



OFFICE OF THE SUPERINTENDING ENGINEER
WORKS ESTABLISHMENT SECTION
NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA, SURATHKAL
POST SRINIVASNAGAR, MANGALURU – 575025 (DK)



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No: 596/Lift-AMC/2023-24/DM

Date: 10-11-2023

NOTICE INVITING QUOTATIONS

The National Institute of Technology Karnataka, Surathkal (in short - NITK, Surathkal or Institute) is an autonomous Institute of the Govt. of India [under the Ministry of Education - MoE] imparting technical and science education. The Institute intends to **“Providing Comprehensive Annual maintenance for the 2 No's of Johnson make 20 Passenger Lift (elevators) installed at COE building in NITK Surathkal”** The details of work is listed in the sheet enclosed. In this connection, sealed quotations are invited by the undersigned subject to the terms and conditions enumerated here under from the manufacturers/ authorized dealers/ agencies so as to reach this office on or before **23-11-2023 at 03:30PM**. The quotations shall be opened possibly on the same day.

Minimum eligibility criteria:-

The intending bidder must satisfy all the following requirements.

1. The bidder must possess valid registration of 'Manufacturer or Maker or other person for installation and maintenance of Lifts/ escalators' issued by the Chief Inspectorate of Lifts, Escalators and Passenger Conveyors/ Chief Electrical Inspector to Government, Department of Electrical Inspectorate, Govt. of Karnataka issued under Karnataka Lifts, Escalators and Passenger Conveyors Act. A copy of registration should be submitted.
2. The bidder must possess GST registration – A copy should be submitted.
3. The bidder must possess PAN registration with Income Tax department – A copy should be submitted.
4. The bidder must be registered under Employees Provident Fund (EPF) Act – A copy should be submitted.
5. The bidder must be registered under Employees State Insurance (ESI) Act – A copy should be submitted.
6. The bidder must have the experience of having successfully completed similar work as follows during the past seven financial years in any Central Government department/ State Government department/ Central or State Government undertakings/ Central or State government autonomous bodies/ Public or Private Sector Units/ Private firms Central Government department/ State Government department/ Central or State Government undertakings/ Central or State government autonomous bodies/ Public or Private Sector Units/ Private firms:

At least 3 single similar completed works, each of not less than 13-passenger capacity;

Similar work means comprehensive maintenance of lifts / Escalators / Passenger conveyors in Government Departments/ Government Undertakings/ Public sectors/ Private sectors/ Private Organizations or private Firms.

Self-attested copy of Work Experience/ Work done certificate issued from Central Government department/ State Government department/ Central or State Government undertakings/ Central or State government autonomous bodies/ Public or Private Sector Units/ Private firms (with copy of TDS certificate in case of Private firms) should be uploaded. Work Orders/ agreements shall not be treated as Work Experience/ Work done Certificate. The bidders seeking exemption from the requirement of previous experience may upload MSME (of relevant NIC & Activity)/ NSIC/ Startups registrations. Exemptions shall be allowed as per the provisions available in the relevant MSE Orders.

7. The bidder must have following minimum staff on regular employment in his Roll:

- I) One Graduate Engineer (Mechanical Degree holder) with 2 years of experience OR Diploma in Mechanical Engineering with 4 years of experience in erection/ maintenance of lifts or escalators or passenger conveyors
- II) One Graduate Engineer (Electrical Degree holder) with 2 years of experience OR Diploma in Electrical Engineering with 4 years of experience in erection/ maintenance of lifts or escalators or passenger conveyors.
- III) Two numbers of ITI holder Electrician Trade with Wireman Permit with 3 years of experience in erection/ maintenance of lifts or escalators or passenger conveyor
- IV) Two numbers of ITI holder in Fitter trade with 3 years of experience in erection/ maintenance of lifts or escalators or passenger conveyors
- V) Two numbers of ITI holder Electronic Mechanic or Instrumentation with 3 years of experience in erection/ maintenance of lifts or escalators or passenger conveyors

Documentary proof not older than two months (copy of Wage slip/ muster roll/ EPF payment vouchers/ any other document evidencing their appointment/ Notarized affidavit indicating the name of the staff) shall be submitted.

Terms and conditions:

1. The intending bidder shall quote his rates in the '**Quotation Format**' enclosed here with either in his letter head or using the same format. He shall sign each page with seal of the firm. Envelop super scripted as Quotation for **"Providing Comprehensive Annual maintenance for the 2 No's of Johnson make 20 Passenger Lift (elevators) installed at COE building in NITK Surathkal"** due on **23-11-2023 at 03.30PM** and addressed to as "The Superintending Engineer, NITK, Surathkal, Post Srinivasnagar, Mangaluru – 575025" be sent so as to reach this office on or before the due date mentioned.
2. The GST registration number and the PAN number of the bidder shall be mentioned in the quotation. Quotation without this information will not be accepted.
3. Quotation may be dropped in the Tender Box kept in the office or may be sent by post/ courier. It is the responsibility of the bidder to make sure that the quotation is delivered in time. The quotations received after the due date will not be entertained.
4. No advance payment will be made. The payment shall be made only after successful completion of work. No interest will be paid for delayed payments if any.
5. The rate quoted should be firm. No claim for enhancement of rate is admissible after opening of the Quotations.
6. Terms and conditions stipulated in this Notice inviting conditions are binding on the bidder.
7. The undersigned reserve the right of rejecting all the quotations without assigning any reasons thereof.


