

**Sample specification for procurement of  
lift/escalator all-in comprehensive maintenance services**

The following sample tender specification for lift/escalator maintenance serves to assist building owners and management agencies to procure lift/escalator maintenance services.

Building owners and management agencies may consider using some of the terms and conditions contained in this sample specification for their own procurement documents for lift/escalator maintenance.

The sample specification is not meant to suit the needs of all building owners, and therefore should not be indiscriminately copied. In particular, it should be noted the figures relating to performance contained in the specification are requirements for specific buildings. Owners must carefully consider their own circumstances, needs and budget, and adjust the specification according to their own desired performance levels. Circumstances to consider will include specific user requirements on the quality and level of maintenance and emergency service, the necessity for avoiding service stoppage, the availability of professional representatives acting on behalf of the owner, and the financial situation of the building owner.

For all-in comprehensive maintenance contract, the maintenance contractor is required under the contract to provide all types of servicing, maintenance, repair and replacement as the need arises and within the contract sum, in order to maintain the lifts in a safe working condition in accordance with the statutory requirements, and meeting the quality and reliability requirement as stated in the maintenance contract, without any additional cost to the owner, with the exception of items that are exclusions expressly stated in the contract and mutually agreed between both parties (e.g. optional clause 2.6).

A Chinese translation is also provided.

Electrical & Mechanical Services Department

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## **Particular Specification for Maintenance of Lift and Escalator Installations**

### 1 GENERAL REQUIREMENTS

#### 1.1 General

The Contractor shall attend fault call, inspect, service, repair, maintain, modify, supply, install, test and commission the lift and escalator installation to meet the functional requirements of various areas of the accommodation. All materials, equipment and appliances shall be originated from the original or reputable manufacturers.

#### 1.2 Lift and Escalator Installation

The lift and escalator installation works shall comprise the design implementation, supply of the whole of the materials and labour necessary for carrying out the following works to the lift and escalator installations as listed in the Equipment Schedule and those subsequently added under covered by Works Order/Site Instruction:

- (a) Preventive and planned routine maintenance of the lift and escalator installations;
- (b) Attending emergency and/or fault call-out service;
- (c) Comprehensive maintenance and repairs of, modification, alterations and additions to lift and escalator installations;

#### 1.3 Site Visits before Submitting Tender

Before completing and submitting tenders, the tenderers are advised to visit the installation sites to appreciate and familiarize the extent of work.

#### 1.4 Shut-down of Lift and Escalator System

Shut-down of lift and escalator system at the premises or site concerned during execution of works shall be kept to minimum. The Contractor shall dispatch sufficient technical staff to execute diligently the works within a reasonable period of time.

If shut-down is deemed necessary, the following guideline must be observed:

- a) Shut down of any installation must be strictly on need basis and resumed as soon as possible.
- b) Avoid shut down all lifts or escalators within a building at the same time.

The Contractor shall be responsible for giving well in advance verbal and written notice to the Employer and the property manager or his representative on any shut down indicating the scheduled shut down period and the resumption of the system.

#### 1.5 Working Outside Office Hours

The Contractor shall allow for carrying out modification, inspection, service, testing, adjustment, maintenance and repair at a time outside normal office hours including public holidays, or when Rainstorm Black Warning or Typhoon Signal No. 8 or above is hoisted. This in particular applies to the emergency and “fault” call services.

#### 1.6 Log Book

The Contractor shall be responsible for maintaining a log book at each installation. The log book shall be provided by the Employer and kept at appropriate places on site by the Contractor. Every attendance and detail of work done to each installation shall be entered into the log book by the Contractor so as to form a maintenance record, and/or to certify the Contractor's attendance visits as required by this Contract.

The replacement of log books and their return to the Employer is the responsibility of the Contractor under the Contract.

#### 1.7 Stock of Spare Parts, Replacement and Use of Alternative Make

In the execution of servicing and maintenance, repair and operation work on site, apart from transport, necessary labour, tools, equipment, testing instruments, the Contractor shall also be responsible for keeping adequate stock of spare parts.

- (a) The Contractor shall keep adequate stocks of spare parts, equipment and other components which are necessary to maintain the safe and satisfactory working condition and operation order of the installation at all the times.
- (b) A permanent replacement of the genuine equipment, parts and/or components with alternative products shall not be implemented without good reasons, subject to the manufacturer's warranty that the safe and satisfactory working condition and operation order of the installation will not be affected due to the use of alternative make.

