked when not in use. No cartridge style nail guns, nor any tool that uses a cartridge or any explosive charge, shall be permitted on the job, unless authorized by Airport Operations Service / Security Manager.

All equipment and material of works must be stored and secured properly in area defined in the

work permit.

No materials and/or equipment shall be left unattended without prior approval of the Airport Supervisor on the Movement area and at Passenger Terminal Building. The Contractor shall be responsible for the security of any such materials and/or equipment within the airport perimeter. The storage of corrosive, toxic, flammable or radioactive materials shall not be permitted in MIA buildings at any time.

In other areas flammable goods storage will be according to the appropriate Macau laws and regulations. The storage of large volumes of chemicals and fuels must be stored off sites.

## 10. REMOVAL OF RUBBISH AND SPILLS

The Contractor shall not accumulate waste and debris on site or in the airport perimeter. Gangways and work areas must be kept clear and in a clean and tidy condition. All food and drink containers and the like shall be deposited in closed rubbish bins and removed from site daily. The Contractor shall remove all refuse generated on the worksite each day. The Contractor is responsible to ensure the following items:

- ❖ On site waste bins used for construction wastes should be covered at the end of the day.
- ❖ Waste bins shall not be cleaned on site.
- ❖ Inspect bins for leaks and the surrounding area for evidence of leaks.
- ❖ Dispose of hazardous wastes using competent and licensed contractors.
- ❖ Concrete trucks and painting equipment are not to be washed out on site.
- ❖ Temporary toilets are to be emptied regularly and should be inspected for leaks.

### 10.1 Spill Prevention

The Contractor should have plans in place to cover the prevention, clean up and good environmental practices with regard to spills.

### 10.2 Spills Cleanup

The Contractor must clean up any oil spillage or chemical substances etc as soon as practicable and ensure that such substances are returned to the proper storage facilities after use. Under no circumstances should chemicals or oils etc. be allowed to pollute water courses, sewer and drains, and in the event of accidental occurrence, the matter must be reported to the Airport Supervisor immediately.

## 11. PERSONAL PROTECTIVE EQUIPMENT

All personnel shall be aware the danger of personal injury by ingestion in front or jet blast behind a running aircraft engine (indicated by flashing red lights on top and bottom of the aircraft fuselage). The drivers of truck carrying construction or working materials and gravel that could be sucked or projected by jet blast should be aware of the hazardous conditions that may happen if they do not respect the safety considerations.

All personnel undertaking work at the MIA movement area and baggage make up area are required to wear a High-Visibility vest.

Where long hair can become a safety hazard, it must be contained.

The site supervisor is responsible to ensure all workers wear personal protective equipment suitable for that work, i.e. helmet, safety belt, ear protector, reflective jacket etc. Failure to comply with the site PPE requirements may result in the removal of the offending member from the site.

## 12. DOORS

Plant room doors are not to be chocked open, or left open or unlocked at any time whilst unattended. No fire or security door shall be wedged or chocked open at any time.

## 13. ISOLATION OF SERVICES

The Contractor shall provide **at least 5 working days advance notice** to the ADA Operations Safety Coordinator of the required isolation of any services who will in turn coordinate with ADA Engineering & Maintenance Department.

All works on Electrical Services should be isolated using the tag out procedure.

## 14. HOT WORKS

**NO** Hot Works may be carried out until a valid **Hot Works & Fire Isolation Permit** (See Appendix A for a sample of the permit) is obtained from the Operations Safety Coordinator **at least 5 working days advance notice** is required before work may be carried out. The Contractor is to note that welding operations are not permitted in all areas of the airport and issuance of Hot Works & Fire Isolation Permit will be subject to this consideration.

## 15. WORKING AT HEIGHTS - PREVENTION OF FALLS

Persons carrying out construction / maintenance activities at a height of 2 meters or more, may be exposed to the risk of death or injury from falling.

### Training and Supervision

People working at heights must be trained in practical fall prevention and fall arrest techniques. Whenever personal protective equipment is used, the employer must ensure that workers know how to properly select, fit, use, inspect, and maintain the gear they will be using. The employer is responsible for providing appropriate training, and safety equipment that complies with safety standards, and ensuring that workers use the fall protection system provided at all times.

### Fall Protection

If workers are at risk of falling 2 meters or more, they shall use the appropriate fall protection system when working. There are various fall protection methods and devices to protect workers



who are at risk of falling. Each has their appropriate uses; depending on the situation, use one or more of these fall protection methods:

**Guardrails** should be installed at the edges of construction sites, roofs, and scaffoldings whenever possible to prevent fall. Standards for guardrails are to be followed according to Macau Laws.

**Fall restraint systems** such as work positioning devices that prevent workers from traveling to the edge of the building or structure must be provided if the use of guardrails isn't practicable.

**Fall arrest systems** (full body harnesses and safety nets) are used to stop workers in mid-fall to prevent them from hitting the surface below. **Full body safety harnesses** attached to secured lanyards are widely used, however to be effective, they must be fitted properly to each worker. Although a poorly fitting harness will stop a fall, it can injure the worker who is dangling in mid-air if the straps and metal supports are not contoured to the individual's shape.

The lanyard, or line that stops the fall, and the anchor point for the lanyard are just as important as the harness. Anchor points must be carefully planned, usually in consultation with an engineer, and the length of the lanyard must allow for the stretch in the material resulting from the fall. Manufacturers can provide information to help contractors choose the correct length and avoid contact with the ground or other objects.

**Safety netting** can be used effectively in construction. Trained personnel are required to install, dismantle and inspect the netting, and no worker should work above nets without proper training.

Before working at heights, ensure that all potential hazards are identified and that appropriate controls are put in place to prevent falls. Incorrect use of ladders is one of the main causes of fall across all industry sectors. Ideally the contractor should provide a mobile scaffold to allow safe working at heights.

If there is a danger of materials falling whilst working at heights, ensure that a suitable barrier, no less than a 3 meter radius, is erected directly below the work area, equipments/tools are properly secured with hooks and strap-on and those appropriate signage are put up.

**Ladders** must be placed on a firm footing and effectively secured to prevent outward or sideways movement. A ladder must be correctly positioned to an angle ratio of 1:4 (1 [one] meter out for every 4 [four] meters of height).

**Scaffolds** must be kept clear with no loose materials, rubbish or debris lying around. Access and egress ways must be kept clear at all times. Work platforms must be at least 610mm wide with non-skid floors and sound rigid footing. A standard guard rail and toe boards must be fitted on scaffolds over 3 meters. Scaffolding with guardrail may be used as fall protection around the edge of a roof. Never use makeshift or defective scaffolds. Ensure that castors are in good condition. Do not throw materials or rubbish from scaffold decks. All scaffolds and specially unattended or incomplete scaffolds, must have danger tags and warning sign attached at appropriate locations to prevent accidents/incidents.



Note: Prior to any installation of high platform or scaffolding for work, permission shall be obtained at least 48 hours in advance from Airport Supervisor for the Movement area, Passenger Terminal Building and curb side.

## **16. COMPRESSED AIR**

Compressed Air Pneumatic tools must be used with care. Ensure that safety pins are placed at connection points, or safety chains where provided, and air valves are turned off at the source, not by crimping hoses. This will reduce the potential for injury in the event of a failure of any of the couplings.

To prevent accidental injury when working with compressed air, here are several precautions to follow:

- A compressed-air tool operator must wear eye protection and other appropriate personal protective equipment.
- Before operating an air hose, examine all connections to make sure they are tight and will not come loose under pressure. A loose air hose can make a dangerous bullwhip.
- Check the air hose carefully to make sure it is in good condition before opening the valve to let air into the hose; when the job is finished, turn off the valves on both the tool and the air line.
- Hold the nozzle when turning the air on or off.
- Before turning on the air pressure, make sure that dirt from machinery will not be blown onto other workers.
- Don't kink the hose to stop the airflow; always turn off the air and the control valve.
- Continuously check the condition of a compressed air tool and the air hose for damage or signs of failure.
- Never point a compressed air hose nozzle at any part of your body or another person.
- Never use compressed air for a practical joke.
- Never look into the "business end" of a compressed air tool.
- Never use compressed air for cleaning work clothes or machinery.
- Keep air hoses out of aisle ways where they can be damaged by traffic or be a tripping hazard.

Always wear safety glasses or goggles when using compressed air.

## **17. ELECTRICITY**

### **a) Site Switch Boards**

Ensure that construction site switch boards are of robust design, mounted securely and are constructed from materials able to withstand mechanical damage. Construction switchboards should have:

- ❖ Protective cover or door that will not damage power cables when closed
- ❖ Way of keeping the cover or door open for electrical installation work

- ❖ Be connected to the incoming electricity supply by direct method
- ❖ An extension lead tie-bar to prevent strain on the plug and socket outlet connection
- ❖ Insulated cables stands for the support of cables and extensions leads off the ground
- ❖ Weatherproofing if located outdoors or anywhere subjected to water exposure
- ❖ A clear 1 meter at the front of the switchboard
- ❖ Isolating switches/circuit breakers and RCDs (*residual current device*) that must be marked for their function
- ❖ A lockable cover over circuit breakers and RCDs
- ❖ **NOTE:** *Where the electrical installation comprises only one final sub-circuit the fitting of a lockable cover over the circuit breaker and RCD is not necessary*

### b) Wiring

Construction wiring must not be tied down to, bundled, or grouped with permanent installation wiring. It must be protected from mechanical damage by a suitable enclosure or barrier not less effective than:

- Medium duty rigid PVC conduit
- Heavy duty corrugated conduit
- Flexible electrical hose

Below are examples of situations where cabling would require protection:

- ❖ Cable run on exterior surfaces
- ❖ Cable run on perimeter construction fencing secured on the ground
- ❖ Cable which may come into contact with unearthed metal structures on the work site
- ❖ Cable run across or over metallic roofs or edges
- ❖ Cable run in a trench filled with debris and/or water

Leads can't be lying in mud or water or in areas where they can be damaged or become tripping hazards. Leads shall be run on hanger points and must be placed in a way that passage for people and vehicles has enough height for safety clearance. A clearance of no less than 2 meters should be verified at work sites where personnel work.

### c) Portable outlet devices

- ❖ Double adaptors, three-in plug adaptors and other types of domestic multi-plug power boards are not allowed for construction work and must not be used. Portable outlet devices, also known as "power board", that provide 1 or more socket-outlets may be used subjected to below conditions:
- ❖ Robust double-insulated construction and minimum rating of IP 33 (*degrees of protection provided against the intrusion of solid objects, including body parts like hands and fingers, dust, accidental contact, and water in electrical enclosures*)
- ❖ Switches controlling the socket outlets are to be double pole
- ❖ Socket-outlets mounted on the assembly are protected against damage by extended

sides or covers

- ❖ Incorporates over current protection device with a maximum current rating of the supply flexible cord
- ❖ Incorporates RCD protection with a maximum residual or tripping current of 30mA

#### d) Extension Leads

The following conditions apply to extension leads:

- ❖ Plugs and sockets must be either a non-rewirable, (molded) type or a transparent type
- ❖ Ensure that plugs and cord extension sockets are wired identically and that the identity of actives, neutral and earth connections are preserved in a like manner
- ❖ Flexible extension leads must be heavy duty sheath flexible cords
- ❖ Where the flexible extension passes through scaffolding or other metal structures, they must be run on hangers covered with non-conducting material to prevent mechanical damage
- ❖ The sheath of a flexible extension lead must not contain green color
- ❖ Maximum length of a power tool lead is 5 meters when connected to a flexible extension lead
- ❖ Maximum length of the most common types of flexible extension leads shows below:

| Current rating (A) | Conductor size (mm <sup>2</sup> ) | Maximum length (metres) |
|--------------------|-----------------------------------|-------------------------|
| 10                 | 1.0                               | 25                      |
|                    | 1.5                               | 35                      |
| 15                 | 1.5                               | 25                      |
|                    | 2.5                               | 40                      |
| 20                 | 2.5                               | 30                      |
|                    | 4.0                               | 50                      |

**All electrical works must be done in consultation with ADA Engineering & Maintenance Department.**

## 18. DANGEROUS / HAZARDOUS SUBSTANCES

In no circumstances dangerous/ radioactive substances shall be used. If the use of such substances cannot be prevented, prior approval must be obtained from the competent entities (e.g. ADA, DBA, etc.). Treatment, transportation and disposal shall be arranged in accordance with Macau laws and regulations.