 Superintending Engineer
 NITK, Surathkal
 Work Establishment Section
 National Institute of Technology Karnataka
 Surathkal, P.O. Srinivasnagar- 575025

Scope of Work for the Comprehensive Maintenance Contract

- 1) The broad objectives of the comprehensive maintenance services for lifts (elector-mechanical equipment) are to ensure the equipment(lifts) installed at above mentioned building of the institute that it always functional and maintained to achieve optimum life and safety. To ensure safety of the users, required measures are to be taken and consistently maintained for efficient operations.
- 2)The contractor shall carryout comprehensive maintenance including preventive maintenance of various capacities of lifts (Pass anger and goods) installed in above mentioned building at the institute campus including cost of genuine spare parts and the other consumable items through trained personnel and also to provide the services of trained lift operations as specified in the bill of quantities.
- 3)The agency shall see that the Lifts are properly working as per the norms of Karnataka lifts, escalators and passenger conveyors Act & Amendments and Rules framed thereunder.
- 4)The contractor shall provide trained and qualified engineers and technicians to provide the routine maintenance, examination and lubrication service once in a month during the normal business hours. The cost of lubricants, cleaning materials, hydraulic fluid, machine gear oil, spare parts tools and plants required for regular maintenance shall be borne by the contractor
- 5)All the components shall be checked for its proper functional and rectified immediately. The rectification work shall include cost of spares parts also.
- 6)The contractor shall diagnose the faults and rectify the defect detected in reasonable time with minimum down time; and shall repair/replace the faulty parts of the equipment.
- 7)Any part of the Lift required to be taken for the service center for repairs, proper out-pass should be obtained from the Engineer in charge of the work and intimated while bringing it back.
- 8)The contractor shall see that maintenance of lifts shall be in conformity with manufacturers maintenance manual of respective lifts.
- 9)The contractor the maintain the Log book for each lift.
- 10)The contractor shall submit periodic (monthly/quarterly/annually as the case may be) compliance report (Service report) to the Engineer in-charge of the work.
- 11)The contractor shall attend to the complaints immediately on receipt of the complaint cum fault Docket from the Engineer in charge of the work.
- 12)The contractor shall amend to any Lift Operational problems and rectify the defects within the. time limit follows:

Minor/Medium rectification works: Within 24 hours of receipt of the Complaint's Fault Docket from the Engineer in charge of the work.

Minor/ Medium rectification means (but not limited to): Repair /replacement of switches sockets pi miscellaneous electrical/mechanical, miscellaneous repair /rectification works including cleaning of contacts, contact points, earthing points and filters etc, replacement of eyelets, socket, lugs &. gaskets etc.' in panels or motors.

Major rectification means: within 72 hours of receipt of the complaint cum Fault Docket from the Engineer in-charge of the work.

Major rectification means (but not limited to): Repair / replacement of Transformers, Steel suspension ropes and other major components.

However, in case of any doubt in classification of rectification work, contractor can give technical justification and ask for extra time for approval of Engineer in-charge who will have power to grant such extra time/ change the classification of rectification work depending upon the correct technical justification and a reasonability of time scheduling for such extension/ change of classification of a particular rectification work.

Time limit for other Fault call services is as indicated in Para 20.14.2.

In case the contractor fails to rectify the defect(s), beyond seven days the Institute reserves the right to get the defect(s) rectified at risk and cost of the contractor without further notice and will charge 30% extra on the actual expenditure incurred (material, manpower, machinery etc.) and the contractor is obliged to remit the same, failing which the same shall be deducted from his bills payable. In such an event, the institute reserves their right of termination of contract also.

13) The contractor shall present during the inspection of the Lifts by the Governmental authorities and assist the Institute in replying their observations, if any.

During the inspection of Lifts by Electrical Inspectorate, if any defects, modifications and new alterations if any suggested by the competent authority, the same has to be delivered/replaced/modifications should be attended without any extra cost and the same should be reported to the office.

14) The contractor shall furnish the names, locations, complete postal address, telephone numbers and e-mail address of all technical support centers and also alternate contact persons. Any change in the above details shall have to be intimated in writing by the contractor.

15) Any damages caused by the Contractor in existing facilities while carrying out the work shall be made good by the contractor

16) All dismantled / replaced parts should be handed over to the Institute's Engineer in-charge.

17) The contractor and his workers must strictly take all safety precautions and shall wear safety appliances like hand-gloves, safety boots, safety belt, safety helmets, duster cloth, dust mask etc. They shall wear uniforms while on duty.

18) The contractor shall take adequate safety precaution to prevent accidents at site. The contractor shall also ensure that his workers observe the statutory safety rules and regulations and also those laid down by the employer from time to time and promptly submit report of accident and state the measures taken by him to prevent their recurrence and also keep the employer indemnified of all claims arising out of such accidents.

19) In case of any default by the contractor, LD charges/ compensation as specified in Clause No. 2.1 shall be levied. This amount shall be paid by the contractor on intimation failing which the same shall be deducted from the bills payable to him.

20). Scope of Work also includes the following:

20.1 General

The Contractor shall attend fault call, inspect, service, repair, maintain, modify, and test the lifts to meet the functional requirements of various areas of the institute (Annexure-6). All materials, equipment and appliances shall be originated from the original equipment manufacturers only.

