

REQUEST FOR PROPOSAL FOR

SUPPLY, INSTALLATION, TESTING, COMMISSIONING
AND MAINTENANCE OF ONE LIFT
AFTER DISMANTLING EXISTING LIFT
AT
INDIAN BANK EXECUTIVE QUARTERS, ELDAMS ROAD,
ALWARPET, CHENNAI-600018

PART - I (TECHNICAL BID)

RFP NO. : Tender/02/Procurement/Lift
Date: 18.01.2019

Signature, Stamp and Name of the Bidder

I N D E X

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FORM OF TENDER

Indian Bank

Corporate Office,
Premises, Estate & Expenditure Dept,
No. 254-260, Avvai Shanmugam Salai,
Royapettah, Chennai – 600 014.

Dear Sirs,

SUB: Invitation of Tender for 'Supply, installation, testing, commissioning and maintenance of one lift after dismantling existing lift at Indian Bank Executive Quarters, Eldams Road, Alwarpet, Chennai-600018'

Having examined the specifications, conditions and schedule of quantities prepared by you, and satisfying ourselves as to the location of the site and working conditions, I/We hereby offer to execute the above works at the respective rates which I/We have quoted for the items in the Schedule of Quantities.

I/We herewith deposit **Rs.27,000/- (Rupees twenty seven thousand only)** by crossed demand draft payable at Chennai and drawn in favour of Indian Bank as Earnest Money Deposit for the due execution of the works at my/our tendered rates, together with any variations should the work be awarded to me/us.

In the event of this tender being accepted, I/We agree to enter into and execute the necessary contract required by you. I/We do hereby bind myself/ourselves to forfeit the aforesaid Earnest Money Deposit of **Rs.27,000/- (Rupees twenty seven thousand only)** in the event of our refusal or delay in signing the Contract Agreement. I/We further agree to complete the work within the stipulated time specified in the Appendix to General Conditions of Contract.

I/We agree to keep our tender open for **90 (Ninety) days** from the date of opening of Envelope No.1.

I/We enclose the completed tender documents duly signed under two separate sealed envelopes and the Earnest Money Deposit Rs._____ (Rupees _____ only) by Bank Draft. dated Issued by

Thanking you,

Yours faithfully,

[To be signed by the Authorized Representative of
Tenderer who has the Power to do so]

Place:
Date :

Witness Signature:
 Name:
 Address:
 Seal:

INDIAN BANK
NOTICE INVITING TENDER

Indian Bank, Corporate Office, Chennai invites sealed tenders in 2 bid system (Technical and Financial bid in two separate covers) for 'Supply, installation, testing, commissioning and maintenance of one lift after dismantling existing lift (under buyback option) at Indian Bank Executive Quarters, Eldams Road, Alwarpet, Chennai-600018'.

Name of Project	Supply, installation, testing, commissioning and maintenance of one lift after dismantling existing lift (under buyback option) at Indian Bank Executive Quarters, Eldams Road, Alwarpet, Chennai-600018
Availability of Tender	Tender may be down loaded from the bank's web site http://www.indianbank.in/tender.php form 18.01.2019
Pre- Bid Meeting Date & Time	28.01.2019 at 11:00 a.m
Pre-Bid Meeting Place	Indian Bank, Corporate Office, Premises, Estate & Expenditure Dept., 254-260, Avvai Shanmugam Salai, Royapettah, Chennai- 600014
Last date & time of submission of Tender :	08.02.2019 upto 2:00 p.m
Place of Submission of Bids	Indian Bank, Corporate Office, Premises, Estate & Expenditure Dept., 254-260, Avvai Shanmugam Salai, Royapettah, Chennai- 600014
Submission of Bids	The bid should be sealed and duly superscribed with "SITC of Lift at Indian Bank Quarters" & Due Date and to be submitted to the concerned department/section mentioned in tender document.
Opening Date & Time of technical bid	08.02.2019 at 3:30 p.m
Tender fee	Tender Fee – Rs. 1,000/- DD. issued by any scheduled Bank favoring Indian Bank, Payable at Chennai
Earnest Money Deposit	EMD - for Rs.27,000/- DD. issued by any scheduled Bank favoring Indian Bank, Payable at Chennai
Place of Opening Technical Bid	Indian Bank, Corporate Office, Premises, Estate & Expenditure Dept., 254-260, Avvai Shanmugam Salai, Royapettah, Chennai- 600014
Date of opening of Financial bid	Will be informed to the prequalified bidders separately
Estimated cost of project	Rs. 15 Lakh (approx)
Contract execution time	3 months
Eligibility criteria for contractors	<p>Only the following lift brands will be considered:</p> <ol style="list-style-type: none"> 1. M/s Johnson Lifts Pvt. Ltd. 2. M/s OTIS Elevator Co. India Ltd. 3. Schindler India Pvt. Ltd. 4. Kone India Pvt. Ltd. 5. Mitsubishi Electric <p>Other criteria:</p> <ol style="list-style-type: none"> 1. Firm should be in business for the past 7 years and should have completed during the last 7 years ending 31.03.2018 at least one similar work of Rs. 20 Lakh or two similar works of Rs.15 Lakh each or 3 similar works of not less than Rs.10 Lakh each, 2. 24 x 7 local service set –up, 3. Should have a solvency of Rs.15 Lakh issued by a scheduled Bank on or after 01.04.2018. 4. Firms shall have minimum turnover of Rs. 5 crores per year in the last 3 years as on 31.03.2018.