The Contractor should take care when using hazardous substances. Follow instructions given by manufacturer concerning ventilation of the area and general use of these materials. **Make sure that the Material Safety Data Sheet (MSDS) and tools with material for treating leakage are readily available before using any hazardous substance.**

## 19. FIRE ALARM & HYDRANT SYSTEMS

Prior to undertaking any work which may produce smoke, fumes, dust or heat the Contractor shall ensure that the SMOKE DETECTION APPARATUS and Fire Alarm Systems are isolated by ADA. A Hot Work & Fire Isolation Permit must be obtained from the Operations Safety Coordinator prior to isolation of these systems. The Contractor shall provide **at least 2 working days advance notice** of the requirement to isolate Fire Alarm Systems.

Fire Alarm Systems must be reactivated immediately on completion of the work requiring the isolation and / or at the vacating of the sites.

## 20. FIRE EVACUATION PROCEDURES

The Contractor must familiarize themselves with the MIA fire evacuation procedures and the appropriate assembly points. They should discuss any problem, which could occur with the Operations Safety Coordinator. The Contractor must not obstruct any fire fighting equipment or fire exit and ensure that fire escape routes, fire service points are maintained free from obstruction at all times.

## 21. EMERGENCY/ADVERSE WEATHER AND CYCLONE PRECAUTIONS

The Contractor shall ensure that unfinished work, equipment, sheds, hoarding, materials and any other movable items on the site, are protected, stored, or secured to the extent necessary to ensure that in strong wind conditions they will not be a danger to persons or property because of collapse, movement or any other cause.

In situation of visibility lower than 800 meters, all works in the movement area or outdoor works at the Passenger Terminal Building and curb side shall be suspended.

In situation of AMBER or RED thunderstorm warning, Typhoon Signal No.3, strong wind (Black Ball Signal average wind speed over 20 knots), all outdoor works except those works inside a building shall be suspended.

During occurrence of any emergency arise or any special arrangement is communicated by Airport Supervisor at Movement area and Passenger Terminal Building or Operations Safety Coordinator, work-in-progress should be suspended immediately.

## 22. SMOKING / BEVERAGES

Smoking is prohibited inside the airport except in smoking lounge at the Passenger Terminal Building.

Eating/Drinking is prohibited inside the movement area (including runway and taxiways) of the airport.

Drug taking and drinking of alcohol is forbidden before and during the work.

## 23. CEILING TILES AND HATCHES

Ceiling tiles removed and ceiling hatches opened during the course of work shall be replaced or closed whenever the site is to be unattended.

## 24. CALL OUTS

Specified Contractors are on call and are called in by ADA for problems occurring after working hours. Every Contractor called in by ADA outside normal working hours is to contact Airport Supervisor for work at Movement area and Passenger Terminal Building in person advising whether or not fault has been rectified or otherwise

## 25. GROSS MISCONDUCT & INAPPROPRIATE BEHAVIOUR

Any Contractor proved to have involved and/or engaged under any of the following items may be liable to instant cancellation of work permit and further criminal proceedings by MIA.

- (i) Unauthorized removal or interference with any protective device, unauthorized operation of any item or machine, plant or equipment.
- (ii) Damage, misuse or any interference with any item of fire fighting equipment.
- (iii) Unauthorized removal or defacing of any label, sign or warning device provided in the interest of safety, health and welfare.
- (iv) Misuse of any chemicals, flammable or hazardous substances or toxic materials.
- (v) Smoking outside the smoking lounge at the Passenger Terminal Building.
- (vi) Dangerous horseplay or playing practical jokes which could cause accidents.
- (vii) Making false statements or in any way deliberately interfering with evidence following an accident or dangerous occurrence.
- (viii) Misuse of compressed air or pneumatic equipment.
- (ix) Overloading of any lifting equipment or any company vehicle.
- (x) Being under the influence of intoxicating liquor, drugs or similar substances.
- (xi) Unauthorized use of mobile telephones at airside locations.
- (xii) Unauthorized use of any radio equipment at airside locations.
- (xiii) Using tools in the security sterile area that are not approved by ADA.
- (xiv) Failing to display an access card issued by MIA for an area in which a card is required.
- (xv) Failing to comply with any direction given by ADA.
- (xvi) Failing to comply with MIA Airside vehicle requirements.
- (xvii) Entering any part of the security controlled area without approval.
- (xviii) Using a vehicle without prior approval from Airport Supervisor.
- (xix) Firearms are not to be brought onto the airport site.
- (xx) Use of inappropriate behavior or language.
- (xxi) Working in movement area without wearing reflective vest.
- (xxii) Work site and surrounding area are not cleaned after work.

## 26. NOISE MANAGEMENT

Works involving loud activities will be conducted in such a manner as to minimize the impacts of construction noise on the surrounding area. Consideration should be given to factors such as the timing of noisy construction activities (e.g. Pile driving and concrete cutting) will be restricted to between 8am and 10pm or where otherwise agreed and approved by Airport Supervisor on a case by case situation. (Controlled by maximum permissible noise levels by time of day and week).

- The type of equipment used where possible should be selected for low noise emissions.
- Plant and vehicles used on airport are to be maintained in accordance with the manufacturers specifications, and more specifically will have the appropriate noise control equipment fitted and in a suitable condition.
- Noise standards must be controlled in the vicinity of passengers.

Note: Any works deemed to create high noise level shall obtain permission at least 24 hours in advance from Airport Supervisor in Movement area and Passenger Terminal Building and curb side.

## 27. AIR QUALITY

The aim of these guidelines is to minimize the impacts of construction works on air quality of the airport and surrounding areas.

During the dry season dust from construction sites is an area of concern requiring those responsible for the work to carry out the following dust control measures:

- Stockpiles of construction materials will be watered to prevent the generation of dust.
- All personnel spraying chemicals or paints at the airport shall wear appropriate personal protective equipment and shall ensure that over-spray are contained so as not to pose a hazard to the health of general public.

## 28. AS BUILT DRAWINGS

The Contractor must provide ADA Engineering & Maintenance Department with a set of surveyed, as-built drawings in an electronic format as specified by ADA E&M Department. Drawings must show building works and services.

## 29. HARRASMENT AND DISCRIMINATION

Harassment is any conduct which has the effect of interfering with another employee's work performance or creating an intimidating, hostile or offensive work environment. Harassment can be

- Sexual harassment

- Physical or mental abuse
- Racial or ethnic jokes or comments
- Teasing intended to upset or provoke an employee

It is important to recognize that behavior or comments that may not offend one person may be unwelcome or offensive to another person. By reading and understanding the above Harassment examples you consent to assuming full responsibility for any actions that are deemed unacceptable.

### **30. FIRE EXTINGUISHERS**

- o All occupants of premises should be familiar with different types of fire extinguishers and their location.
- o Place extinguishers near where they may be needed, but not too close as fire may put extinguisher out of reach.
- o Extinguishers require regular maintenance. Check with supplier for details.
- o Ensure extinguishers are recharged after each use.
- o Report missing, defective or discharged fire extinguishers to whoever is responsible for these items.

### **31. FIRE PREVENTION**

- o Ensure passageways and exits are not blocked by storage of waste.
- o Ensure that exits are not locked whilst people are working in the building.
- o Dispose of waste paper, packaging, old rags and other fire hazards.
- o Designate an employee to ensure that appliances (stove, kettles, etc) are switched off each night.
- o Wherever possible turn off computers and monitors each night.
- o Ensure that any cracked, frayed or broken electrical cord or plug is replaced immediately.
- o Ensure that there is plenty of air circulation space around heat producing equipment (e.g. photocopiers).
- o Do not run electrical leads or cords across doors or walkways, or pinch them behind or under furniture.
- o Do not overload power outlets or extension boards.

## **DO NOT TAKE ANY RISKS**



## 32. CONCRETE DELIVERY

1. Contractor is responsible to make a written request of concrete delivery of major casting to ADA Security Office, at least 5 working days in advance.
2. Contractor is responsible to send the scheduled date for concrete delivery of major casting to Operations Safety Coordinator (OSC) via email ([operationssafety@ada.com.mo](mailto:operationssafety@ada.com.mo)), at least 5 working days in advance.
3. A cleaning vehicle with at least 4 staffs arranged by the contractor will first be guided to an agreed location within the Movement Area (hereinafter referred to as “Fixed Point”) and remain there, ready for action.
4. Contractor shall arrange 2 concrete trucks to arrive at the same time for every guidance, which shall be done by Follow-Me vehicle (FM). Request for guidance shall be made through AOCC by phone (28861111 Ext.1111).
5. FM will guide the concrete truck(s) from Postguard #2 (PG2) to the Fixed Point via the Apron and Taxiway.
6. If the Contractor requires more than one guidance for concrete delivery, another set of 2 concrete trucks shall arrive prior to previous set return to PG2.
7. All concrete trucks must have the concrete dispenser in the UPWARDS position during all guidance.
8. Upon arriving at the Fixed Point with the concrete trucks, the cleaning team shall follow FM to perform Taxiway pavement inspection.
9. When debris is found, the cleaning team must properly clean the area with pressure water gun, shovels and brooms.
10. Airport Operation Officer in FM shall be responsible to decide whether the contaminated area is properly cleaned.
11. After cleaning is done, FM shall guide cleaning team back to the Fixed Point.
12. All concrete trucks must have their wheels and equipment CLEANED and free from debris by the cleaning team after each delivery.
13. Delivering process shall be repeated within the assigned period between 0000 and 0800.
14. Scheduled delivering time may vary depending on real time aircraft movement and delays.
15. If Major castings cannot be completed in a night, concrete delivery shall be made in the following nights as needed.
16. Contractor shall be fully aware that Aircraft movement always has priority over any works within the Movement Area.



**APPENDIX A:**

**WORK PERMIT**

**HOT WORK & FIRE ISOLATION PERMIT**

**TEMPORARY WORK AUTHORIZATION**

Sample of Work Permit (front)



機場管理有限公司  
ADMINISTRATION OF AIRPORTS LTD.  
ADMINISTRAÇÃO DE AEROPORTOS, LDA.

