



# Maintenance Services (P&D and MVAC) for Cainiao Smart Gateway at Hong Kong International Airport

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Prepared for :  
Hong Kong Cingleot Investment Management Limited

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## 1. Introduction

### 1.1 Project description

A joint venture lead by Alibaba Group and including China National Aviation Holding Corporation (Hong Kong) Limited and Yuantong Express has been established to develop, manage and operate the Cainiao Smart Gateway at Hong Kong International Airport (the “Project”). Hong Kong Cingleot Investment Management Limited (hereinafter referred to as “Cingleot” or the “Employer”) is appointed by the joint venture to develop and manage the Project on behalf of the joint venture until the Project is handed over to the operator.

The Project is located at Kwo Lo Wan in Hong Kong International Airport (“HKIA”). The Project covers an area of 52,543 square meters, of which the main development area of the first handover is 46,671 square meters, and the deferred possession area is 5,872 square meters. When completed, the Project will comprise a 12-storey warehouse which will become the third largest warehouse in Hong Kong.

The new logistics centre, which is E-fulfillment hub (eHub), will benefit from the opportunities brought by the opening of the Hong Kong-Zhuhai-Macao Bridge in 2018 and the opening of the three-runway system in 2024. Establishing a major hub at such a convenient freight airport location is expected to make a significant contribution to the plan for e-commerce giants to expand their global reach and international delivery speed. The main development zone of the project was completed in September 2023 and accepted by the Buildings Department with Occupational Permit and the Airport Authority.



Figure 1-1 General View of the Site

In addition, this eHub is part of Alibaba Group - Cainiao’s global network to promote cross-border e-commerce between China and Europe. The eHub is a major element of Electronic World Trade Platform (eWTP) to realize global shipment under the mission of 72-hour worldwide delivery. The eWTP initiative’s goal is to build a more inclusive and innovative global trading platform for SMEs, young people and consumers. The eWTP was proposed by

Jack Ma in 2016 and was accepted as a major policy recommendation of the Business 20 (B20) and officially included in the 2016 G20 Leaders' Communique. The aim is to complement the work being carried out by the World Trade Organization (WTO) and reduce barriers making it easier for Small and Medium-sized Enterprises (SMEs) to expand their trading capabilities worldwide. This e-hub is anticipated to enhance overall logistics efficiency to help SMEs better manage their exports especially with the surge in global e-commerce.

## 1.2 About Cainiao Network

Cainiao Network, as the lead of this Project, is the logistics arm of Alibaba Group. It is dedicated to meeting Alibaba Group's logistics vision of fulfilling consumer orders within 24 hours in China and within 72 hours anywhere else in the world. It adopts a platform approach to establish a nationwide fulfillment network that leverages the capacities and capabilities of logistics partners to offer domestic and international one-stop-shop logistics services and supply chain management solutions, fulfilling various logistics needs of merchants and consumers at scale. Cainiao Network is a business of Alibaba Group.

## 1.3 General information of the building

- Total 380,000 sqm in the whole building
- Each floor is around 25,000 sqm usable area
- 11 levels consist of air cargo warehouse, regional distribution center (RDC) and office area
- A car ramp is connected from ground floor up to 12/F open-top car park
- Each floor of warehouse & RDC has 30-40 of different size of truck parking slots
- At 12/F car park, around 90 truck parking slot and around 300 private car parking slot
- Estimated hourly truck throughput is around 300 in peak hour

## 1.4 Purpose of this document

The Project Brief ("Brief") is aiming for the potential supplier to obtain the preliminary knowledge of the Project, including project overview, objectives and project requirements with focusing on its Maintenance Services (PD/ MVAC) as necessary for the completion of the Project at pre-qualification stage before tendering.

The project requirements stated in the Brief are the minimum requirements by Cingleot and Cingleot must be notified and approve all modifications to the Brief. The Brief does not intend to include all development and design issues and does not relieve the consultant teams, contractors, manufacturers, and suppliers of any contractual responsibilities.