	5. The applicant should be a profit making company for last 3 years as on 31.03.2018. Signed profit and loss statement from Chartered Accountant shall be submitted.
Any Clarification	Name : Deputy General Manager (IED) Dept : Premises, Estate & Expenditure Email : hoestate@indianbank.co.in Contact No. : 044-2813 4501, 4401
Contact Person	Mr. Ashok Kumar Senior Manager (Mech. Engr.) 044- 2813 4501 Email: hoestate@indianbank.co.in

Note:

1. Applications for issuance of tender without complete information and certified photocopies of documents in support of fulfilling the Pre-qualification criteria will not be entertained.
2. If any information furnished by the applicant is found incorrect at a later stage, he shall be liable to be debarred from tendering/taking up the work in Indian Bank.
3. The Bank reserves the right to verify the particulars furnished by the applicant independently.
4. Short-listing of contractors will be finalized after inspection of works and obtaining confidential reports from previous employers for only those firms who fulfill the aforesaid Pre-qualification criteria and that specified in Technical bid.
5. The bank reserves the right to reject any tender/bid without assigning any reason and to restrict the list of qualified contractors for opening of the financial bid to any number deemed suitable by it, from out of the bids received.
6. The rates quoted by the tenderer shall be based only on the specifications and conditions of the tender documents.
7. Bank is not liable to make any payment to tenderers for preparation to submit the tender/bid.
8. Tenders without EMD, tenders with EMD not kept in the Technical Bid cover, tenders not filled in pen, tenders (Price Bid) not submitted in the Bank provided format etc. will be summarily rejected.

PREQUALIFICATION DOCUMENTS**1.0 Criteria for Eligibility and documents to be submitted along with Part I.**

- 1) List of Clients for similar nature of work along with documentary evidences about award / completion of works with value, completion period, type of Buildings, name and address / contact No.
- 2) List of works of similar nature in hand with value, schedule date of completion.
- 3) List of Banker along with address, contact number of Branch.
- 4) Turn-over of the company for the last 3 financial years, supported by documents.
- 5) Solvency certificate from the Bank for the prescribed value.

2.0 Documents – details to be enclosed with the Technical Bid:

- Form A – Financial Information
- Form B- Details of all works of similar class/ nature completed during the last five years ending 31.03.2018.
- Form B-1- Additional Information for completed works
- Form C- Project under execution or awarded as on 31.03.2018
- Form D- Performance report for works referred to in Forms B & C
- Form E – Structure and Organization
- Form E-1- Details of Key Technical and Administrative Personnel employed by the firm/company
- Form F - Proforma on ISO certification

FINANCIAL INFORMATION

- I. Financial Analysis – Details to be furnished duly supported by figures in Balance Sheet/Profit and Loss Account for the last Three years duly certified by the Chartered Accountant, as submitted by the applicant to the Income-Tax Department (Copies to be attached).