**Airport Operations Division**  
**Work Permit**

|  |  |   |            |
|--|--|---|------------|
| Company Name:  |  | Email:  | Serial No. |
| Contact No.:   |  | Fax. No.:   | WO/REF:    |
| Applicant Name:  |  | Site Supervisor Name:   |            |
| Contact No.:   |  | Contact No.   |            |
| Supervision Company Name:  |  |   |            |
| Contact Person:  |  | Contact No.:  | Fax. No.:  |
| Location <input type="checkbox"/> Maneuvering Area, <input type="checkbox"/> Apron, <input type="checkbox"/> Passenger Terminal, <input type="checkbox"/> Others)  |  |   |            |
| Work Scope:  |  |   |            |
| Detailed work:   |  |   |            |
| Work Period: From _____ to _____ Daily Schedule _____ to _____   |  |   |            |
| Access Route:  |  | Annexes:  |            |
| Airport Operations Mandatory Requirements:<br><u>Airport Supervisor MUST be informed when works start/finish.</u>  |  | Issuance of NOTAM <input type="checkbox"/> Yes Nr: _____ <input checked="" type="checkbox"/> No<br>Need of Trunk Mobile <input type="checkbox"/> Yes Quantity ____ <input checked="" type="checkbox"/> No<br>Talk Group : _____ Call Sign: _____<br>Need of Safety Officer <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No<br>Mov. Area Work Plan <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No<br>Need of Hot Work & Fire<br>Isolation Permit <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No<br>Need of Site Storage <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No<br>Need of Hoarding <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No<br>Need Marking and Lighting <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |            |
| <b>Work Restrictions: NO OUTDOOR WORK</b> when RVR below 800m, typhoon signal 3 or strong wind signal is hoisted. Amber or RED thunderstorm warning is hoisted. All works performed shall comply with applicable Macao Legislation and rules in force in the airport and the subcontractor is liable to any damages to the airport properties for the work period as specified on this work permit.  |  |   |            |
| <b>Site Supervisor shall contact the following entities before start of work and conclusion of work on daily basis.</b><br><input checked="" type="checkbox"/> Airport Supervisor 88982501/ 66833057, <input checked="" type="checkbox"/> AOCC 28861111 Ext. 1111, <input checked="" type="checkbox"/> TCD 28861111 Ext 4129,<br><input type="checkbox"/> ATC (Trunk Mobile Radio) / 28860021, <input type="checkbox"/> Operations Safety Coordinator 88982029 / 66982991<br><input type="checkbox"/> Terminal Management Supervisor 88982834 / 62969998 |  |   |            |
| Applicant Signature  |  | Site Supervisor Signature   |            |
| Date: ____/____/____   |  | Date: ____/____/____  |            |
| Work Permit distributed to:  |  | <input checked="" type="checkbox"/> E&M, <input type="checkbox"/> SEC, <input type="checkbox"/> SAF, <input type="checkbox"/> ATC, <input checked="" type="checkbox"/> TMS, <input checked="" type="checkbox"/> AOCC, <input checked="" type="checkbox"/> Focus, <input type="checkbox"/> CTM<br><input type="checkbox"/> Contractor, <input type="checkbox"/> Supervision Company, <input checked="" type="checkbox"/> TCD   |            |
| Attachment distributed with work permit  |  | <input checked="" type="checkbox"/> MIA Site Rules - Revision (6)   |            |

Sample of Work Permit (back)



**Airport Operations Division**  
**Work Permit**

Serial No. \_\_\_\_\_

|   |                  |                      |
|---|------------------|----------------------|
| Safety Requirements:                    |                  |                      |
| SAF: _____                              | Signature: _____ | Date: ____/____/____ |
| Security Requirements:                  |                  |                      |
| SEC: _____                              | Signature: _____ | Date: ____/____/____ |
| ATC Requirements:                       |                  |                      |
| ATC: _____                              | Signature: _____ | Date: ____/____/____ |
| TMS Requirements:                       |                  |                      |
| TMS: _____                              | Signature: _____ | Date: ____/____/____ |
| Verified by:                            |                  |                      |
| OPS: _____                              | Signature: _____ | Date: ____/____/____ |
| Verified by:                            |                  |                      |
| OSS: _____                              | Signature: _____ | Date: ____/____/____ |
| Verified by:                            |                  |                      |
| EMD: _____                              | Signature: _____ | Date: ____/____/____ |
| Verified by:                            |                  |                      |
| AOP: _____                              | Signature: _____ | Date: ____/____/____ |
| Approved by:                            |                  |                      |
| ADR: _____                              | Signature: _____ | Date: ____/____/____ |
| Date of work conclusion: ____/____/____ |                  |                      |

All times in local with date format yyyy/mm/dd

Sample of Hot Work & Fire Isolation Permit



機場管理有限公司  
ADMINISTRATION OF AIRPORTS LTD.  
ADMINISTRAÇÃO DE AEROPORTOS, LDA.

| Hot Work & Fire Isolation Permit   |  |          |  | Permit No. _____              |  |
|--|--|----------|--|-------------------------------|--|
| 1, Site Location: ( <input type="checkbox"/> Maneuvering Area, <input type="checkbox"/> Apron, <input type="checkbox"/> Passenger Terminal, <input type="checkbox"/> Others _____ )  |  |          |  |                               |  |
| 2, The hot work that is covered by this permit: _____  |  |          |  |                               |  |
| 3, Work location _____   |  |          |  |                               |  |
| 4, The equipment to be used: _____   |  |          |  |                               |  |
| 5, The fire fighting equipment to be laid out at worksite: _____   |  |          |  |                               |  |
| 6, Name of contractor performing the work: _____   |  |          |  |                               |  |
| 7, Site Supervisor: (Name: _____ Contact No. _____)  |  |          |  |                               |  |
| 8, Supervision Company Name: _____ Contact No. _____   |  |          |  |                               |  |
| <div style="display: flex; justify-content: space-between;"> <div>Have combustible materials been removed from the work area or made safe?</div> <div><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</div> </div> <div style="display: flex; justify-content: space-between;"> <div>Have tanks, valves, vents and pipelines been blanked off or effectively isolated?</div> <div><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</div> </div> <div style="display: flex; justify-content: space-between;"> <div>Is ventilation adequate?</div> <div><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</div> </div> <div style="display: flex; justify-content: space-between;"> <div>Is the fire equipment checked and laid out ready for use?</div> <div><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</div> </div> <div style="display: flex; justify-content: space-between;"> <div>Is the wind direction satisfactory for hot work to be done?</div> <div><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</div> </div> <div style="display: flex; justify-content: space-between;"> <div>Has the site of the hot work been isolated and roped off?</div> <div><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</div> </div> <div style="display: flex; justify-content: space-between;"> <div>Is Airport RFFS been informed? (Name: _____)</div> <div><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</div> </div> |  |          |  |                               |  |
| Work Period: From _____  |  | to _____ |  | Daily Schedule _____ to _____ |  |
| <b>Isolation of Smoke Detectors / Sprinkler Systems.</b>   |  |          |  |                               |  |
| Request disable of smoke detector at above work location and schedule. <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A   |  |          |  |                               |  |
| Request disable of sprinkler system at above work location and schedule. <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A   |  |          |  |                               |  |
| Site Supervisor Signature: _____ Date: ____/____/____  |  |          |  |                               |  |
| <b>This hot work permit should be prominently displayed on the worksite</b>  |  |          |  |                               |  |
| <b>SAFETY OFFICE APPROVAL</b><br>The above-mentioned work is <input type="checkbox"/> approved <input type="checkbox"/> not approved<br><br>Name: _____ Signature: _____<br>Title: _____ Date: _____   |  |          |  |                               |  |
| Copy of this permit is distributed to below entities<br><input type="checkbox"/> SAF, <input type="checkbox"/> RFFS, <input type="checkbox"/> E&M, <input type="checkbox"/> TCD, <input type="checkbox"/> AOCC, <input type="checkbox"/> TWR, <input type="checkbox"/> FOCUS, <input type="checkbox"/> TMS, <input type="checkbox"/> Supervision Company   |  |          |  |                               |  |

All times in local with date format yyyy/mm/dd

Sample of Temporary Work Authorization

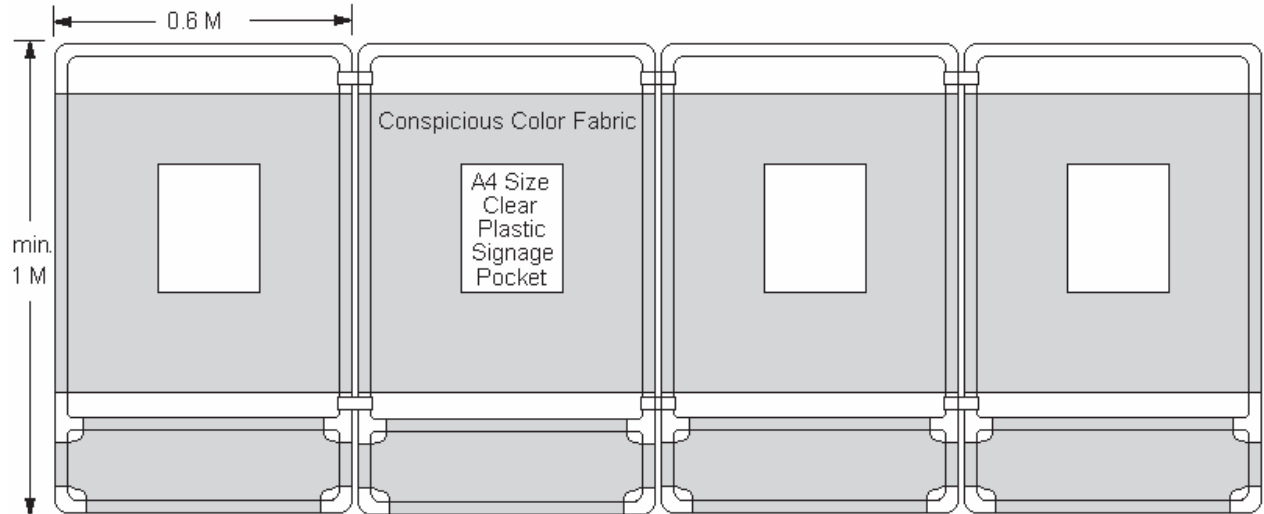
Airport Operations Division

Temporary Work Authorization

|  |   |
|--|---|
| Entity: _____<br>Email: _____  | Serial No.: _____   |
| Date / Time of work: _____   | Location: _____   |
| Description of works:  |   |
| <p><b>NOTE: AIRPORT SUPERVISOR MUST BE CONTACTED WHEN WORK STARTS/FINISHES</b></p>   |   |
| Contractor/Company: _____<br>Applicant: _____<br>24h Contact No.: _____  | Approved by: _____<br><br><input type="checkbox"/> Airport Supervisor<br><input type="checkbox"/> Operations Safety Coordinator |
| <ul style="list-style-type: none"> <li>• Applicant shall submit the requisition at least <b>48 hours</b> prior to work commencement to Airport Supervisor during non office hours / Operations Safety Coordinator during office hours.</li> <li>• After approved, the applicant and relevant entities will receive a copy of this Authorization by email.</li> <li>• For all urgent requests, please contact the Airport Supervisor by phone.</li> </ul> |   |
| Contact No. Non Office Hours : Airport supervisor 66833057 / 88982501<br>Office Hours: Operations Safety Coordinator 66982991 / 88982029<br>24-hour: AOCC 28861111 ext. 1111<br>Fax: No. 28861326 Email: airportsupervisor@ada.com.mo<br>opssafety@ada.com.mo  |   |

## APPENDIX B: ISOLATION OF WORK SITE

Worksite isolation or closure of facilities inside Passenger Terminal Building shall use standard indoor barrier which could display notice and warning signage to the public as illustrated below.



### Standard Indoor Barrier

The barrier shall be with minimum of 1 meter high and 0.6 meter wide for each partition. 4 partitions connected as a set. A clear plastic pocket on each partition to hold warning sign and notice for display to the public. 20 percent of the partition at the bottom shall be guarded to sustain debris and tools within the area.



## **APPENDIX C: SPECIFICATION OF THE NOTICE ON HOARDING**

Notice on hoarding shall be in a standard format and shall meet the following requirements and be approved by Operations Safety Coordinator prior to the actual printing.