#### 1.8 Taking over of Existing Installations

The maintenance of the installations is currently carried out under a maintenance contractor. With effect from the commencement date of the Contract, the Contractor shall take over the above responsibility and shall carry out the Works for those existing installations in accordance with the requirements of this Particular Specification.

On taking over the maintenance of the installations, the Contractor shall carry out a periodic test/examination on each lift/escalator installation and submit a test/examination report to the Employer for every lift/escalator installation within two weeks from the date of commencement of contract.

#### 1.9 Handover of Installations to the Employer prior to the Termination or Expiry of the Contract

One month prior to the termination or expiry of the Contract, the Contractor shall arrange a schedule handover to the Employer for all Installations of the Contract. The Contractor shall ensure that the Installations are in good working order, safe and satisfactory operation condition at the time of handover.

#### 1.10 Contractor's Emergency Call Centre

The Contractor shall operate a Contractor's Emergency Call Centre to meet the following performance requirements : -

- (a) To confirm within 15 minutes the appointment date and time for execution of fault/emergency call requests received from the Employer or his representatives.
- (b) To monitor the progress of the fault/emergency call attendance and to report to the Employer or his representatives on any unattended appointment (including missed appointment and inaccessibility to the premises) and the subsequent remedial measure no later than 30 minutes of the originally scheduled appointment time.
- (c) To report the completion of fault/emergency call attendance within 1 day.

1.11 Information to be Submitted to the Employer

- (a) In all cases of overhaul, repair, modification, addition and/or improvement work, the Contractor shall obtain the approval from the Employer, and notify the Employer the date of commencement and tentative completion of the Works prior to the execution of the Works.

2 EXTENT OF WORKS

2.1 General Requirement

The Contractor shall provide the all-in comprehensive maintenance service and to maintain efficient and prompt response to breakdown, emergency call-out or complaint for the timely attendance of installation/equipment failure and/or unsatisfactory services. For all situations, the Contractor shall have staff on site within 1 hour (should be shortened to 30 minutes if reported passenger is trapped) to reset the system and rescue the trapped passenger after the receipt of call.

Upon receipt of a fault call, the Contractor shall arrive at the site of incident, rescue all the trapped passengers, check the installation and repair to resume the installation into normal working order in a speedy manner. Or, if the installation is beyond emergency repair, the contractor is required to make safe the installation and install a suitable notice indicating “Out of Service” at a prominent position and inform the Employer.

The Contractor shall properly, effectively and efficiently operate and maintain all the installation involved in the Contract for their reliable, satisfactory and safe operation.

The Contractor shall provide all transport, labour, material for the servicing, repair, or replacement at no additional cost to the Employer such unserviceable mechanical and electrical parts (except the repair and replacement of those parts which are damaged by misuse, vandalism, accident, fire and other causes which are beyond the control of the Contractor) of the installation due to normal wear and tear or at the end of their serviceable life for the normal operation of the installations.

The Contractor shall renew all wire ropes for all lift installations at no additional cost to the Employer due to normal wear and tear or at the end of their serviceable life. *(not applicable if clause 2.6 is used)*

In addition, the Contractor shall repair or replace at no additional cost to the Employer any part/component/equipment of an installation, which is proved to be defective by reason of the Contractor’s negligence, inadequate servicing and maintenance, poor performance and workmanship, use of incorrect materials or materials of inferior quality.

2.2 On-call Maintenance and Emergency Repair Services

The Contractor shall maintain Emergency Service Team(s) consisting of technically qualified, skilled and experienced technicians for prompt attendance of fault calls and to provide the On-call Maintenance and Emergency Repair Services (hereafter referred to as emergency services) 24 hours a day, 7 days a week throughout the year including Sundays and general holidays, rainstorm warning and typhoon periods.

2.2.1 Upon the receipt of a fault call, the Emergency Services Team shall arrive at the site of incident within one hour to reset the system and carry out immediate emergency services. Should any passenger is trapped as reported, the team should be arrived at site to release the trapped passenger within 30 minutes. For other faults not causing installation stoppages, the limit of arrival time could be extended to 24 Hours.

The emergency services shall include overtime works, all mechanical, electrical, and electronic works, and inspection, testing, adjustment, commissioning and cleaning which are found necessary to reinstate the safe and satisfactory working condition and operation order of the installation as soon as possible and within 24 hours.

2.2.2 In the case of happening of certain occurrences as detailed in Section 27A of the Lifts and Escalators (Safety) Ordinance (Cap 327), the Contractor shall immediately notify the Employer and the Director of Electrical and Mechanical Services on behalf of the Employer in writing of the occurrence and, after an investigation carried out by the Contractor, submit reports to the Employer and to the Director of Electrical and Mechanical Services on behalf of the Employer, in accordance with the detail requirements in the Ordinance.