	YEARS		
	2015-16	2016-17	2017-18
(i) Gross Annual turn-over in Construction Works:			
(ii) Profit/Loss			
(iii) Financial position:			
(a) Cash			
(b) Current Assets			
(c) Current Liabilities			
(d) Working capital (b-c)			
(e) Current Ratio: Current Assets/Current Liabilities (b/c)			
(f) Acid Test Ratio: Quick Assets/Current Liabilities (a/c)			

- II. Income Tax clearance Certificate
- III. Solvency certificate from Bankers (Schedule Bank) of Applicant.
- IV. Financial arrangements for carrying out the proposed work

SIGNATURE OF APPLICANT(S)

Signature of Chartered Accountant with seal

FORM 'B'
**DETAILS OF ALL WORKS OF SIMILAR CLASS COMPLETED DURING THE LAST FIVE YEARS
ENDING 31ST March 2018.**

SL NO	Name of project & location	Owner or sponsoring organizations	Agreement No	Scope of work	Cost of work in Crores	Date of commencement as per contract	Stipulated Date of completion	Actual date of completion	Litigation/ Arbitration pending / In progress with details *	Name and address/ Tel No of Officer to whom reference may be made	Remarks
1	2	3	4	5	6	7	8	9	10	11	12

*** Indicate gross amount claimed and amount awarded by the Arbitrator**

Signature of Applicant(s)

ADDITIONAL INFORMATION FOR COMPLETED WORKS

1. Name of work :
2. Location :
3. Client's name and address :
4. Consultants name and address :
5. Scope of work :
- a. Total Number of Units :

SIGNATURE OF APPLICANT(S)

FORM C
PROJECTS UNDER EXECUTION OR AWARDED

SL NO	Name of work/project & location	Owner or sponsoring organizations	Agreement No	Cost of work	Date of commencement per contract	Stipulated Date of completion	Upto date percentage progress of work	Slow progress, if any, and reasons thereof	Name and address/ Tel No of Officer to whom reference may be made	Remarks(Indicate whether any show cause notice issued or Arbitration initiated during the progress of work)
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										

Signature of Applicant(s)

PERFORMANCE REPORT FOR WORKS REFERRED TO IN FORM 'B' & 'C'

1. Name of the work/ Project & Location.
2. Scope of work.
 - a. Total Number of Units.
 - b. Number of floors.
3. Agreement No.
4. Estimated Cost
5. Tendered Cost
6. Value of work done
7. Date of Start
8. Date of completion
 - a. Stipulated date of completion.
 - b. Actual date of completion.
9. Amount of compensation levied for delayed Completion, if any.
10. Performance report based on Quality of Work, Time Management, and Resourcefulness : Very Good/ Good /Fair/ Not satisfactory

DATE

SUPERINTENDINGENGINEER/
CHIEF PROJECT MANAGER
OR EQUIVALENT.

STRUCTURE AND ORGANISATION

- (i) Name and address of the applicant
- (ii) Telephone No./Fax No/E-Mail address.
- (iii) Legal Status (attach copies of original document defining the legal status)
 - (a) An Individual
 - (b) A proprietary Firm
 - (c) A Firm in partnership
 - (d) A Limited Company or Corporation.
- (iv) Particulars of registration with various Government bodies (Attach attested photo-copy)
 - a) Registration Number.
 - b) Organization / Place of registration
- (v) Names and Titles of Directors and officers with designation to be concerned with this work with Designation of individuals authorized to act for the organization.
- (vi) Was the applicant ever required to suspend work for a period of more than six months continuously after you commenced the construction?
If so, give the name of the project and give reasons thereof.
- (vii) Has the applicant or any constituent partner in case of partnership firm/company, ever abandoned the awarded work before its completion?
If so, give the name of the project and give reasons thereof.
- (viii) Has the applicant or any constituent partner in case of partnership firm/Company, ever been debarred/black listed for tendering in any organization at any time? If so, give details:
- (ix) Has the applicant or any constituent partner in case of partnership firm, or any directors in case of a Company ever been convicted by a court of law? Or any criminal proceedings presently pending? If so, give details.
- (x) Any other information considered necessary but not included above.

SIGNATURE OF APPLICANT(S)

DETAILS OF KEY TECHNICAL AND ADMINISTRATIVE PERSONNEL EMPLOYED BY THE FIRM / COMPANY

SL. NO	Designation	Total Number	Names	Qualification	Professional Experience	Length of continuous service with employer
1	2	3	4	5	6	7

Note : additional information about Technical personnel , if any , may be submitted on separate sheet

Signature of Applicant(s)

PROFORMA ON ISO CERTIFICATION (Optional)

1. Year of Certification

2. Name and Address of Certifying Agency

3. Name of Management Representative

4. Validity of Certificate

Note : Attested copy of certificate (attested by Government Officer or Notary Public) to be enclosed.