### **Specification of the Notice on Hoarding**

The background of the hoarding is the curved blue strips and the shaded world map as below drawing.



Note: Center of the notification height shall be 1.5 Meter above the ground level

Standard notifications on Hoarding are as follows:

Group A:

澳門國際機場  
持續改善，提升服務  
Macau International Airport  
We are upgrading to provide you with a better service

Group B:

澳門國際機場  
Macau International Airport  
工程進行中，不便之處敬請原諒  
Work in progress  
We apologize for any inconvenience caused

Group C: The Logo of the Macau International Airport

Size of this notification shall be proportional to the size of the hoarding. A sample shall be submitted to Operations Safety Coordinator for approval.



機場管理有限公司  
ADMINISTRATION OF AIRPORTS LTD.  
ADMINISTRAÇÃO DE AEROPORTOS, LDA.

# **MACAU INTERNATIONAL AIRPORT**

# **TRAFFIC RULES & LICENSING REGULATIONS**

**MAY 2015**



## TRAFFIC RULES AND LICENSING REGULATIONS

### FOREWORD

This manual was conceived for established the Traffic Rules and Licensing Regulations applied to all persons and vehicles with access to restricted and controlled areas of Macau International Airport.

This edition supersedes all previous versions of Traffic Rules and Licensing Regulations or related procedures. Airport Director is the entity responsible for ensuring the compliance with the rules established in this manual.

All valid controlled copies shall bear the control stamp in red with the company name of Administration of Airports Ltd. If there is no control stamp on the document or the control stamp is not in red or the control stamp without ADA company name, it is NOT an authorized copy. Only controlled copies and softcopy in the ADA website are subject to automatic update, please contact your company representative for the most updated version of the booklet.

Elaborated by: 

Verified by: 

Approved by: 

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**DEFINITION**

|                                |   |
|--------------------------------|---|
| <b>Aircraft stand</b>          | A designated area on an apron intended to be used for parking an aircraft.  |
| <b>Airfield Permit</b>         | A permit, with the appropriate endorsement, entitling the holder to drive a motor vehicle; to communicate with TWR via TMR; and / or perform duty in the restricted and controlled areas of Macao International Airport (MFM).  |
| <b>Apron</b>                   | A defined area, on a land aerodrome, intended to accommodate aircraft for purposes of loading or unloading passengers, mail or cargo, fuelling, parking or maintenance.   |
| <b>Baggage Make-up Area</b>    | The area where checked baggage for departing and arriving flights is respectively loaded and unloaded into / from containers or onto / from baggage carts. Transfer baggage is also managed here.   |
| <b>Breakaway</b>               | Initial movement of an aircraft from a static position under its own power.   |
| <b>Controlled Area</b>         | Any area of the airport established by the Airport Authority to be used in support of an airport operation and as a complement of the security restricted area to which access is controlled in accordance with criteria detailed by the Appropriate Authority for Civil Aviation Security. |
| <b>Equipment parking areas</b> | Marked-off areas for parking equipment in the non-public operational areas.   |
| <b>Ground swing envelope</b>   | A marked area next to an aircraft parking position, where handling equipment is assembled prior to the arrival of an aircraft.  |
| <b>Guide vehicle</b>           | A vehicle with rotating lights used to guide aircraft or other vehicles (e.g. Follow-me).   |



|                                |  |
|--------------------------------|--|
| <b>Inspection Stamp</b>        | Stamp for a motor vehicle issued by the Airport Authority evidencing that the vehicle was approved on the technical inspection performed by Airport Authority.   |
| <b>Jet Blast</b>               | The high velocity movement of air behind a jet engine in operation.  |
| <b>Manoeuvring area</b>        | That part of an aerodrome to be used for the take-off, landing and taxiing of aircraft, excluding aprons.  |
| <b>Movement Area</b>           | That part of an aerodrome to be used for the take-off, landing, and taxiing of aircraft, consisting of the manoeuvring area and the apron(s).  |
| <b>Normal Working Hours</b>    | period from 09H00 to 13H00 and 14H30 to 18H00 from Monday to Friday except holidays.   |
| <b>Official Driver License</b> | A permit issued by the Administrative Authority of a Country or Territory in accordance with the Road Law, entitling the holder to drive a motor vehicle.  |
| <b>Permanent Access Card</b>   | A personalized identification permit, authorized by the Airport Director. The use and display of this card, is required to those persons who carry out activities in the airport in a stable and permanent basis for long period of time and who require a frequent and regular access to some or all Airport Restricted or Controlled Areas. They have a defined period of lifetime of three years. |

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|                             |   |
|-----------------------------|---|
| <b>Restricted Area</b>      | Airside areas of an airport which are identified as priority risk areas where in addition to access control, other security controls are applied. Such areas will normally include, inter alia, all passenger departure areas between the screening checkpoint and the aircraft, also known as the sterile area, the ramp, baggage make-up areas, including those where aircraft are being brought into service and screened baggage and cargo are present; cargo sheds, mail centres, airside catering and aircraft cleaning premises. |
| <b>Roadway</b>              | An established surface route on the movement area meant for the exclusive use of vehicles.  |
| <b>Security Area</b>        | Area of the airport, building or facility into which access is restricted or controlled for security and safety purposes.   |
| <b>Service road</b>         | An established surface route on the apron that intersects a taxiway or apron taxiway, marked by unbroken white lines, meant for the exclusive use of vehicles.  |
| <b>Taxiway</b>              | A defined path on a land aerodrome established for the taxiing of aircraft and intended to provide a link between one part of the aerodrome and another.  |
| <b>Vehicle Access Label</b> | Label for a motor vehicle to enter or park in MFM restricted areas.   |

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**ABBREVIATIONS**

|           |  |
|-----------|--|
| AACM      | Macau Civil Aviation Authority                       |
| ADA       | Administration of Airports, Ltd (Airport Authority)  |
| AOCC      | Airport Operations Co-ordination Centre              |
| CAM       | Macau International Airport Co. Ltd. (Airport Owner) |
| DPA / PSP | Airport Police                                       |
| E&M       | Engineering and Maintenance Department               |
| FGP       | Fixed Ground Power                                   |
| FIU       | Flight Information Unit                              |
| FOD       | Foreign Object Damage                                |
| GPU       | Ground Power Unit                                    |
| LVP       | Low Visibility Procedure                             |
| MFM       | Macau International Airport                          |
| OPS       | Airport Operations Service                           |
| OSS       | Operations Safety & Standards Service                |
| PSC       | Airport Private Security Company                     |
| RFFS      | Rescue and Fire Fighting Service                     |
| RTF       | Radiotelephone Facility                              |
| TMR       | Trunk Mobile Radio                                   |
| TWR       | Tower  |
| TWY       | Taxiway  |

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## CHAPTER 1 - BASIC CIRCULATION RULES

### 1.1 General

- 1.1.1 All vehicles circulating on the apron must at all time drive by the left and stay on circulation routes (roadways and service roads).
- 1.1.2 Vehicles moving from one aircraft stand to another or to any other area at the apron must use roadways and/or service roads. Exception is made to those moving between two contiguous aircraft stands.
- 1.1.3 Passengers can be transported only in vehicles licensed for that purpose.
- 1.1.4 The height limitation for vehicles circulating on Terminal Roadway under the loading bridge of apron area is 3.70 meters.
- 1.1.5 Every tow tractor may tow the maximum of six trailer units (three inside Baggage Make-up Area).
- 1.1.6 Ground vehicles must respect vertical and/or horizontal signs displayed at the apron.
- 1.1.7 Overtaking is forbidden on roadway under loading bridges and in front of Baggage Make-up area doors.

### 1.2 Speed Limit

- 1.2.1 Within the movement area:
  - 30 km/h for single vehicle
  - 25 km/h for vehicles with trailers non-equipped with proper brakes
  - 15 km/h for vehicles circulating inside Baggage Make-up area
  - 5 km/h within 15 metres of a parked aircraft

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### 1.3 Right of Way

1.3.1 Vehicles circulating at the apron have different priorities. From the major to minor, the priorities are the following:

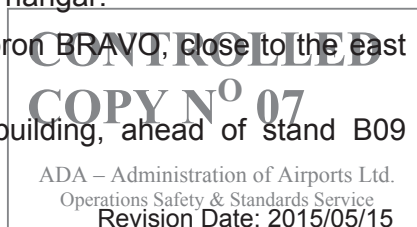
- (a) Aircraft taxiing under their own power or being towed
- (b) Follow-me, police and emergency vehicles proceeding with rotating lamp on
- (c) Guiding vehicles (e.g. Follow-me) proceeding with rotating lamp on, including the vehicles they escort, that are required to have their low beam headlights on
- (d) COBUS due to its big dimensions
- (e) Vehicles circulating on roadways and service roads over all traffic accessing to them
- (f) At road intersections or junctions, the left before right principle must be applied, unless prescribed otherwise by traffic signs
- (g) The left before right principle must be applied to traffic in all other areas

1.3.2 All vehicles proceeding with a red or blue rotating lamps and Follow-me vehicles proceeding with yellow rotating lamps on are exempted from speed limit and may leave the established roadways or service roads if necessary, when responding to an emergency. However, these vehicles must yield right-of-way to taxiing aircraft and aircraft under tow.

1.3.3 Vehicles leaving parking areas, aircraft stands and Baggage Make-up area must give way to those circulating on the roadways and / or service roads.

### 1.4 Roadways and Service Roads

|                       |  |
|-----------------------|--|
| Terminal Roadway –    | located at the West side of apron near the terminal building, ahead of aircraft stand. |
| Inner Roadway –       | behind aircraft stands at the West side of apron and the section south of stand B10.   |
| Tower Roadway –       | located at the East side of apron, ahead of aircraft stands.                           |
| Maintenance Roadway – | near maintenance building and maintenance hangar.                                      |
| East Roadway –        | located at apron BRAVO, close to the east fence.                                       |
| Cargo Roadway –       | near cargo building, ahead of stand B09 and B11.                                       |



|                               |   |
|-------------------------------|---|
| North Alpha Service Road –    | located at the North end of apron Alpha.  |
| Middle Alpha Service Road –   | located at apron Alpha, between stand A10 and A12.  |
| South Alpha Service Road –    | located at apron Alpha, between stand A01 and TWY C1.   |
| Bravo Service Road –          | located at apron Bravo, next to stand B03.  |
| North/South Connection Road – | located between stands A06/A04 and B06/B08 respectively. Both are 3 meters wide and connect the Terminal Roadway to the Inner Roadway. In order to provide enough clearance (7.5 meters) to wingtip of aircraft parked on A06/A04/B06/B08, the concerned Connection Road shall not be used until the aircraft comes to full stops, with chocks on and engines switch off. |

## 1.5 Driving within Baggage Make-up Area

- 1.5.1 Access to Baggage Make-up area to vehicles not related with loading / off loading of baggage is strictly forbidden.
- 1.5.2 Doors No. 3 or 4 are the access ways to the Baggage Make-up area. Exit doors are No. 1 and 2.
- 1.5.3 Access to Baggage Make-up area is restricted to vehicles maximum 2 meters height.
- 1.5.4 There are two circulation areas A and B inside the Baggage Make-up area. Each one with three circulation lanes as follows:

➤ Area A

- One off loading lane
- One by pass lane
- One loading lane

➤ Area B

- One loading lane
- One by pass lane
- One transfer baggage lane

- 1.5.5 Unless there is a justified need, dollies should be removed from Baggage Make-up area after the baggage loading / off loading.

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- 1.5.6 The traffic flow for Area A is from North to South while the traffic flow for Area B is from South to North.
- 1.5.7 To ensure healthy working environment, only electrical vehicles shall be operated inside Baggage Make-up area.