All materials and workmanship shall comply with all relevant sections of the latest edition of the following and all

current amendments thereto issued, unless otherwise specified on a particular Works Order or instructed by the Institute.

- a) The Karnataka Lifts, Escalators & passenger conveyors act, 2012.
- b) The maintenance & up keeping of lifts shall be carried out by the lift manufacturers, authorized & approved lift Agencies only. Every Lift shall be maintained or used as per the requirements specified in the relevant code of practices prescribed by the Bureau of Indian standard, Electricity Act, 2003 (Central Act 36 of 2003) and any rules or Regulations made there under including national Electrical Code, National Building Code or specifications of International Electro-technical Commission
- c) All apparatus and components of Lifts shall be of sufficient ratings and of sufficient mechanical strength for the duty which they may be required to perform under the environmental conditions of installation and shall be constructed, Installed, protected, worked and maintained to ensure safety of human beings and property

20.2 Site Visits before Submitting Tender

Before completing and submitting tenders, the tenders are advised to visit the sites to appreciate and familiarize the extent of work. Venue address can be viewed at the Institute's office and site visit could be arranged by contacting the Institute whose name is given in the Notes to Tenders of the tender document. Failure to visit site(s) prior to tendering will not be entertained as an excuse for deviations once the tender is submitted.

20.3. Provision of Experienced and Competent Staff

The Contractor shall make all necessary arrangements and also provide sufficient qualified technical and professional staff to facilitate during the inspection by the statutory bodies.

The Contractor shall assign at least 1 no. of Registered Lift Engineer/supervisor carrying out Lift works concerning all design, statutory and technical matters. The Registered Lift Engineers shall be registered with the Karnataka Lifts, Escalators & Passenger Conveyor as a Registered Lift Engineer under the Lifts and Escalators and shall have at least of 3-year experience in maintenance and testing and commissioning of lift.

The Contractor shall assign at least 3 nos. of Registered Lift Worker serving for routine and comprehensive maintenance service and emergency service, under close direct supervision of the Contractor. The Registered Lift Workers shall have at least of 5-years lift engineering experience, the last 3 years of which shall be in lift/escalator maintenance. They shall be registered with the Karnataka Lifts, Escalators & Passenger Conveyor as a Registered Lift Worker under the Lifts.

The Contractor shall provide sufficient qualified skilled technical staff, field staff and safety personnel to ensure the works under this contract be satisfactorily carried out safely. The Contractor shall also provide competent attendant(s) to monitor any works in relation to the lift maintained (e.g. cleaning of lift pits, electrical system maintenance, drain out the accumulated water from the lift pits and fire services system maintenance...etc.) He should clear and remove seepage and leakage water inside lift pit/lift shaft/machine room. The work includes necessary accessories like pump, bucket and labour..etc.

20.4. Provision of Tools, Consumables and Safety Facilities

The Contractor shall provide all tools, consumables (e.g. oil, grease, detergents, cleaners, preservatives, cotton waste, etc.), safety facilities (e.g. working platform), personal protection equipment and other necessary materials as required for the execution of duties as required by this Contract. All necessary labour and materials of any value, tools, instruments, testing equipment, and transportation, etc. required for carrying out fault attendance, routine and emergency inspection, testing, repair, replacement and maintenance services shall deem to be included in the tender only.

20.5. 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. All labour costs and costs for repair or replacement of parts whenever required shall be included under this tender only.

- (a) All the parts shall be provided to site within 24 hours for replacement/rectification works. Otherwise, the Contractor shall maintain the sufficient spare parts.
- (b) The Contractor shall keep adequate stocks of essential spare parts, equipment and other components which are necessary to maintain the safe and satisfactory working condition and operation order of the lift at all times. Replacement of equipment, parts and components shall be made in accordance with manufacturer's spare part list.
- (c) 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. The approval of Institute shall be obtained prior to the replacement.
- (d) Subject to Institute's approval on each case, alternative and compatible equipment, parts and/or components are allowed to be used as contingent measure to temporarily re-instate the function and operation of the lift during on-call maintenance and emergency repair services, and subject to the Contractor's undertaking for their subsequent replacement by genuine products as quoted in the manufacturer's spare part list on or before a specified date to be agreed by the Institute. Unless otherwise specified in the Particular Specification, the temporary and subsequent replacement works including provision of equipment, parts, components, all necessary tools and materials shall be provided under the Contract at no extra cost.

20.6. Log Book

Separate log book for individual lifts shall be provided by the Contractor and kept at appropriate places on site as agreed by the Institute. Every attendance and detail of work done to each lift 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 log book entries will be taken as record for the services provided by the Contractor in accordance with the requirements stipulated in the Lifts. The Institute's Representative will check the entries randomly to ascertain the work described in the Contract properly executed. If the lift is found not attended for a period of time, the monthly payment will be adjusted accordingly.

In addition to record in the log book, the Contractor shall also inform the Institute's Representative in writing for any anomaly found during the routine inspection which may not cause present danger to the passenger but awareness is to be taken.

20.7. Shut-down of Lift and Escalator System

Shut-down of lift 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 or as directed by the Institute.

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

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

The Contractor shall be responsible for giving well in advance verbal and written notice to the Institute or his

representative on any shut down indicating the scheduled shut down period and the resumption of the system. If extension of shut down period is required for the system, the Contractor shall report the case to the Institute and the venue-in-charge immediately. Any shut down case and details of shut down shall be recorded in the maintenance log book kept at site.