## 1.5 General Project Scopes

### **MVAC**

The Contractor shall supply the whole of materials (except those if supplied by HKCIML) and technicians and skilled labour necessary for carrying out, including but not limited to, the following works or services to the Property, or any part thereof managed by or under the responsibility of HKCIML, during the Contract Term as ordered by HKCIML from time to time within the Contract Term.

The maintenance work shall include, but not limited to, the following in order to satisfy the requirement of this Contract.

- A. Maintain the entire works included in this Contract, take into account HKCIML's operational requirement.
- B. Replace or repair all component of equipment is necessary to maintain the installation in good working order, supply of material, provision of all normally consumable items, such as lubricants, cleaning materials, filters etc. and provision of labour.
- C. Maintain a log book for all equipment maintenance, repairing, replacement and inspection carried out. The log book shall be kept up to date and located in such a place that HKCIML's representative can inspect it at any time.
- D. Provide regular maintenance services as per following:

#### Monthly

- a) Clean all main equipment.
- b) Clean all filters.
- c) Function testing of installed system.
- d) Check energy performance of main plant and all AHUs and PAUs.
- e) Check conditions of main plant equipment.
- f) Water treatment including water sample testing, laboratory analysis report, adjust chemical feeding in accordance with the actual water situation.
- g) Submission of operational information of cooling tower of EMSD, including the provision of Form CT-3, water sampling test, and all associate maintenance and cleaning works.

- h) Check the condensate pan and pipework to ensure no blockage and at proper fall level.
- i) Check function of FCU/VRV/IDU,ODU.
- j) Check function of UPS system.

#### Quarterly

- a) Clean and lubricate all the relevant equipment accessories (e.g. bearings, shafts, screw, vibrator, gearbox, compressors and all mechanism).
- b) Clean all strainers.
- c) Clean all the equipment casing including motor.
- d) Clean tension and wear of pulley and belt, replace if required by HKCIML.
- e) Clean all air inlet/exhaust louvers and all air grilles.
- f) Check running current and energy performance of all equipment.
- g) Clean the cooling tower including the basin, in-fill, drift eliminator, internal casing, etc.
- h) Clean all FCU/VRV/IDU,ODU cooling coil.
- i) Check abnormal noise for FCU/VRV/IDU,ODU and verify.

#### Semi-annually

- a) Clean and replace all pump seals wearing ring and bearings that show signs of deterioration.
- b) Check coupling alignment and vibration isolator of all relevant equipments and make proper adjustment as necessary.
- c) Replace lubricating oil of all pumps and oil filter of chiller.
- d) Clean heaters, fan impellers.
- e) Check bearing alignment and impeller fixing.
- f) Clean all AHU/PAU cooling coil.
- g) Replace all disposable air filters.
- h) Replace and repair all electrical starters, switchgears, fuses and electrical accessories not functioned properly.

- i) Function testing of the equipment with BMS contractor.
- j) Calibration of the instrument with BMS contractor of installation.
- k) Same as item E.1 & E.2 of this Section of the Specification.

Annually

- a) Clean the condenser/evaporator copper tube internally of chiller as per manufacturer's recommendation.
  - b) Leakage test of condenser/evaporator piping of chiller and refrigerant equipment as per manufacturer's recommendation. Re-charge refrigerant as necessary.
  - c) Check and tune up all plants/equipment to ensure their function are in good working order as per manufacturer's recommendation.
  - d) Check and adjust all balancing valves to acceptable level.
  - e) Calibrate all sensors for MVAC.
  - f) Inspect and lubricate all fire dampers and issue the inspection certificate as per statutory requirements.
  - g) Comprehensive check for energy performance of the entire MVAC system.
  - h) Same as item E1, E2 & E3 of this Section of the Specification.
- E. Immediately answer all breakdown calls - the Contractor shall attend to such calls within a maximum time limit of two hours during non-office hours (22:00 to next day 07:00), and a maximum time limit of one hour during normal working hours (07:00 to 22:00).
- F. This Contractor shall be responsible to keep proper record of all the maintenance visits, items of works and repair carried out by them during the Contract Term.