2.2.3 For all major incidents that the Employer or his representatives consider necessary, the Contractor shall be required to submit major incident reports within 48 hours.

2.3 Performance Target on Maintenance Service

2.3.1 The “Service Availability” shall be evaluated as follows:-

$$1 - \frac{\text{Total downtime of lift/escalator installation(s) in (min.)}}{\text{Total operating time (min.)}} \times 100\%$$

Where

- *Total downtime - Total down times (min.) i.e, Total loss of operating hours of each lift/escalator counted for all lift/escalator failure, “System Withheld”, from all lifts/escalators in the premise during the concerned period, other than scheduled maintenance works*
- *Total operating time - Total operating time (min) counted for the sum of total normal operation of all lifts/escalators in the premise during the concerned period.*

2.3.2 The monthly system “Service Availability” shall be maintained and should not be lower than 99%.

## 2.4 Regular Inspection and Servicing

All planned maintenance works should be well planned, coordinated, equipped with sufficient staff and organized.

### 2.4.1 Scope of Inspection and Servicing

The Contractor shall dispatch competent and specially trained technicians to each installation regularly according to a Maintenance Schedule.

The Contractor shall report any defects that he notices with the building fabric, cladding or the lighting/power socket, ventilation/air-conditioning in machine room, etc. and report to the Employer for any necessary repair by others which is to be attended by the Contractor. The Contractor shall provide attendance to such repair work by others at no extra cost if such works are to be carried out during regular maintenance visits. However, if such work is required to be carried out outside regular maintenance visits, or during regular maintenance visits but has extra standby time incurred, the Contractor could be paid separately when agreed by the Employer.

## 2.5 Periodic Examination, Testing and Maintenance

### 2.5.1 General

The Contractor shall carry out periodic examination, testing and maintenance for every lift and escalator in accordance with the following:-

- (a) Lifts and Escalators (Safety) Ordinance, Cap. 327
- (b) Code of Practice for Lift Works and Escalator Works.

### 2.5.2 Submission of Programme

The Contractor shall submit his tentative programme covering the periodic examination and testing for all lifts and escalators for the whole contract year. The programme shall be formulated so as to minimize interruption of lift or escalator services and the inconvenience to the users.

### 2.5.3 Reports and Certificates

On completion of the periodic examination or periodic testing of safety equipment, the Contractor shall submit Form EMSD/LE11 for lift installations or Form EMSD/LE12 for escalator installations according to the Lifts and Escalators (Safety) Ordinance.

#### 2.5.4 Report on Equipment Beyond Economic Repair

For any installation considered beyond economic repair by the Contractor, the Contractor shall submit report certifying the equipment is beyond economic repair and the report shall include full description of extent of damage, cost for repair and the estimated remaining life if implementing repair.

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*(If necessary, the tenderer could be requested to provide a quotation for the replacement of the suspension ropes, for consideration when assessing the tender. It should be noted that although the cost of replacing the suspension ropes is outside the maintenance contract, the contractor shall exercise due diligence in servicing the ropes, e.g. making sure that the ropes are properly lubricated. The owner shall note that the service life of the ropes also depends on the intensity of usage, and the condition of the ropes should be regularly monitored to assess whether there is any need to replace the ropes to prevent rope breakage during normal operation. . Clause 2.6 can be inserted into the maintenance contract if the owner wishes to take out the replacement of suspension ropes as a provisional item and not within the scope of the maintenance contract)*

#### 2.6 Suspension Ropes as Optional Items

2.6.1 The contractor shall note that under this all-in maintenance contract, the replacement of the suspension ropes due to normal wear and tear will not be covered by the all-in maintenance principle. If the replacement of the ropes are considered necessary, the replacement cost shall be borne by the employer.

2.6.2 The contractor shall undertake to carry out adequate servicing and maintenance (including lubrication) of the suspension ropes in a professional manner to keep the normal wear and tear of the suspension ropes to a minimum.

2.6.3 The tenderer shall complete and submit the following schedule of rates together with the tender :

Item	Description	Unit Rate in HK\$
(i)	Comprehensive maintenance according to the tender specification (per month) but excluding replacement of suspension ropes.	
(ii)	Provision of labour and material for the replacement of one whole set of suspension ropes for one lift.	

The tenderer shall provide the specification of the rope(s) to be used, and shall quote separate prices where different lifts have different rope specifications/prices. The tenderer shall also specify the detailed criteria for determining when rope replacement is required in his tender offer.