SIGNATURE OF APPLICANT(S)

GENERAL CONDITIONS OF CONTRACT

The proposed work is to be carried out at Indian Bank Executive Quarters, Eldams Road, Alwarpet, Chennai-600018. The building has basement + Ground + 3 floors.

The scope of work for the purpose of this tender constitutes Supply, Installation, Testing commissioning and maintenance of one lift (6 passenger lift) along with dismantling of existing lift under buyback.

1. The Bid should be dropped in the tender box kept in the office of concerned Department /Section mentioned in the tender. No tender is to be handed over to our staff personally unless otherwise specified. All communications are to be addressed to the undersigned only. In case due date happens to be a holiday the bid will be accepted and opened on the next working day.
2. The bid can be submitted in person or through post/ courier (Bank shall not be responsible for any postal delays or any other reason for not submitting the bid in the specified time and resulting in disqualification / rejection of any bid) so as to reach on or before the due date and time.
3. The tender for works shall remain open for acceptance for a period of 90 days from the date of opening of Tender. If any tenderer who withdraws his tender before the said period, then the Indian Bank shall be at liberty to forfeit Earnest Money paid by the tenderer.
4. It will be obligatory on the part of the tenderer to tender and sign the tender documents for all the component parts.
5. The EMD of the Tenderer, whose tender is accepted, shall be forfeited in full in case he does not start the work by stipulated date mentioned in the award letter.
6. The rates should be quoted in whole rupees and must be expressed in figures and in words.
7. The rates should be written clearly and legibly without any erasure or over writings. If any corrections are made, it should be authenticated with the full signature of authorized person signing the tender.
8. The tenderers are advised to satisfy themselves that the rates tendered by them are for the items for which tenders have been invited.
9. Canvassing in connection with tenders is strictly prohibited and the tenders submitted by the Tenderers who resort to canvassing will be liable to rejection.
10. On acceptance of the tender the name of the accredited representative(s) of the Tenderer who would be responsible for taking instructions from the Indian Bank shall be communicated to the Indian Bank.
11. The contractor shall inspect the site before quoting the rate for the work.
12. No representation towards revision of rates once accepted will be considered.
13. The tenderers are responsible to furnish all the required particulars along with the tender. No correspondence will be made on this account from this office.
14. No advance payment will be made towards cost of materials or for any purpose.
15. Each bidder should remit a sum of Rs.27,000/- (Rupees Twenty seven thousand only) towards Earnest Money Deposit by means of a Demand Draft drawn in favour of Indian Bank, payable at Chennai. Earnest Money Deposit remitted in any other form will not be accepted and such tenders will be summarily rejected

without further notice. Tenders received without Earnest Money Deposit or found to be defective in any other respect will be rejected and Earnest Money Deposit refunded to unsuccessful tenderers in due course.

16. The Earnest Money Deposit received from the successful tenderer will be retained till the contract period is over. Upon successful completion, the same will be refund within 30 days of settlement of final bill.
17. The tenderers should clearly understand that no variation of the terms and conditions contained herein will be made under any circumstances and that the tender is an admission that they have read and understood the terms and conditions contained therein and the tender is expressly made subject to the same.
18. The work should be completed within the time stipulated and failure on the part of the contractor to commence the work or stops in the middle or using materials which do not confirm to approved standards or which is found defective in any other way or breach of any of the conditions stipulated will entail enforcement of one or more of the following conditions.
 - a. Cancellation of order in part or whole
 - b. Forfeiture of Earnest Money Deposit in whole or to the extent necessary
 - c. Recovery of losses incurred if any.
 - d. Recovery of extra cost if any incurred in getting the work done through other sources, by adjustment from the money due to the defaulter.
 - e. Extra cost over and above the amount due if any will be recovered from the tenderer.
19. The Bank reserves the right to accept or reject any or all tenders/bid without assigning any reason and to restrict the list of qualified bidders for opening of the financial bid to any number deemed suitable by it, from out of the bids received.
20. The successful tenderer shall be required to execute an Agreement in the proforma attached with this tender document within 15 days from the date of receipt of the notice of acceptance of tender. In the event of failure on the part of the successful tenderer to sign the agreement within the above stipulated period, the earnest money will be forfeited and the acceptance of the tender shall be considered as voluntarily cancelled.
21. Tenders submitted in the form other than the one supplied by Bank and without the payment of the prescribed fee will be summarily rejected.
22. Failure to furnish the required Earnest Money Deposit and tender fee will entail disqualification and such tenders will be rejected.
23. Applicable TDS will be deducted from the contractor's bills at the time of payment.
24. The rates quoted by bidder shall remain firm till completion of all works even during the extended period, if any, on any account what so ever. It may be noted that no deviation on this account will be acceptable and offer not containing firm price shall not be considered.
25. Bidders are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their tenders as to nature of work, site conditions, means of access to the site etc. Non- familiarity with the site conditions will not be considered a reason either for extra claims or for not carrying out the work in strict conformity with the specifications. For site visit and any clarification / information/Assistance, the intending bidders may contact the Senior Manager (Mechanical), Indian Bank, Corporate Office, Premises & Expenditure Department, Avvai Shanmugam Salai, Royapettah, Chennai-600014, Tel No. – 044-28134501, 4401