**Plumbing & Drainage**

The work to be carried out under this Contract shall include the following:

- a) The Contractor shall dispatch competent and experienced engineers and technicians equipped with the appropriate testing instruments, tools, equipment to examine and inspect the Plumbing & Drainage system including minor repairing and no additional inspection cost for any Plumbing & Drainage equipment / fittings shall be incurred.
- b) After each routine inspection, testing and maintenance service, the Contractor shall

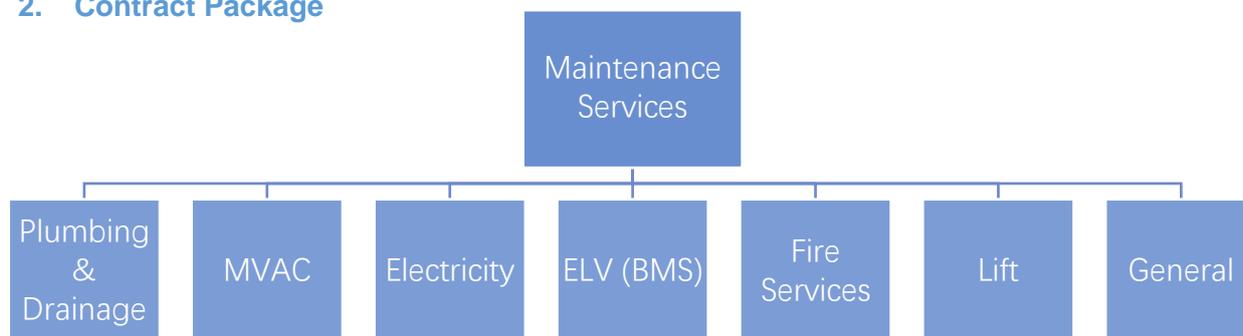
furnish all details into the logbook.

- c) The Contractor shall, at his own expense, make all suitable arrangements to avoid damage to property or installations provided by others during the course of his work. The Contractor shall be responsible for all losses and claims for injury or damage to any person or property arises out of or in consequence of the execution of the maintenance work.
- d) The Contractor shall arrange competent workers to the premises during normal working hours and at the times to be mutually agreed to inspect, clean, adjust, grease and lubricate whenever and wherever necessary or required, and exercise all reasonable care to maintain the Equipment in safe and proper operation condition.
- e) The Contractor shall render advice and assistance to the Employer or his representative in relation to the operation of the Plumbing & Drainage system from time to time whenever necessary at no extra charge.
- f) The Contractor shall maintain the performance characteristics of the equipment as originally designed and installed or as amended by mutual written agreement between the Employer or his representative and the Contractor.
- g) The Contractor shall give priority in its service, repair and manufacturing facilities restoring the equipment to normal service.
- h) The Contractor shall maintain current engineering wiring diagrams of the Equipment.
- i) All works and service provided for this Contract are to be performed during normal working hours on normal days except under the emergency service criteria.
- j) The Contractor has to formally advise the Employer or his representative whenever the suspension time of the Plumbing & Drainage equipment for repair to be more than one day and in addition, formal written notice not less than seven (7) days should be served to the Employer or his representative unless any emergency repair is required. The repair reason and duration are required to state clearly. Substantial proof must be provided the disorder comes within the scope of this Contract.
- k) The Employer or his representative shall report to the Contractor immediately when any disorder in the Equipment is discovered as soon as possible provided the disorder comes within the scope of this Contract.
- l) The Contractor will not be required to make safety tests other than as set out in this specification hereof nor to install any new attachments, nor carry out structural alteration of the building.
- m) The Contractor shall not liable for any loss and damage due to any cause beyond its reasonable control including, but not limited to acts of burglary, strikes, lockouts, fire

explosion, theft, floods, civil commotion, war, typhoon and vandalism.

The above scope is for reference only.

## 2. Contract Package



## 3. Tender Schedule

Below is the targeted tender schedule for P&D and MVAC Tenders:

Site Visit & Pre-communication Meeting	12 – 21 June 2024
Pre-tender Interview	24 – 28 June 2024
Tender Call	29 June 2024
Tender Return	29 July 2024
Tender Award	30 August 2024
Contract Commencement	30 September 2024