The Contractor shall provide and fix at all landings with appropriate notice and guard railing during each shut down incident. The temporary guard railing and notice should be taken away immediately when the system is resumed to normal or upon instructed.

20.8. Security

The Contractor shall ensure that lift included in this Contract is properly and adequately executed in good working order, safe operation condition and for its efficient performance. Before leaving the Site and on completion of execution of work each time, the Contractor shall be responsible for keeping all tools, materials in safe custody, and relevant access doors and panels locked.

20.9. Clearance of Debris and Unwanted Materials, etc.

On completion of the repair or maintenance or other contract works, the Contractor shall remove, to an appropriate disposal point, all old parts or debris arising out of the works on daily basis at the Contractor's own expenses. All parts removed from the installation should be inspected and agreed by the Institute's Representative before they are to be disposed of. The Contractor shall keep the equipment and its surrounding area clean and tidy to the satisfaction of the Institute.

The Contractor shall be responsible for keeping each lift and machine room on Site in a clean and orderly condition to the satisfaction of the Institute or his representative at no extra cost. Should the Contractor fail to comply with this requirement, the Institute may order the cleaning work to be carried out by others and subsequently reimburse the full cost of the work from the amount payable to the Contractor. Lift pits of all lifts / elevators shall be kept neat at regular intervals (once in every week)

20.10. Site Safety Requirement

The Contractor shall also take all necessary safety measures, e.g. use of barriers, to the satisfaction of the Institute, to prevent people from getting accidental access to the lift shaft at all points of entry and to maintain the same during the entire period of maintenance or repair work.

20.11. General Requirement

The Contractor shall provide the all-in-all comprehensive maintenance service and to maintain efficient and prompt response to breakdown; emergency call-out or complaint for the timely attendance of equipment failure and/or unsatisfactory services.

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

For the supply, repair and replacement of parts like: hoist lights, car ceiling, fan/blower louver, light diffuser, landing door, emergency door, car wall panel, car decoration, handrail, skirting, entrance column, and front return panel, car flooring, landing architrave, emergency door architrave, and emergency door sill for lift; and landing plate, lamp cover, cladding, decorative, ELCB, MCB, Panel indicators, meters inside the main distribution board and rubber handrail for escalator. The contractor has to make separate arrangements & cost will be added in tender only.

The Contractor shall make good, repair or replace all parts at his own cost if the damage or defect is due to the negligence of the Contractor.

20.12. Rope Maintenance

- 1) Rope measurement should be taken monthly & report to the NITK representative.
- 2) Floor wise rope marking should be checked monthly, if worn out marked immediately.
- 3) If any changes found, The Contractor shall replace all wire ropes for all lifts at his own cost when any one of the following conditions exists: -
 - (a) Where undue stretching occurs after the initial stretch has taken place;
 - (b) There is corrosion / rust
 - (c) There is bird caging of strands
 - (d) The rope has been damaged; and physical condition of the Rope/Ageing of the rope.

20.13. Site Co-ordination

The Contractor shall co-operate and co-ordinate with the Institute's personnel, students, staffs, venue management, the public authorities, and other contractors engaged in work on Site for the smooth progress and satisfactory completion of his Works. The Contractor shall continually keep the Institute and his representative informed of all matters involving coordination for the smooth progress of the work and shall inform and obtain approval from the Institute on the execution of the work, method of execution, programme of execution.

20.14. On-call Maintenance and Emergency Repair Services

20.14.1 Contractor's Emergency Call Centre

The Contractor shall operate a Contractor's Emergency Call Centre (CECC). The CECC should be operated 24hrs a day throughout the whole year. The CECC shall be equipped with at least two mobile phones manned by sufficient number of technical staff as agreed by the Institute to meet the fault calls

- (a) The Contractor shall also supply and install permanent labels made of plastic material or stainless steel indicating the Contractor's name and emergency telephone numbers for each lift or a group of lift in the main landing within one month after commencement of contract or immediately upon any changes.

20.14.2 Fault Call Service

- (a) A 24 hour, 7 day per week, 365 days per year call-out and repair service is to be in force throughout the duration of the Contract.
- (b) All calls to the Contractor's emergency services are to be responded to promptly and the Contractor is to be on site and report to the Institute's Representative following the fault call procedures.
- (c) Response Time

The Contractor shall respond to the Company's call for service and arrive the site:

- Within 30 minutes in case of lift trap; and
- Within 60 minutes in case of non-lift trap.

(e) After receiving instructions from the Institute or his representative, either verbal or written, all faulty systems should be restored to its normal condition within one day or as the date agreed by the Institute.

(f) If the Contractor fail to respond promptly within the specified period, the Contractor shall immediately contact the Institute or his representative and provide sufficient justification for his incapability to comply with the requirement of response.

(g) If a failure occurs in the emergency devices of the lift, i.e. alarm, intercom system, emergency lighting system and ventilation fan of the lift car, the Contractor should take immediate action to repair/replace on emergency basis.

(h) If the lift is beyond emergency repair, the contractor is required to make safe the lift and install a suitable notice indicating "Out of Service" at a prominent position and inform the Institute and any other party as directed by the Institute.

