

## **Sample Specifications for Procurement of Comprehensive Maintenance Services for Lifts/Escalators**

These sample tender specifications serve 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 document for preparation of their own lift/escalator maintenance procurement documents.

This document is not meant to suit the needs of all building owners, and therefore should not be indiscriminately adopted. In particular, it should be noted the figures relating to performance contained in the specifications are requirements for specific buildings. Owners must carefully consider their own circumstances, needs and budget, and adjust the specifications 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 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, without any additional cost to the owner, in order to maintain the lifts/escalators in a safe working order in accordance with the statutory requirements, and meeting the quality and reliability requirement as stated in the maintenance contract. There may however be exception of items that are expressly stated in the contract and mutually agreed between both parties (e.g. optional item under clause 2.6).

*[Chinese translation is also provided.]*

Electrical and Mechanical Services Department

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## **Specifications for Maintenance of Lifts /Escalators**

### **1 GENERAL REQUIREMENTS**

#### **1.1 General**

The Contractor shall attend fault call, inspect, service, repair, maintain, modify, test and examine the lifts/escalators to keep the lifts/escalators in a proper state of repair and in safe working order. All materials, equipment and appliances shall be originated from the original or reputable manufacturers.

#### **1.2 Lifts/Escalators**

The maintenance works shall comprise the supply of materials and labour necessary for carrying out the following works to the lifts/escalators as listed in the Equipment Schedule and those subsequently added under the cover of variation orders:

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

#### **1.3 Site Visits before Submitting Tender**

Before completing and submitting tenders, the Tenderers are advised to visit the location where the lifts/escalators are installed to appreciate and familiarize themselves with the extent of work.

#### **1.4 Shut-down of Lifts/Escalators**

Shut-down of lifts/escalators at the premises 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 lift/escalator must be strictly on need basis. Operation of the lift/escalator must be resumed as soon as possible after completion of the works.
- b) Avoid shutting down all lifts/escalators within a building at the same time.

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

#### **1.5 Working Outside Office Hours**

The Contractor shall allow for carrying out modification, inspection, service, testing, adjustment, maintenance and repair at times outside normal office hours, including public holidays. This in particular applies to emergency and fault call services.

#### 1.6 Log Book

The Contractor shall be responsible for maintaining a log book for the lifts/escalators. The log book provided by the Contractor shall be in the specified form required by the Lifts and Escalator Ordinance, Cap. 618 (hereafter called “the Ordinance”) and kept at appropriate places in the premises by the Contractor. Every attendance and detail of work done to each lift/escalator shall be entered into the log book by the Contractor.

The replacement of log books and their return to the Owner 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 the lifts/escalators, 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 lifts/escalators at all times.
- (b) Replacement of genuine equipment, parts and/or components with products, which are of an alternative make, shall not be implemented without good reasons, and subject to the manufacturer's warranty that the safe and satisfactory working condition and operation order of the lifts/escalators will not be affected due to the use of the alternative make.

#### 1.8 Taking over of Maintenance of the Lifts/Escalators

With effect from the commencement date of the contract, the Contractor shall take over the above responsibility and shall carry out maintenance for the lifts/escalators in accordance with the requirements of these Specifications.

On taking over maintenance of the lifts/escalators, the Contractor shall carry out a thorough examination on each lift/escalator and submit an examination report to the Director of Electrical and Mechanical Services (hereafter called “**the Director**”) for every lift/escalator within two weeks from the date of commencement of contract. A copy of the report shall be submitted to the Owner for record purpose.

#### 1.9 Handover of Lifts/Escalators to the Owner 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 scheduled handover to the Owner for all lifts/escalators of the contract. The Contractor shall ensure that the lifts/escalators 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 Owner or his representatives.
- (b) To monitor the progress of the fault/emergency call attendance and to report to the Owner or his representatives on any unattended appointment (including missed appointment and inaccessibility to the premises) and the subsequent remedial measures 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 Owner

In all cases of overhaul, alteration, addition and/or improvement work, the Contractor shall obtain the approval from the Owner, and notify the Owner the date of commencement and tentative completion of the works before any works is commenced.