## 1.6 Procedure for Vehicle Accessing Apron

- 1.6.1 Owners of vehicles and equipment operating at the movement area must ensure that the insurance coverage for these vehicles and equipment is adequate for the operations within these areas. For applications and renewals, documentary proof is required.
- 1.6.2 Any access of vehicle to the apron shall be via Post Guard 2 and controlled by Airport Private Security Company. Any other Post Guards can only be used upon coordination between ADA OPS, PSC, DPA/PSP and Customs.
- 1.6.3 Vehicle with valid Permanent Vehicle Access Label can access the apron after clear the security inspection performed by PSC to the vehicle as well as to all persons inside the vehicle.
- 1.6.4 PSC staff at Post Guard 2 will deliver the Temporary Vehicle Access Label to the driver who required temporary access to the apron in exchange of an official document of the vehicle (e.g. owner registration or circulation license). These vehicles required Follow-me guidance inside the movement area at all times. The driver when exiting must return the Temporary Vehicle Access Label to the PSC staff to receive the vehicle document.

## 1.7 Procedure for Vehicle Accessing Manoeuvring Area

- 1.7.1 It is strictly forbidden to drive on runway, taxiways or peripheral roads unless authorized by TWR. Access and circulation to these areas are only allowed to drivers with a justified need to access the areas
- 1.7.2 All drivers circulate on the manoeuvring area are subjected to RTF training and all vehicles must be equipped with TMR or closely escorted by a TMR equipped vehicle. The drivers are responsible to keep monitoring the frequency at all times.
- 1.7.3 Vehicles circulate on the manoeuvring area shall comply with all lighting code (e.g. stop bar, intermediate holding position lights etc.) and shall keep the vehicle to the LEFT side of Taxiway or Runway around 1 meter from the centreline.

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- 1.7.4 Driving on manoeuvring area is allowed for tow trucks while performing push back and for special vehicles assisting aircraft (e.g. GPU, air starter) after TWR clearance and with Follow-me guidance.

## **1.8 Parking of Vehicles**

- 1.8.1 It is strictly forbidden to stop vehicles or equipment on service roads and roadways unless traffic signs require so. Exception is made to COBUS when taking passengers to / from the access boarding gates at the designated area.
- 1.8.2 It is strictly prohibited to stop and/or park on safety area (pavement area is painted with red stripes).
- 1.8.3 Electric vehicle charging points shall be reserved for parking and charging of electric vehicles only. No motor vehicle shall be permitted to park at any time in a space marked with “ADA FM Only”.
- 1.8.4 Vehicles must be parked with hand brake engaged or otherwise secured against uncontrolled rolling and only in the parking areas provided.
- 1.8.5 Clearance between two parked vehicles must be at least 50 cm.
- 1.8.6 Parking areas must be kept clean. Vehicle washing, engine oil changing or any other work on vehicles that may cause pollution is prohibited.
- 1.8.7 Any vehicle parked that obstruct aircraft, other vehicles or in such circumstances as to be likely causing danger, obstruction or undue inconvenience to other users may be removed at the owner's or operator's expenses.

## **1.9 Traffic Rules Supervision and Control**

- 1.9.1 ADA OPS is in charge of supervising and control the application of the traffic rules and regulations as stated in this booklet.
- 1.9.2 All personnel at the apron must cooperate with ADA OPS staff if asked for identification. In case of refusal, ADA OPS staff shall contact DPA/PSP that will identify the violator and keep the Permanent Access Card to be submitted by ADA OPS to the Airport Director for further penalty application.

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## CHAPTER 2 - BASIC SAFETY RULES

### 2.1 General

- 2.1.1 Any worker while on duty or for an adequate period of time before coming on duty is not allowed drinking intoxicating beverages. The same applies to medicine or drugs. The worker feeling drowsy which impair driving ability shall not drive.
- 2.1.2 Vehicles that are capable of extending or raising must be driven in the retracted or lowered position except when docking or aligning to the servicing aircraft. Hydraulic stabilizers on vehicles may be extended only after it has been ascertained that all persons are clear of the danger area.
- 2.1.3 Vehicles circulating on service road must stop (on stop marking) before crossing apron taxiway Alpha or taxilane Bravo to give way to aircraft taxing within 200 meters.
- 2.1.4 The use of sonorous signs is strictly forbidden, except when lost during low visibility conditions.
- 2.1.5 Vehicle circulating on Inner Roadway shall not overtake a taxiing aircraft.

### 2.2 Pedestrians

- 2.2.1 In areas marked by pedestrian crossings and in aircraft stand areas, drivers must watch especially for pedestrians. All vehicles and equipment shall reduce speed on approaching pedestrian crossings and stop to give way to anyone using such crossings.
- 2.2.2 Passengers embarking / disembarking on foot at aircraft stands A06 and B06 must be under supervision of Ground Handling Company Agent staff at all times. Either by means of passengers assisted guidance system or at least two staffs are required, one at the Terminal Roadway for stopping vehicle traffic and other guiding the passengers to/from the appropriate entrance/exit of the terminal. In the case that the aircraft rear door is used, additional staff or passengers assisted guidance system shall be placed in such a way that no passengers will walk under the aircraft wings or near the engines.
- 2.2.3 Walking on runway, taxiways, apron and peripheral road besides for the purpose of servicing an aircraft is only allowed with prior approval from AOCC or TWR,
- 2.2.4 During adverse weather conditions (i.e. strong winds, rain, thunderstorm or LVP in force), embarking/disembarking on foot at aircraft stands A06 and B06 is prohibited.



2.2.5 The use of umbrella on the movement area at any time is strictly prohibited.

### 2.3 Vehicle Safety and Lighting

2.3.1 During the hours of darkness or during limited visibility in day time (e.g. heavy rain or fog) or driving inside Baggage Make-up area, drivers must switch on the vehicles low beam headlights.

2.3.2 Driving with high beam headlights is prohibited on the movement area.

2.3.3 Vehicles circulating on the taxiways and runway must be fitted with and use flashing beacon on the top of the vehicle (including daytime) or guided by Follow-me at all times.

2.3.4 Before starting of duty, the driver must ensure that the vehicle is in roadworthy condition (check the tires, lights, oil leakage etc.). No vehicle shall be operated if it is not in a sound mechanical condition.

2.3.5 Passengers may only be carried in vehicles or mobile equipment having a place provided for that purpose. The number of passengers carried shall not exceed that authorized.

### 2.4 Equipment Parking Areas

2.4.1 Handling equipment must be stored preferably on the remote equipment parking areas. However, in case of operational convenience, the standby equipment areas marked in each aircraft stand may also be utilized for the same purpose.

2.4.2 After aircraft servicing and handling has been completed, aircraft position area must be cleared of vehicles and other obstructions without delay. This does not apply to standby equipment area.

### 2.5 Safety at Airport

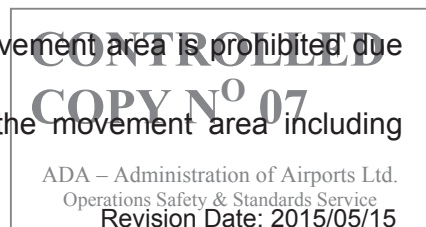
2.5.1 Points to remember:

- Never stop or park in the red striped area.
- Report all fuel, oil and other chemical spillage.
- Place all FOD in bins provided.
- Smoking (except in designated area), naked flames and open fire are strictly prohibited on the movement area.
- The wearing of metal shod shoes on the movement area is prohibited due to potential danger of sparks.
- All persons shall wear reflective vests on the movement area including Baggage Make-up area.

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- Vehicles circulate on the roadway near terminal building must pay special attention and precaution near the doors of Baggage Make-up area.
- Vehicles must not pass over any FGP cable or hoses lying on the ground.
- Special attention must be paid when driving on the North Alpha Service Road at the section with traffic sign showing “Stop – Jet Blast Area”.

## 2.6 Safety Around Aircraft

### 2.6.1 Points to remember:

- Never drive behind an aircraft with its engine running. (anti-collision lights on)
- Never walk or drive in front of an aircraft with its engine running. Allow at least 7.5m in front of an aircraft with its engine running.
- Never approach an aircraft until the “Marshaller” gives clearance. Indication shall be given only when the aircraft comes to full stop, with chocks on and engines switch off. Exception shall be granted to the mechanical engineer (headset man) after the aircraft comes to full stop.
- After the stair trucks or loading bridges have been retracted, no vehicles or equipment shall remain in the area of the emergency exits so that in case of need, the emergency slide can be extended without hindrance.
- Vehicles must not be driven under aircraft or aircraft wings, unless it is essential to perform specific assistance. In this case, the vehicle must be driven at slowest speed paying attention to height limitation.
- For reversal or back manoeuvres, drivers must ensure that the path is safe and free of obstacles. If the vision of the driver is obstructed, the person must ask for assistance to another person.
- Never leave vehicle unattended with the engine running.
- Any worker close to an aircraft with engines running must wear ear protectors.
- Wing walkers must be positioned in the proper locations of an aircraft stand for aircraft allocated to a stand adjacent to the Inner Roadway.

## 2.7 Precautions on Intake and Jet Blast

- 2.7.1 A safety distance of at least 7.5 meters must be maintained in front of running engines of stationary aircraft.
- 2.7.2 A safety distance of 125 meters behind and 200 meters in front of taxiing aircraft under their own power must be maintained.
- 2.7.3 The aircraft safety zone is delineated by an imaginary line running around the aircraft at a distance of at least 2 meters from the wingtips, nose and tail.

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- 2.7.4 No vehicles are allowed to stop or park within the above mentioned area except those that have to establish a direct connection with the aircraft for servicing, handling or technical maintenance. All other vehicles must be parked outside this zone.
- 2.7.5 The turning range of propellers must not be entered or driven through at any time.

## 2.8 Safety at Aircraft Parking Position Areas

- 2.8.1 Special attention must be paid to the aircraft stand about to be occupied by an aircraft. It can be recognized by the following conditions:
- The taxi-in area cleared up to the broken and unbroken red lines (boundaries of standby area);
  - Vehicles, handling and servicing equipment are standing by behind these lines;
  - Aircraft stands with loading bridges identified with amber rotating lamp switch on;
  - Aircraft docking system switched on;
  - Follow-me standby at the marshalling position;
  - Wing walkers position at the red boundary lines on both side of the stand.
- 2.8.2 It is strictly forbidden to interfere (vehicle or person) between aircraft and Marshaller during aircraft taxiing and/or parking manoeuvres.
- 2.8.3 Special attention must be paid to aircraft prepared for pushback manoeuvre to avoid any interference, it can be recognized by the following conditions:
- Flashing anti-collision lights on;
  - Engines running;
  - Chocks removed;
  - No vehicles and handling equipment in the immediate vicinity.

Note: For the case of Eva Air, if the mechanic gives a “clear to proceed” signal to the driver driving on the Inner Roadway, the vehicles can still pass behind the aircraft even the aircraft with anti-collision lights on.

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## 2.9 Refuelling Precautions

- 2.9.1 When aircraft are being refuelled, the pertinent safety rules must be observed. Vehicles must not stop in front or behind the refuelling truck to maintain clear exit path in case of emergency.
- 2.9.2 A safety zone with a 3 meters radius must be maintained cleared around the aircraft tanks vents by all vehicles with internal combustion engines and by all activities involving the possibility of sparks.