20.14.3 Upon instructed by the Institute or his representatives, the Contractor shall submit to the Institute a detailed inspection, service and repair report within 48 hours of receipt of fault call. The report shall at least include the following information: -

(a) Date/time of receipt of fault call.

(b) Date/time of arrival of Service Team to the site of incident.

(c) Date/time of reinstatement of safe and satisfactory working condition and operation order of the Lift.

(d) Causes of fault/alarm.

(e) List/details of repairs and/or replacement works.

(f) Follow-up action if required.

(g) Tentative time schedules for completion of off-site repair works and all other necessary works.

(h) Photo records

(i) Description of the fault.

(j) Fault symptoms

(k) Remedial action taken

(l) Preventive measure

(m) Location

20.15. Regular Inspection and Servicing

All planned maintenance works should be well planned, coordinated, equipped with sufficient staff and organized to the satisfaction of the Institute and his representatives.

20.15.1 Scope of Inspection and Servicing

The Contractor shall dispatch competent and specially trained technicians to each lift regularly according to the Maintenance Schedules specified below in terms of frequency and scope of work, to keep the lifts in a clean, smooth, quiet and safe operating condition. The Contractor shall also check and clean the drain holes in the lift.

Maintenance Schedule for Electric Passenger and Goods Lifts

Schedule No	Description of Job
Weekly Maintenance	
1	<p>(a) Top up lift machine gearbox and lubricate bearings.</p> <p>(b) Check brake for correct mechanical action. Ensure linings and drums are free from oil or grease.</p> <p>(c) Clean overspeed governor and lubricate.</p> <p>(d) Inspect bearings of drums, sheaves and pulleys. Lubricate.</p> <p>(e) Inspect motor/exciter commutators and sliprings operating under working conditions and stationary. Lubricate bearings.</p> <p>(f) Clean, inspect and adjust controller contacts, interlocks and dashpots. Lubricate.</p> <p>Observe and adjust operation sequence and timing of contactors.</p> <p>(g) Clean floor selector, check action and adjust. Lubricate drive gear.</p> <p>(h) Top up counterweight guide shoes lubricators.</p> <p>(i) Clean up lift well as necessary. Clean pit. Inspect condition of lift well enclosure.</p> <p>(j) Clean guides and lubricate where applicable.</p> <p>(k) Check limit switches, direction switches and their operating devices. Ensure rollers and spindles are free to rotate. Lubricate.</p> <p>(l) Inspect car exterior and clean car top. Top up car guide shoe lubricators. Inspect tensioning devices for correct adjustment. Clean and inspect door operating gear and check for oil leaks. Lubricate.</p> <p>(m) Check door locks for safe operation. Ensure rollers and spindles are free to rotate. Lubricate.</p> <p>(n) Check that car and landing doors operate freely and bottom tracks are clear of debris.</p> <p>(o) Ride in car, observe and record irregularities in starting, stopping and general running.</p> <p>(p) Check for correct operation: - Car controls, car door switches, door re-opening device, emergency stop, alarm bell and intercom system. Inspect condition of car interior and floor covering. Observe levelling accuracy.</p> <p>(q) Test operation of landing buttons, indicators, and fireman switch.</p> <p>(r) Checking of lift cabin lights, fans & Hoist lights.</p>
Monthly service	
2	<p>(a) Inspect lift machine gearing and bearings. Ensure keys and fixing bolts are secure.</p> <p>(b) Inspect brake coupling and linings for wear. See that keys and fixing bolts are secure. Check that brake release gear and hand winding wheel are readily available.</p> <p>(c) Check drums, sheaves and pulleys for visible cracks, ensure keys and fixing bolts are secure. Inspect bearings and sheave grooves.</p> <p>(d) Check condition of wire ropes. Ensure suspension ropes are evenly tensioned.</p> <p>(e) Inspect over speed governor for wear. Ensure keys and fixing bolts are secure.</p> <p>(f) Extract dust from interiors of motors and generators. Inspect bearings, ensure fixing bolts are secure.</p> <p>(g) Inspect floor selector bearings. Check connections and flexes. Inspect driving rope, tape or chain for wear and correct tension.</p> <p>(h) Inspect and operate by hand the slack rope switch, safety-gear switch, broken tape or rope switch and over speed governor switch.</p> <p>(i) Inspect guides for wear and ensure fixings are secure.</p> <p>(j) Check counterweight clearances for rope stretch. Inspect rope equalizer. Ensure main tie bolts are secure. Inspect guide shoes for wear and "float". Ensure filler weights are properly positioned and secure. Check safety-gear for guide clearance and free movement.</p> <p>(k) Open, clean and inspect limit switches, direction switches. Inspect fixed ramps and inductor plates.</p> <p>(l) Ensure spring buffers are secure. Clean oil buffers and top up. Check for oil leaks.</p> <p>(m) Inspect conditions of landing and car sill nosings and check car clearance. Inspect lock beaks, door rollers and spindles for wear. Inspect door inter-connecting wires or chains for wear and correct tension.</p>