## 2 EXTENT OF WORKS

### 2.1 General Requirement

The Contractor shall provide comprehensive maintenance services and maintain efficient and prompt response to breakdown, emergency call-out or complaint for the timely attendance of 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 for reported passenger entrapments) to reset the system and rescue the trapped passenger after receipt of calls.

Upon receipt of a fault call, the Contractor shall attend to the incident, rescue all the trapped passengers, check the lifts/escalators and repair to resume the lift/escalator into normal working order in a speedy manner. Or, if the normal use and operation of the lift/escalator involved in the incident has to be suspended for a long period of time for investigation, repair, or maintenance, the Contractor is required to take all necessary safety measures to prevent injury to any person and damage to any property and inform the Owner.

The Contractor shall properly, effectively and efficiently operate and maintain all the lifts/escalators under in the contract for their reliable, satisfactory and safe operation.

The Contractor shall provide all transport, labour and materials for the servicing, repair, or replacement of any components of the lifts/escalators at no additional cost to the Owner 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 lifts/escalators due to normal wear and tear or at the end of their serviceable life for the normal operation of the lifts/escalators.

The Contractor shall renew all wire ropes for all lifts at no additional cost to the Owner 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 Owner any part/component/equipment of a lift/escalator, which is proved to be defective due to 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 provision of 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.

2.2.1 Upon receipt of a fault call, the Emergency Services Team shall attend to the incident within one hour to reset the lift/escalator and carry out immediate emergency services. Should any passenger be trapped as reported, the Emergency Services Team shall arrive at the scene to release the trapped passenger within 30 minutes. For other faults not causing suspension of lift/escalator services, the limit of arrival time could be extended to 24 Hours.

2.2.2 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 lift/escalator as soon as possible and within 24 hours.

2.2.3 In the case of an incident specified in Schedule 7 to the Ordinance involving the lift/escalator, the Contractor shall immediately notify in a specified form the Owner and the Director on behalf of the Owner, of the incident. The Contractor shall cause a registered engineer to prepare and submit to the Director a full investigation reports in the specified form and have a copy of the report submitted to the Owner. All correspondence relating to the incident issued to the Director by the Contractor shall be copied to the Owner.

## 2.3 Performance Target on Maintenance Service

2.3.1 The "Service Availability" shall be evaluated as follows:

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

Where

- *Total downtime - Total downtimes (min.) i.e, Total loss of operating hours of each lift/escalator counted for all lift/escalator failures, "System Withheld", from all lifts/escalators in the premises during the period concerned, 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 premises during the period concerned.*

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

## 2.4 Regular Inspections and Servicing

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

### 2.4.1 Scope of Inspections and Servicing

The Contractor shall dispatch competent and specially trained technicians to service the lifts/escalators regularly according to a Maintenance Schedule.

The Contractor shall report any defects that it notices with the building fabric, cladding or the lighting/power socket, ventilation/air-conditioning in the machine room, etc. and report to the Owner for any necessary repair by others. 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 Owner.

## 2.5 Periodic Examination and Maintenance

### 2.5.1 General

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

- (a) Lifts and Escalators Ordinance, Cap. 618
- (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 for all lifts/escalators for the whole contract period. 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 of the lifts/escalators, the Contractor shall be responsible for submitting, the statutory forms to the Electrical and Mechanical Services Department including payment of the prescribed fees, on behalf of the Owner for the Use Permits required for the continuing use and operation of the lifts/escalators, and posting of Use Permits. .

### 2.5.4 Report on Equipment Beyond Economic Repair

For any lifts/escalators considered beyond economic repair by the Contractor, the Contractor shall submit a report certifying the equipment is beyond economic repair and the report shall include full descriptions of the extent of damage, cost for repair and the estimated remaining life if the repair is implemented.

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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 outside the scope of the maintenance contract.]*

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## 2.6 Suspension Ropes as Optional Items

- 2.6.1 The Contractor shall note that under this maintenance contract, the replacement of the suspension ropes due to normal wear and tear will not be covered. If the replacement of the ropes is considered necessary, the replacement cost shall be borne by the Owner.
- 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 specifications (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 specifications 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.