## 2.10 Actions in Case of Fuel Spillage

- 2.10.1 In the event of damage to the refuelling system or immediate danger of fire around the aircraft, give a strong press to the “Fuel emergency stop button” (located in front of each aircraft stand near the emergency telephone) to shut off the underground hydrant outlet, contact RFFS and AOCC immediately. Operation of this system at any aircraft parking positions will automatically shut down the entire fuel system.
- 2.10.2 In case of fire, after activating the “Fuel emergency stop button”, in a condition not endanger personal safety, use the fire extinguisher available on the stand to combat the fire.
- 2.10.3 Actions to be taken in case of a **fuel spillage with less than 2 meters** diameter are the following:
- Stop the refuelling;
  - Contact AOCC and RFFS immediately who should take the necessary actions to isolate the area;
  - Vehicles or persons must not interfere with the area;
  - AOCC will promote all required cleaning / washing measures together with the involved parties.
- 2.10.4 Actions to be taken in case of **fuel spillage with diameters more than 2 meters** are the following:
- Stop the refuelling;
  - Contact AOCC and RFFS immediately who should take the necessary actions to isolate the area;
  - Everybody on site must move at least 15 meters far from the edge of the spillage;
  - Vehicles or persons must not interfere with the area;
  - AOCC will promote all required cleaning/washing measures together with the involved parties.

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## 2.11 Actions in Case of Accidents Involving Persons and or Vehicles

2.11.1 Persons involved or observe an accident with injuries or damages to property must act as follows:

- Contact AOCC or Airport Supervisor who will inform DPA/PSP if necessary.
- To notify the Insurance Company following the procedures or mechanisms in force on their companies;
- Being witness to stay at the scene of accident until an officer of DPA/PSP or ADA OPS arrives and to provide all the factual information to DPA/PSP or ADA OPS on site.
- If there is a fire, contact RFFS immediately.

## 2.12 EMERGENCY Contact Numbers

| Entities  | Tel. / Ext.        |
|---|--------------------|
| Ambulance   | 28572222           |
| RFFS  | 7010               |
| DPA/PSP (on duty Graduate)                            | 28861162           |
| Airport Private Security Company (on duty Supervisor) | 2344               |
| AOCC  | 1111               |
| Airport Supervisor                                    | 66833057 /<br>2501 |

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## CHAPTER 3- SAFETY PRECAUTIONS UNDER ADVERSE WEATHER CONDITIONS

Special caution is required after dark, in adverse weather conditions and low visibility. All drivers must adjust their driving attitude, namely in terms of speed to the prevailing conditions.

### 3.1 Adverse Weather

- 3.1.1 All traffic must be reduced to the minimum required for the operation.
- 3.1.2 Additional attention must be paid if markings (e.g. traffic signs, stop lines, etc.) on the pavement are not clear.
- 3.1.3 In the event of strong winds and heavy rain, all vehicles and equipment not immediately used in such operations shall be parked and secured against free rolling. In the event that a tropical cyclone warning has been issued, all staffs shall concentrate on securing all equipment and/or vehicles.

### 3.2 Low Visibility Conditions

- 3.2.1 The implementation of LVP is announced by written means to airlines and is visible at all entrances to the apron.
- 3.2.2 No vehicle is allowed to enter the manoeuvring area unless needed for the purposes of guidance or inspection. Nevertheless it shall always be in radiotelephone communication with TWR and clearance to enter and circulate must be obtained.
- 3.2.3 Vehicles circulating on the manoeuvring area for the purpose above shall comply with lighting code rules (e.g. stop bar, intermediate holding position lights etc.)
- 3.2.4 During LVP, all vehicles must circulate with low beam headlights and rotating lamp on if equipped.
- 3.2.5 In a situation of lost (e.g. went off roadways, entering taxiways etc.), the driver shall communicate immediately the fact to competent department whom in turn must inform immediately ADA AOCC. The driver shall also try all means to signalize the vehicle (e.g. sonorous signals). ADA AOCC must inform TWR and all operation will be suspended until the vehicle is found.

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3.2.6 In LVP conditions, some roadways and service roads are subjected to the following restrictions:

- Part of North Alpha Service Road is closed;
- Tower Roadway is closed near Taxiway H and near Taxiway C1;
- East Roadway is closed near Taxiway C1;
- Vehicle drivers must choose the shortest route between two points following the roadways and service roads;
- Reversing and driving backwards is forbidden;
- Vehicles must reduce their speed.

### 3.3 Thunderstorm Conditions

3.3.1 Please refer to the External Circular(s) in force for actions required to be taken while AMBER and RED thunderstorm warning is being hoisted.

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## CHAPTER 4- VEHICLE ACCESSING AND DRIVING IN MOVEMENT AREA

### 4.1 Vehicle Access

- 4.1.1 No vehicle shall access or stay at the apron without a justified need and the Airport Director previous authorization (Airport Supervisor shall take decision on this matter after normal working hours).
- 4.1.2 Vehicles accessing to the apron to operate on a permanent basis require Permanent Vehicle Access Label issued by ADA OSS.
- 4.1.3 Vehicles accessing occasionally to the apron just require Temporary Vehicle Access Label delivered by the PSC staff at Post Guard 2 and Follow-me guidance.

### 4.2 Application for Vehicle Access Label

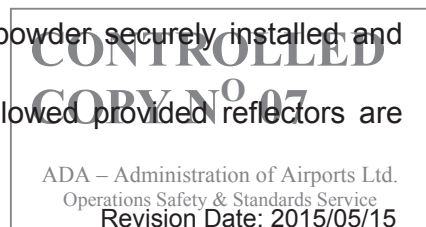
- 4.2.1 Application form for Permanent Vehicle Access Label is available at ADA OPS Dispatch office counter located at the FIU (Passenger Terminal Building South Departures staff channel) as well as through ADA webpage.
- 4.2.2 The application form together with documentary proof of enough insurance coverage for that vehicle to operate at the movement area must be submitted by applicant entity in written to the Airport Director for approval.
- 4.2.3 The issuance of Permanent Vehicle Access Label is subject to a charge established by AACM. CAM shall invoice the applicant entity upon received information from ADA Finance Division.

### 4.3 Vehicles Certification

- 4.3.1 The technical certification consists of approval in an inspection performed by ADA E&M. It is the recognition that the vehicle meets all road and airport technical requirements to access and operate at the apron.
- 4.3.2 The technical requirements are as follows:

**Mandatory:**

- Good road and operational conditions;
- The use of a flame suppresser on exhaust tube, for vehicles without catalyser;
- Fire extinguisher with 2.5 kg chemical dry powder securely installed and easily accessible for the driver;
- The operation of trailers without lights is allowed provided reflectors are installed on the back;



- The use of ties fitted with metal spikes or studs of similar type is prohibited;
- Vehicles designed to transport special goods (e.g. tanker trucks) must comply with corresponding Macau law and regulations;
- The use of amber rotating lamp on top of vehicle circulating at the manoeuvring area.

Recommended:

- The turning circle of all motor vehicles as narrow as possible.

4.3.3 Inspections shall take place at ADA Engineering Building (next to Catering Building). However for vehicles that cannot circulate out of the airport, inspections can be arranged to be done at the apron.

4.3.4 ADA OSS shall make evidence of the technical certification by issuance of an inspection stamp after received approval confirmation from ADA E&M.

#### 4.4 Vehicle Identification

4.4.1 Upon issuance of the Permanent Vehicle Access Label, the applicant entity is responsible to install the Vehicle Identification on the vehicle (or in a board) according to the dimension shown on the annex.

4.4.2 The vehicle identification consists of a five-digit number. The figures are black inscriptions on a white background for all vehicles. The first two digits identify the vehicle's entity and the other three designates the vehicle sequence number. The numbers must be displayed on both sides of the vehicle and visible at all times.

4.4.3 The Vehicle Access Label as well as the Inspection Stamp must be displayed at the windscreen visible at all times.

#### 4.5 Responsibilities of the Application Entity

4.5.1 The applicant entity and the driver must ensure the roadworthiness conditions of the vehicle at all time.

4.5.2 Both Permanent Vehicle Access Label and Inspection Stamp are valid for two years and the applicant entity is required to apply in written for the renewal to Airport Director at least one month prior to the expiry date.

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## CHAPTER 5 - QUALIFICATION FOR AIRFIELD PERMIT

### 5.1 Driving / Working in Movement Area

- 5.1.1 Any personnel who require to drive in the movement area in order to perform duty should:
- Possess a valid Driver License of the same class of vehicle recognized by the Official Services of the Territory.
  - Obtain Airfield Permit which signifies permission to drive in the apron and/or the movement area. The Airfield Permit must be carried by the holder during the period while they are operating vehicle and/or TMR in the movement area.
  - Personnel who do not possess the appropriate Airfield Permit must be accompanied and guided by a holder of Airfield Permit with appropriate endorsement(s) or Follow-me at all time.
- 5.1.2 Holder of permanent access card who does not require to drive but perform duty in the manoeuvring area should obtain Airfield Permit with the corresponding endorsement specified in 5.2.1.
- 5.1.3 The validity of the Airfield Permit will be two (2) years.

### 5.2 Application for Airfield Permit

- 5.2.1 When applying for the Airfield Permit, the applicant entity should indicate on the application form the endorsement(s) required by their employees, described as follows:
- “A” endorsement signifies permission to drive in the apron only.
  - “A” supplemented by “M” endorsement signifies permission to drive in the movement area. NOTE: “M” endorsement alone does not grant any permission to operate a motor vehicle but to carry out work in the manoeuvring area only.
  - “T” endorsement signifies permission to communicate with TWR via TMR. “T” endorsement must be supplemented by a “M” endorsement.
- 5.2.2 Only driver who hold an Official Driver License for more than six (6) months will be accepted for applying “A” endorsement.
- 5.2.3 Applicant applies for “A” endorsement shall submit a copy of an Official Driver License issued by DSAT (Transport Bureau). Non-resident applicant shall submit a copy of the Official Driver License from the country of issuance and a copy of “Temporary Authorization to Drive” issued by DSAT.

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- 5.2.4 Driver above 60 years of age is required to submit medical certificate and declaration stating the health condition of the staff from the applicant entity. Airport Director shall make the final decision on the issuance of the Airfield Permit.
- 5.2.5 Application form for request to drive in restricted area is available at the ADA OPS Dispatch office counter located at the FIU (Passenger Terminal Building South Departures staff channel) as well as through ADA webpage.
- 5.2.6 The application form must be submitted by applicant entity in written to Airport Director for approval. When applying for the Airfield Permit for their staffs, the employer should indicate on the application form the justifications for their need to drive in connection with their duties.
- 5.2.7 The compulsory training, driving theoretical and practical examination is subject to a charge established by AACM. CAM shall invoice the applicant entity upon received information from ADA Finance Division.

### 5.3 Training, Theoretical and Practical Test

- 5.3.1 Driver applying for “A” endorsement should attend the Safety Awareness Presentation conducted by ADA after the submission of application for Airfield Permit.
- 5.3.2 Personnel applying for “M” endorsement should attend the Aerodrome Safety Training conducted by ADA.
- 5.3.3 Personnel applying for “T” endorsement should attend the Radio Communications Training conducted by ADA.
- 5.3.4 Driver must be familiar with the rules stated in this booklet and train for the vehicle(s) or equipment they operate by the applicant entity.
- 5.3.5 Appointment for attending the Safety Awareness Presentation and examinations can be made via telephone between the applicant entity and ADA OSS, upon receipt of the completed application form and approved by Airport Director. In case the applicant fails to keep the appointment without prior notices, ADA will claim indemnity for the administrative costs incurred.
- 5.3.6 ADA OSS shall issue the Airfield Permit with the appropriate endorsement to an applicant who has attended the associated training(s) and passed both the theoretical and practical examinations.