26. Bidders are advised to acquaint themselves fully with the description of work, scope of services, time schedule and terms and conditions including all the provisions of the tender document before framing up their tender
27. Bidders are advised to submit the bid strictly based on the terms and conditions and specification contained in the technical bid documents and not to stipulate any deviations. Conditional bids are liable to be rejected.
28. It will be obligatory on the part of the Bidder to sign the technical bid documents for all the components & parts. After the work is awarded, he will have to enter into an agreement for work awarded on a non-judicial stamp paper of requisite value at his own cost within 15 days from date of receipt of acceptance order.
29. Before quoting Contractor must satisfy himself with existing site conditions and given dimension may vary as per existing site conditions after approval of employer no extra cost will be paid upon contractor quoted amount.
30. The Indian Bank does not bind itself to accept the lowest or any bid and reserves to itself the right of accepting the whole or any part of the tender and the bidders shall be bound to perform the same at the rate quoted.
31. The Contractor shall be required to maintain the site and the building areas in a neat and clean condition at all times to the satisfaction of the Employer. The Contractor shall especially take care to keep areas free from getting water logged, from concrete/mortar drippings, bricks, steel, shuttering materials or any other material / rubbish.
32. Debris and items removed from the building have to be neatly stacked at site and then periodically removed (maximum of one week), carried away by the Contractor and disposed off as per the rules and regulations of the Local Authorities concerned. No debris shall be thrown loose from upper floors. No floor, roof or other part of the building shall be over-loaded with debris or materials as to render it unsafe.
33. Employer reserves the right to insist on selection of material, workmanship, detailing and finishes, which they consider, is appropriate, and suitable for the intended use. The contractor is not eligible to claim extra on this account.
34. Employer will require the contractor to produce, samples of all the materials, accessories/ finishes prior to procurement/ manufacture. The samples of the materials for the work shall be got approved from the Employer. Failure to comply with these instructions can result in rejection of the work/ materials.
35. The Bidder should note that he should execute his part of work without causing any damage to any component of the building and also without disturbing the occupants. Any damage so caused shall be made good at the cost & risk of the Bidder.
36. The successful Bidders shall include, in the quoted price, all allied civil works such as chasing in wall, drilling holes, shaft lighting floor sill & sides, civil ratification works, electrical works for doors etc to support the frames, partitions, make the surface good after grouting, MS pipe scaffolding during erection of lift etc.
37. The successful bidder shall also be responsible for the safety and security of all their materials and also for ensuring fire prevention steps at all times in the working premises including their part of the work. The successful bidder has to place full time representative at site, the representative should have thorough subject knowledge.

38. The work shall be carried out without disturbing the occupants of the building. Necessary barricading of the area, if required from the rest of the area shall have to be arranged by the successful contractor at no extra cost.
39. The contractor should ensure payment of minimum wages + VDA to all labourers/ workmen staff employed by him in line with central/state labour wage act whichever higher.
40. The Contractor shall comply with and give all notices required under any law, rules, regulations, or bye-law of Parliament, State Legislature or Local Authority relating to works. If needed, the Contractor has to obtain required permission/ approval from the building secretary/ association. The Contractor shall before commencing the execution of work issue a certificate to the Employer that he has obtained all the permissions Registrations and give all the notices as are required to be obtained or given under law particularly blasting permission, Police permission etc.
41. Necessary Insurance to be obtained to this workmen or his sub-contractors workmen if any the insurance coverage shall be all risk and erection policy and third party liability by contractor and the same shall be submitted to Bank before commencing the work
42. From commencement to completion of works, the Contractor shall take full responsibility for the care of the work and for taking precautions to prevent loss or damage to the work to the maximum extent possible and shall be liable for any damage or loss that may arise to the works or any part thereof from any cause whatsoever including causes of fire, lightning, explosion, earthquake, storm, hurricane, floods, inundation, subsidence, landslides, rock slides, riots (excluding civil war, rebellion, revolution and insurrection) or any latent defect or damage and shall at his own cost repair and make good the same so that at all times the work shall be in good order and condition and in conformity in every respect with the requirements of the Contract.