	<p>(n) Ensure car frame bolts are secure. Check guide shoes for minimum "float". Ensure car body is secure in frame. Check safety-gear for guide clearance and free movement. Check tension of safety rope. Inspect door operating mechanism for wear and ensure driving sprockets, keys and fixing bolts are secure. Ensure that the "pick-up" between car and landing doors is correctly aligned.</p> <p>(o) Open, clean and inspect car controls, floor switches, door switches. Check action of emergency opening and movable floor. Inspect car lighting.</p> <p>(p) Inspect travelling cables and their anchorages</p> <p>(q) Open, clean and inspect landing button boxes and ensure that they and any indicator boxes are securely fixed</p> <p>(r) Checking and replacing of ELCB provided in the DB.</p> <p>(s) Checking, maintenance, servicing and refilling of Fire extinguishers & the safety devices.</p>
Three-Month service	
3	<p>(a) Open, clean and inspect landing door locks.</p> <p>(b) Carry out electrical load test on emergency lighting, batteries and battery charger for a period of 1 hour.</p>
Other Maintenance Services	
4	<p>(a) Renew wire rope.</p> <p>(b) Test safety gear on no load.</p> <p>Frequency: (i) After major repair (ii) Every year</p> <p>(c) Test overspeed governors and safety gear on full load.</p> <p>Frequency: (i) After major repair (ii) Every year</p>

20.15.2 Monthly Service Report and Quarterly Inspection Report

The Contractor shall submit to the Institute Monthly Service Report on the routine maintenance services delivered to each lift and escalator in the calendar month and Quarterly Inspection Report on the conditions of each lift and escalator. Specimens of these reports are attached. Each Quarterly Inspection Report shall: -

(a) State the condition of the major safety components as detailed in the Appendixes and detail any unsatisfactory items or any wrong method of operation by the users, or any improvement work which may be considered necessary;

(b) State clearly dates of replacement for major parts such as travelling cable, suspension wire rope, motor, driving chain, handrail, etc. in the reporting quarter;

20.16 Periodic Examination, Testing and Maintenance

20.16.1 Lift Inspection

All the lifts and their associated equipment or machinery shall be thoroughly examined by the Registered Lift Engineer at intervals not exceeding the period specified by chief electrical inspectorate of Karnataka

20.16.2 Safety Equipment

Safety equipment means, in relation to a lift, the safety gear and governor or other device by which it is operated, the emergency signals and where provided, the stop switch, and all machinery and equipment connected therewith, and all machinery and equipment connected therewith.

20.17 Auto Rescue Devices (ARD)

Auto Rescue device of all the lifts should be in working condition with proper maintenance of Battery & Inverters.

21. **Responsibility of the contractor at the end of the contract period:**

- (i) All Lifts taken for maintenance during the contract period shall be handed over back to the Institute in good working condition.
- (ii) Any equipment/ Spare pad taken outside for repair from the Institute shall be handed over in good working condition well before the end date of contract,
- (iii) Passes issued by the Institute to the contractor/ contractors' employees if any shall be returned to the Institute.

LIQUIDATED DAMAGES/COMPENSATION FOR DEFAULT:

In case of any default by the contractor, non-performance of scope of work, damage to the Institute property on account of negligence of the contractor in performing the obligations under this contract, non-adherence to the instructions or similar default, then the contractor shall be liable to pay liquidated damages at the rate mentioned below:

Sl. No.	Nature of default	LD Charges
1	Non-submission of periodic service report	₹500 per default+ taxes as applicable
2	Non-maintenance of log books	₹500 per default/Lift + taxes as applicable
3	Non-attending to complaints in time- Minor/Medium rectification	₹500 per default+ taxes as applicable and ₹300/day of delay+ taxes as applicable
4	Non-attending to complaints in time-Major	₹1000 per default+ taxes as applicable and ₹300/day of delay+ taxes as applicable
5	In case of damages to any institute property(Connected to Lift/ Lift equipment)	₹1000 per incident+ taxes as applicable Plus cost of making good as decided by the Institute
6	In case of theft of any institute property(connected to Lift/Lift equipment)if reason is attributable to the lapse of the contractor	₹5000 per incident+ taxes as applicable Plus cost of material as decided by the Institute
7	Non-adherence of instructions of the Engineer in charge	₹500 per default+ taxes as applicable

The liquidated damages shall be recovered by the Institute out of the amounts, payable to the Contractor or from the bill amount, if not paid by contractor. The liquidated damages so collected are not refundable. The contractor shall not recover the same from the wages of employees/ workers unless due procedure is adopted and prior approval of the Institute is obtained.

Monthly Fault Call and Emergency Repair Report

Contractor Name:.....

Date :.....

Lift Location:.....

Mandatory										Optional			
Job Ref.	Call Received Date	Call Received Time	Arrival Date	Arrival Time	Works Completion Date	Works Completion Time	Activity Code (P01 / P02 / C01 / C02)	Activity Description (40 chars)	Priority (U/N)	Damage Code Group	Damage Code	Cause Code	Cause Code

LEGEND:

Activity Code Priority

P01 = Preventive Maintenance U = Urgent

P02 = Overhaul Maintenance N = Non-urgent

C01 = Corrective Maintenance for fault without trapped passenger

C02 = Corrective Maintenance for fault with trapped passenger

Monthly Services Report for Electric Passenger & Goods Lift

Lift Inspection Report for: (Month/Year)

Maintenance Contract No.:

Location:

Lift No.