### 5.4 Renewal of Airfield Permit

- 5.4.1 All drivers are required to retake the theoretical test and attend the training(s) as described in this section two months before the expiry date stated in the

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Airfield Permit. Should personnel fail to revalidate his “M” and “T” endorsement before the expiry date, he cannot perform duties associated with these endorsements after the expiry date.

- 5.4.2 Driver revalidates the “A” endorsement should attend the Safety Awareness Presentation before the renewal theoretical test.
- 5.4.3 Driver revalidates the “A” and “M” endorsement should attend the Safety Awareness Presentation and Aerodrome Safety Training in addition to the renewal theoretical test.
- 5.4.4 Driver revalidates the “A”, “M” and “T” endorsement should attend the Safety Awareness Presentation; Radio Communications and Aerodrome Safety Training in addition to the renewal theoretical test.
- 5.4.5 Personnel revalidate the “M” and “T” endorsement should attend the Radio Communications and Aerodrome Safety Training.
- 5.4.6 Personnel revalidate the “M” endorsement should attend the Aerodrome Safety Training.
- 5.4.7 If the driver / personnel fails to apply for the renewal on time or fails the prescribed theoretical test(s), the Airfield Permit will be cancelled.

## 5.5 Withdrawal of Airfield Permit

- 5.5.1 Holder of Airfield Permit when leaving their company or the Airfield Permit is not required, must request for the cancellation in writing to Airport Director.
- 5.5.2 In case the driver holding a valid Airfield Permit is moving from one company to another and is required to drive same type of vehicle within the same restricted area, a written request shall be sent to Airport Director who shall decide the issuance of a new Airfield Permit for the user with new company without taking the required trainings and theoretical / practical test.
- 5.5.3 Personnel who commits traffic offenses may also result in the withdrawal of Airfield Permit under the Driver Offence Points Scheme defined in this booklet.

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## CHAPTER 6 - DRIVER OFFENCE POINTS SCHEME

## 6.1 Driving Offence Points

| Traffic Violation | Offense  | Demerit Points | Clauses Ref. |
|-------------------|--|----------------|--------------|
| 1                 | Exceed speed limit <ul style="list-style-type: none"> <li>In excess of 20 km/h</li> <li>Between 11 – 20 km/h</li> <li>Between 1 – 10 km/h</li> </ul> | 3              | 1.2          |
|                   |  | 2              | 1.2          |
|                   |  | 1              | 1.2          |
|                   |  |                |              |
| 2                 | Failure to comply with direction of authorized person, etc   | 1              | 1.9          |
| 3                 | Failure to observe traffic signs or ground markings  | 1              | 1.1.6        |
| 4                 | Irregular circulation (e.g. driving outside the service road, overtaking where is not allowed, u-turn)   | 1              | 1            |
| 5                 | Illegal parking (e.g. parked vehicle on space marked “Electric Car Only” or “ADA FM only”)   | 1              | 1.8          |
| 6                 | Leaving vehicle unattended with the engine running   | 1              | 2.6.1        |
| 7                 | Left garbage on the apron  | 1              | 2.5.1        |
| 8                 | Left equipment inside aircraft stands  | 1              | 2.4.2        |
| 9                 | Smoking on apron (except in designated area)   | 1              | 2.5.1        |
| 10                | Failure to report vehicular accident (e.g. Hit and run)  | 3              | 2.11         |
| 11                | Failure to provide information or giving false or misleading statement   | 2              | 2.11.1       |
| 12                | Sitting other than on a passenger seat or standing in a section of the vehicle not constructed for standing purpose                                  | 2              | 2.3.5        |
| 13                | Walk or drive within 125 meters behind of a taxiing aircraft   | 2              | 2.7.2        |
| 14                | Perform duty / communicate with TWR via TMR in the manoeuvring area without Airfield Permit and appropriate endorsement                              | 2              | 5.1.1, 5.1.2 |
| 15                | Accident with other vehicle or ground equipment  | 3              |              |
| 16                | Driving without Airfield Permit and appropriate endorsement  | 3              | 5.1.1, 6.1.5 |
| 17                | Walk or drive within 200 meters in front of a taxiing aircraft   | 3              | 2.7.2        |
| 18                | Walk or drive within 7.5 meters in front of an aircraft with engine running within the stand   | 3              | 2.6.1        |
| 19                | Driving over any hose or cable lying on the ground (e.g. FGP cable or refuelling hose)   | 3              | 2.5.1        |
| 20                | Incident with aircraft   | 4              |              |
| 21                | Failure to give way to aircraft  | 4              | 1.3.1, 2.1.3 |
| 22                | Driving under influence of medicine, drugs or alcohol  | 4              | 2.1.1        |
| 23                | Accident with aircraft   | 5              |              |
| 24                | Driving during prohibition period  | 8              | 5.1.1        |
| 25                | Causing death by reckless driving  | 8              |              |

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- 6.1.1 Driving offence points are imposed independently for each offense committed irrespective of whether the offenses arise from the same incident, and will accumulate for a period of 12 months counting from the date when the offense being convicted. In addition, demerit points imposed to a driver who commits the same category of traffic violation will be doubled for the repeated offense.
- 6.1.2 The Airfield Permit of the driver who has incurred 3 points will be withdrawn and kept by ADA OPS, the driver will be disqualified from driving for a period of 10 days.
- 6.1.3 The Airfield Permit of the driver who has incurred 4 points will be withdrawn and kept by ADA OPS, the driver disqualified from driving for a period of 15 days. The disqualification period will increase to 1 month for any subsequent accumulation of 2 points within 12 months after the offense being convicted.
- 6.1.4 The Airfield Permit of the driver who has incurred 8 points in one incident or within 12 months will be withdrawn permanently.
- 6.1.5 In the case of driving without Airfield Permit, the offender will not be entitled to apply the Airfield Permit for a period of 6 months.

## 6.2 Retraining

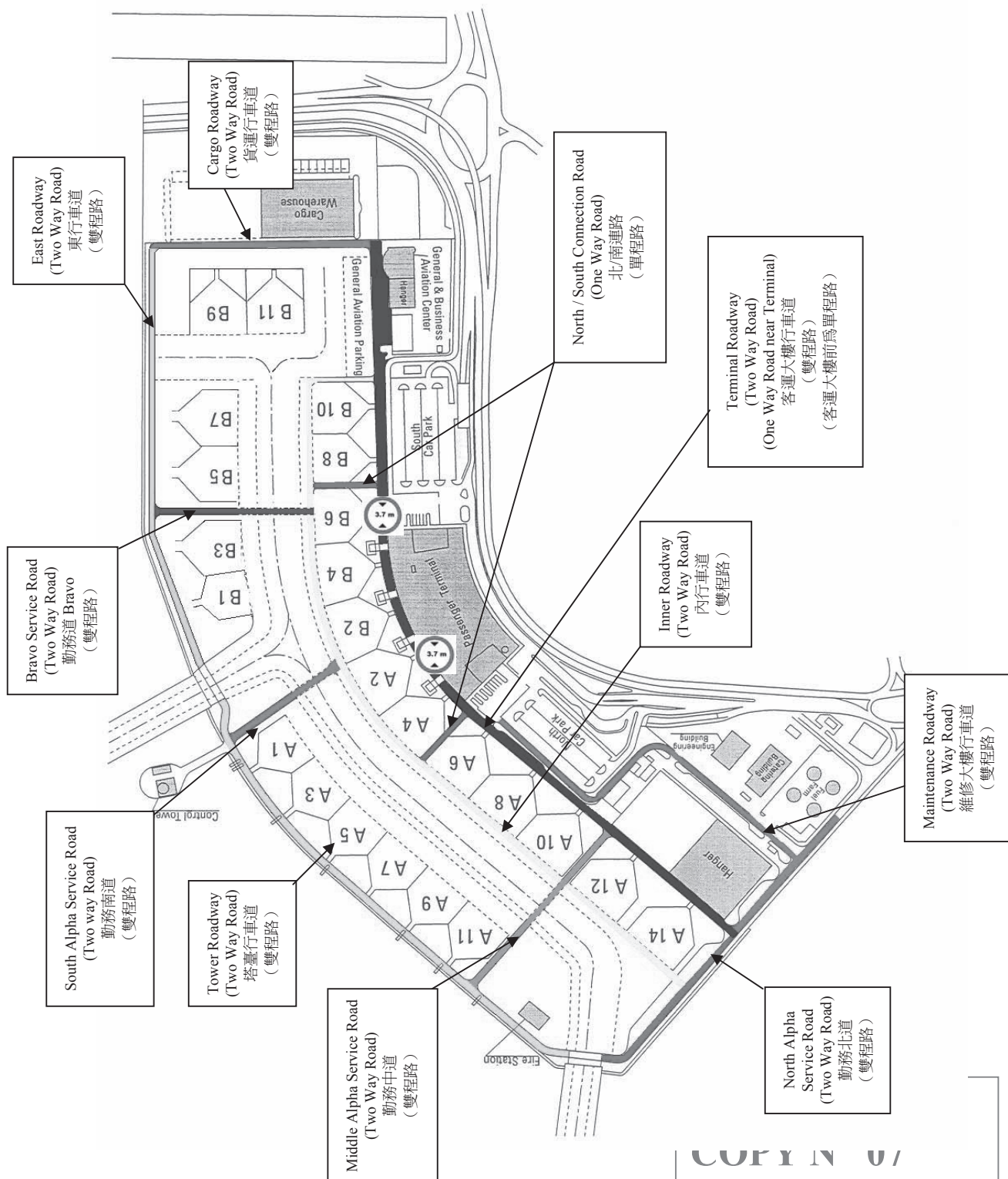
- 6.2.1 Driver who has committed driving offense and accumulated 3 points or more within 12 months will require to be retrained at the earliest instance by the company on the rules and regulations stated in this booklet. The driver must retake the theoretical test within 10 working days from the date of the offense being convicted. Failure to retake and pass the test will result in the permanent withdrawal of the Airfield Permit.

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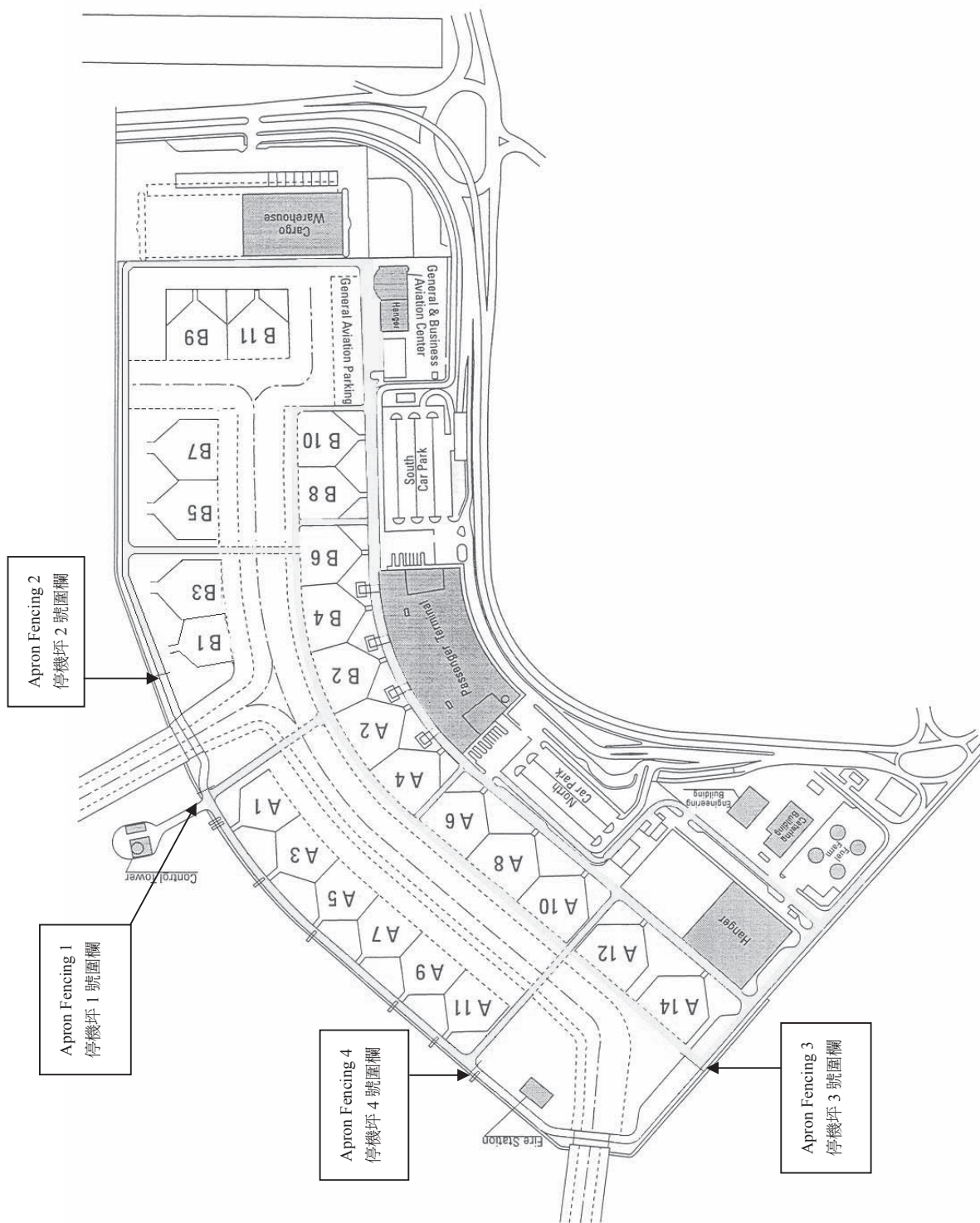


## ANNEX A – AIRPORT LAYOUT FOR GOOD VISIBILITY CONDITIONS

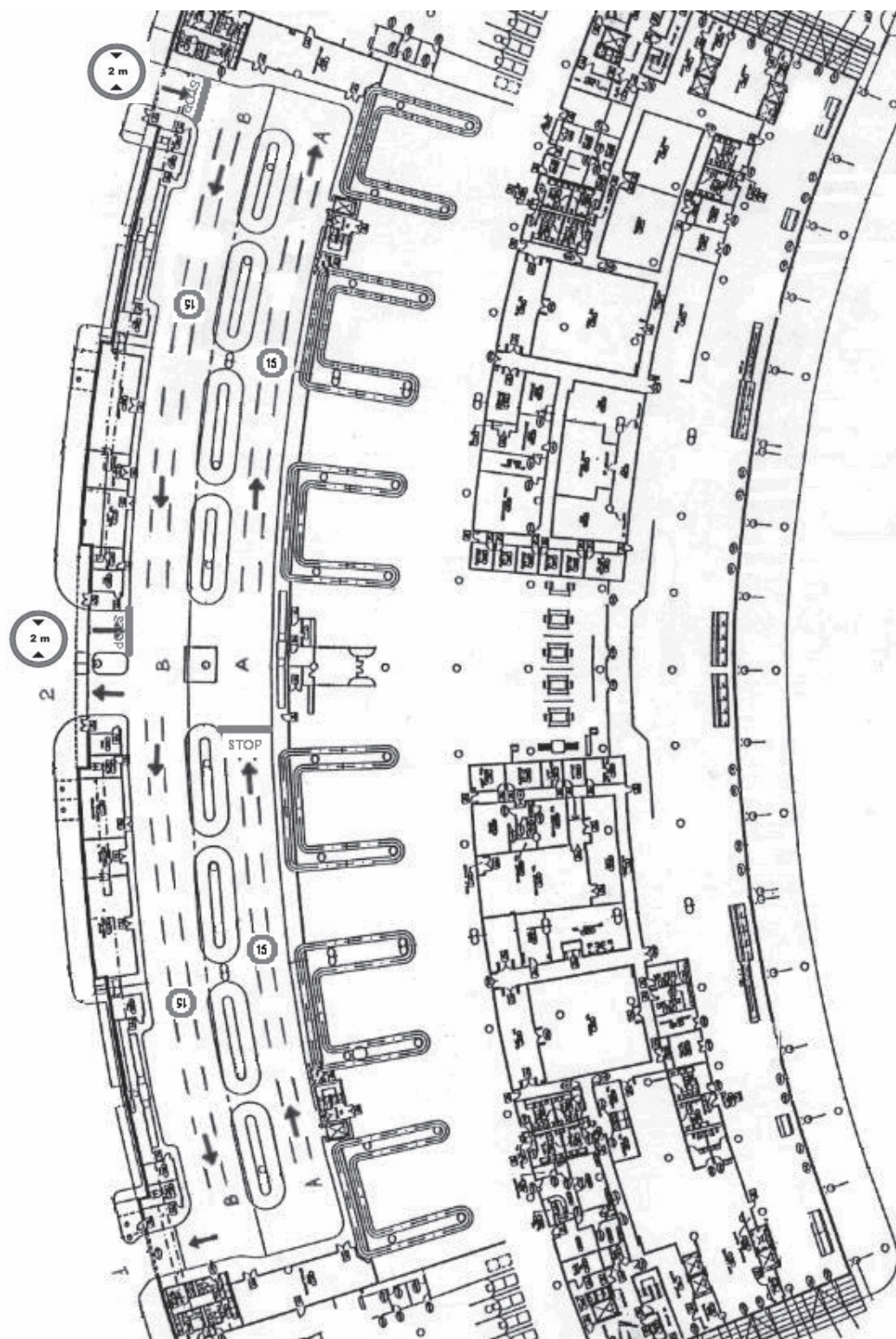




## ANNEX B – AIRPORT LAYOUT FOR LOW VISIBILITY CONDITIONS



## ANNEX C – BAGGAGE MAKE UP AREA LAYOUT



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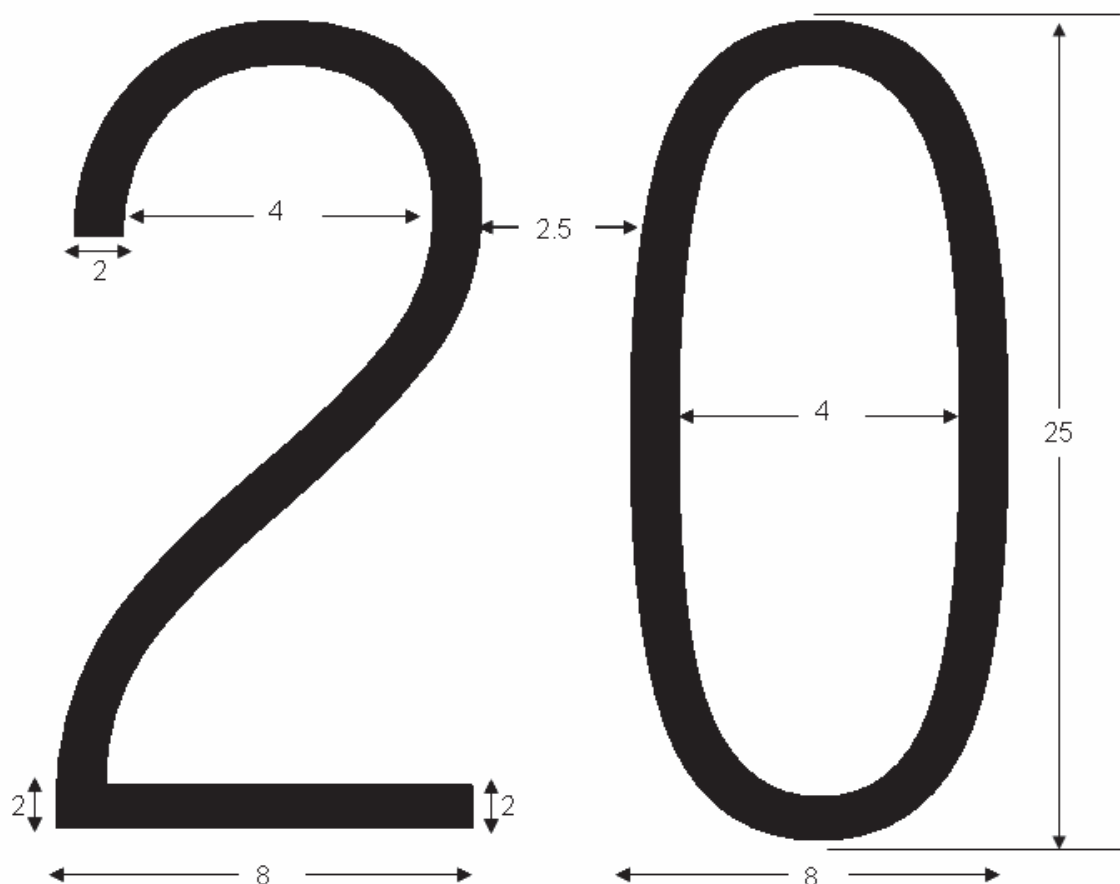
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## ANNEX D – VEHICLE IDENTIFICATION NUMBER DIMENSION



All dimension in centimetres.

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## ANNEX E – APRON MARKINGS AND SIGNS



Road Edge Line



Road Centerline



Road Edge Marking at Apron Taxiway Crossing



NO Parking Area



Zebra Crossing

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Headroom



Fuel Emergency Stop



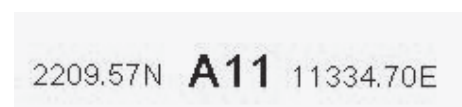
Airport Lightning Warning System



Fuel Pit



Jet Blast Area



Aircraft Stand Identification Sign

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## ANNEX F – SAMPLE OF AIRFIELD PERMITS

**AIRFIELD PERMIT**

Access Card:

|          |  |
|----------|--|
| ADA      |  |
| <b>A</b> |  |
|          |  |

Name: \_\_\_\_\_

Validity: \_\_\_\_\_

Holder is allowed to drive in apron ONLY.

**AIRFIELD PERMIT**

Access Card:

|          |          |
|----------|----------|
| ADA      |          |
| <b>A</b> | <b>M</b> |
|          |          |

Name: \_\_\_\_\_

Validity: \_\_\_\_\_

Holder is allowed to drive in apron and manoeuvring area.

**AIRFIELD PERMIT**

Access Card:

|          |          |
|----------|----------|
| ADA      |          |
| <b>A</b> | <b>M</b> |
| <b>T</b> |          |

Name: \_\_\_\_\_

Validity: \_\_\_\_\_

Holder is allowed to drive in apron and manoeuvring area and communicate with TWR via TMR.

**AIRFIELD PERMIT**

Access Card:

|          |          |
|----------|----------|
| ADA      |          |
|          | <b>M</b> |
| <b>T</b> |          |

Name: \_\_\_\_\_

Validity: \_\_\_\_\_

Holder is allowed to carry out work and communicate with TWR via TMR in manoeuvring area.  
NOTE: driving of motor vehicle is NOT allowed.

**AIRFIELD PERMIT**

Access Card:

|     |          |
|-----|----------|
| ADA |          |
|     | <b>M</b> |
|     |          |

Name: \_\_\_\_\_

Validity: \_\_\_\_\_

Holder is allowed to carry out work in manoeuvring area.  
NOTE: driving of motor vehicle is NOT allowed.

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