Contractor's Name:

Item	Description of Service	N/A	Weekly					Remarks
			Date	Date	Date	Date	Date	
			Properly Done					
1	(a) Top up lift machine gearbox and lubricate bearings.							
	(b) Check brake for correct mechanical action. Ensure linings and drums are free from oil or grease.							
	(c) Clean overspeed governor and lubricate.							
	(d) Inspect bearings of drums, sheaves and pulleys. Lubricate.							
	(e) Inspect motor/ generator / exciter commutators and sliprings operating under working conditions and stationary. Lubricate bearings.							
	(f) Clean, inspect and adjust controller contacts, interlocks and dashpots. Lubricate. Observe and adjust operation sequence and timing of contactors.							
	(g) Clean floor selector, check action and adjust. Lubricate drive gear.							
	(h) Top up counterweight guide shoes lubrications.							
	(i) Clean up lift well as necessary. Clean pit. Inspect condition of lift well enclosure.							
	(j) Clean guides and lubricate where applicable.							
	(k) Check limit switches, direction switches and their operating devices. Ensure rollers and spindles are free to rotate.							
	(l) Inspect car exterior and clean car top. Top up car guide shoe lubricators. Inspect tensioning devices for correct adjustment. Clean and inspect door operating gear and check for oil leaks. Lubricate.							
	(m) Check door locks for safe operation. Ensure rollers and spindles are free to rotate. Lubricate.							
	(n) Check that car and landing doors operate freely and bottom tracks are clear of debris.							
	(o) Ride in car, observe and record irregularities in starting, stopping and general running.							
	(p) Check for correct operation: - Car controls, car door switches, door re-opening device, emergency stop, alarm bell and intercom system. Inspect condition of car interior and floor covering. Observe leveling accuracy.							
(q) Test operation of landing button, indicators and fireman switch.								

Item	Description of Service	N/A	Monthly	Remarks
2	(a) Inspect lift machine gearing and bearings. Ensure keys and fixing bolts are secure.			
	(b) Inspect brake coupling and linings for wear. See that keys and fixing bolts are secure. Check that brake release gear and hand winding wheel are readily available.			

Item	Description of Service	N/A	Monthly	Remarks
(c)	Check drums, sheaves and pulleys for visible cracks, ensure keys and fixing bolts are secure. Inspect bearings and sheave grooves.			
(d)	Check condition of wire ropes. Ensure suspension ropes are evenly tensioned.			
(e)	Inspect overspeed governor for wear. Ensure keys and fixing bolts are secure.			
(f)	Extract dust from interiors of motors and generators. Inspect bearings, ensure fixing bolts are secure.			
(g)	Inspect floor selector bearings. Check connections and flexes. Inspect driving rope, tape or chain for wear and correct tension.			
(h)	Inspect and operate by hand the slack rope witch, safety-gear switch, broken tape or rope switch and overspeed governor switch.			
(i)	Inspect guides for wear and ensure fixings are secure.			
(j)	Check counterweight clearances for rope stretch. Inspect rope equalizer. Ensure main tie bolts are secure. Inspect guide shoes for wear and "float". Ensure filler weights are properly positioned and secure. Check safety-gear for guide clearance and free movement.			
(k)	Open, clean, inspect limit switches, direction switches. Inspect fixed ramps and inductor plates.			
(l)	Ensure spring buffers are secure. Clean oil buffers and top up. Check for oil leaks.			
(m)	Inspect conditions of landing and car sill nosings and check car clearance. Inspect lock beaks, door rollers, spindles for wear. Inspect door inter-connecting wires or chains for wear and correct tension.			
(n)	Ensure car frame bolts are secure. Check guide shoes for minimum "float". Ensure car body is secure in frame. Check safety-gear for guide clearance and free movement. Check tension of safety rope. Inspect door operating mechanism for wear and ensure driving sprockets, keys and fixing bolts are secure. Ensure that the "pick-up" between car and landing doors is correctly aligned.			
(o)	Open, clean and inspect car controls, floor switches, door switches. Check action of emergency opening and movable floor. Inspect car lighting.			
(p)	Inspect travelling cables and their anchorages.			
(q)	Open, clean and inspect landing button boxes and ensure that they and any indicator boxes are securely fixed.			

Item	Description of Service	N/A	Quarterly	Remarks
3	(a) Open, clean and inspect landing door locks.			
	(b) Carry out electrical load test on emergency lighting, batteries and battery charger for a period of 1 hour.			
	(c) Inspect and operate by hand the ascending car overspeed protection device switch and rope break protection device.			

Signature:

Name of competent technician:

Staff Identification No.:

Quarterly Inspection Report for Lift

Quarterly Inspection Report for Lift: (Month/Year)

Maintenance Contract No.:

Location: Lift No.

Contractor's Name:

Type of Installation: Passenger Lift ☐ Hydraulic Lift ☐ Goods Lift ☐ Services ☐ Lift ☐

Date of last periodic examination as per section 22 of the Lifts and Escalators Ordinance: _____ (Date)

Date of last examination with load as per section 23 of the Lifts and Escalators Ordinance: _____ (Date)

Details of Test:

(a)	Normal/emergency lift, batteries and battery charger		Good <input type="checkbox"/>	Fair <input type="checkbox"/>	Poor <input type="checkbox"/>
(b)	Emergency release equipment		Good <input type="checkbox"/>	Fair <input type="checkbox"/>	Poor <input type="checkbox"/>
(c)	Machine gear box		Good <input type="checkbox"/>	Fair <input type="checkbox"/>	Poor <input type="checkbox"/>
(d)	Brake system		Good <input type="checkbox"/>	Fair <input type="checkbox"/>	Poor <input type="checkbox"/>
(e)	Hoisting rope		Good <input type="checkbox"/>	Fair <input type="checkbox"/>	Poor <input type="checkbox"/>
(f)	Sheave and pulleys		Good <input type="checkbox"/>	Fair <input type="checkbox"/>	Poor <input type="checkbox"/>
(g)	Governor and rope		Good <input type="checkbox"/>	Fair <input type="checkbox"/>	Poor <input type="checkbox"/>
(h)	Levelling at each landing		Good <input type="checkbox"/>	Fair <input type="checkbox"/>	Poor <input type="checkbox"/>
(i)	Operation of ascending car overspeed protection device switch and rope break protection device	N/A <input type="checkbox"/>	Good <input type="checkbox"/>	Fair <input type="checkbox"/>	Poor <input type="checkbox"/>
(j)	Car / Landing doors				
	- Safety edges		Good <input type="checkbox"/>	Fair <input type="checkbox"/>	Poor <input type="checkbox"/>
	- Door lock		Good <input type="checkbox"/>	Fair <input type="checkbox"/>	Poor <input type="checkbox"/>
	- Door operation		Good <input type="checkbox"/>	Fair <input type="checkbox"/>	Poor <input type="checkbox"/>
	- Door sill		Good <input type="checkbox"/>	Fair <input type="checkbox"/>	Poor <input type="checkbox"/>
	- Door gap clearance		Good <input type="checkbox"/>	Fair <input type="checkbox"/>	Poor <input type="checkbox"/>
(k)	Car interior				
	- Normal lighting		Good <input type="checkbox"/>	Fair <input type="checkbox"/>	Poor <input type="checkbox"/>
	- Load test on emergency lighting, batteries and battery charger		Good <input type="checkbox"/>	Fair <input type="checkbox"/>	Poor <input type="checkbox"/>
	- Ventilation fan		Good <input type="checkbox"/>	Fair <input type="checkbox"/>	Poor <input type="checkbox"/>
	- Emergency alarm		Good <input type="checkbox"/>	Fair <input type="checkbox"/>	Poor <input type="checkbox"/>
	- Intercom system	N/A <input type="checkbox"/>	Good <input type="checkbox"/>	Fair <input type="checkbox"/>	Poor <input type="checkbox"/>
	- Overload indication		Good <input type="checkbox"/>	Fair <input type="checkbox"/>	Poor <input type="checkbox"/>
	- Warning notice		Good <input type="checkbox"/>	Fair <input type="checkbox"/>	Poor <input type="checkbox"/>
	- Tactile braille plate	N/A <input type="checkbox"/>	Good <input type="checkbox"/>	Fair <input type="checkbox"/>	Poor <input type="checkbox"/>
(l)	Main landing				
	- Firemen's switch	N/A <input type="checkbox"/>	Good <input type="checkbox"/>	Fair <input type="checkbox"/>	Poor <input type="checkbox"/>
	- Emergency alarm bell		Good <input type="checkbox"/>	Fair <input type="checkbox"/>	Poor <input type="checkbox"/>
	- Lift service call notice board		Good <input type="checkbox"/>	Fair <input type="checkbox"/>	Poor <input type="checkbox"/>
(m)	Hydraulic Lift				
	- Ram and cylinder		Good <input type="checkbox"/>	Fair <input type="checkbox"/>	Poor <input type="checkbox"/>
	- Control, pilot and levelling valves and adjust. Lubricate.		Good <input type="checkbox"/>	Fair <input type="checkbox"/>	Poor <input type="checkbox"/>
	- Control rope and chain, rope gripper and terminal stops		Good <input type="checkbox"/>	Fair <input type="checkbox"/>	Poor <input type="checkbox"/>
	- Rollers and spindle		Good <input type="checkbox"/>	Fair <input type="checkbox"/>	Poor <input type="checkbox"/>
	- Pump Motor				
(n)	Measured Rate Speed: _____ m/s				

- (o) Measured Lift Door Opening Time (for lift door at terminal floor only): _____ sec
 (p) Measured Lift Door Closing Time (for lift door at terminal floor only): _____ sec.
 (q) Others: _____

Major Repairs:

Remarks: (1) The lift is in a satisfactory and serviceable condition:

Yes ☐ No ☐

(2) Others:

Checked by:

Date:

Certified by:

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Date:

Name

RLE No.

Signature

Name and Address of the Bidder:

Contact No:

GST registration number:-

PAN number:-

No:

Date:

QUOTATION

To

The Superintending Engineer,
Office of the Superintending Engineer,
N. I.T.K, Surathkal.

Sub: Providing Comprehensive Annual maintenance for the 2 No's of Johnson make 20 Passenger Lift (elevators) installed at COE building in NITK Surathkal

Sl. No	Description of the items	Quantity	Rate per year in Rs. (without Tax)	GST	Amount in Rs. (with Tax)
1.	Providing 12 months Comprehensive Annual maintenance for the 2 No of Johnson make Lift (elevators) Type: Passenger Lift G+3 (4 Stop) MRL Make: Jhonson Lifts Pvt.Ltd Capacity: 20passenger (1360KG), 19.10(kW/HP), 163 RPM. (The price quoted should be inclusive of all material, labour etc)	02No's			
Grand Total					

Rupees in Words:

Seal and signature of the Bidder