For the purpose of this condition this expression "from commencement to completion of works" shall mean the period starting with the date of issue of Work Order or 7 days from the date of handing over of site whichever is later and ending with issue of Virtual Completion Certificate.

Without limiting the obligations and responsibilities under this condition, the Contractor shall insure and keep insured the works from commencement to completion, as aforesaid, for the full contract value including Price Variation Adjustment if any against the risk of loss or damage from any cause whatsoever including the causes enumerated in the foregoing paragraphs. In the event of there being a variation in the nature and extent of the works, the Contractor shall from time to time increase or decrease the value of the insurance correspondingly. All the premia for the insurance shall be borne and paid by the Contractor.

Before commencing the work, the Contractor shall without limiting his obligations and responsibilities under this condition, insure against any loss of life or injury to any personnel in the employment of Contractor / Sub-Contractor/nominated Sub-Contractor. For this purpose, an insurance shall be taken by the Contractor /Sub-Contractor. Such an insurance shall be taken to include both employees/workmen covered by the Workman's Compensation Act 1923, as well those employees/workmen not covered by the said Act. Separate insurance policies may be taken for employees/ workmen covered by Workman's Compensation Act 1923, and employees / workmen not covered by the said Act. All the premia shall be paid by the Contractor. Policy/Policies taken under this para for the personnel in employment with the Contractor / Sub-Contractor may be in their Employer's names of the Contractor / Sub-Contractor / nominated Sub-Contractors. In the event of any loss or injury to personnel in employment with the

Contractor / Sub-Contractor / nominated Sub-Contractors, the Employer and Contractor shall recover directly from the Insurance Company and ensure that payment of the same is made to the affected parties including the Employer. The policy in original shall be deposited with the Employer.

The Contractor shall at all times indemnify and keep indemnified the Employer against all losses and claims for injuries or damage to any person or any property whatsoever which may arise out of or in consequence of the construction and maintenance of the work and against all claims, demands, proceedings, damages, costs, charges and expenses whatsoever in respect of or in relation thereto. Before commencing the execution of the works, the Contractor shall without in any way limiting his obligations and liabilities under this condition, insure at his cost and expense against any damage or loss or injury which may be caused to any person or property including the employees and directors of the Employer and their property by or in the course of the execution of the works. Such insurance to be known as the Third Party Insurance shall be in a sum of **Rs. 1.0 lakh per person**. The Insurance policy to be so obtained by the Contractor shall be deposited by the Contractor with the Employer within fifteen days of its issue by the Insurer.

GUARANTEE

The tenderer should give one year Guarantee period from the date of completion of the work. During the Guarantee period, the tenderer should attend the fault at this own cost and risk. Guarantee period would cover comprehensive maintenance of supplied Lift.

PAYMENT OF COSTS

The terms payments for the purchase of listed items & Accessories.

- a. 70% Contract Value of the lift will be paid after supply.
- b. 20% of the contract value will be paid after installation, testing & commissioning of the lift.
- c. The balance 5% will be retained during the Defects liability period as performance guarantee and will be released at the end of Defects liability period, subject to satisfactory rectification of defects noticed, if any. EMD & retention amount held in our Indian Bank's books will not carry any interest. Tenderers quoting commercial terms other than those indicated will be liable for rejection.

Completion period:

The work is to be completed in all respects within 3 months from 7 days from the date of work order or handing over site, whichever is later. However, at the option of the Employer, delayed completion may be accepted subject to levy of liquidated damages @ 1% of the final contract value per week of delay or part thereof, subject to a maximum of 5.0% of the final contract value.

If the work is not started within 15 days from the date of issue of work order then Employer may terminate the work order without assigning any reason. If during the execution of the work, the progress of work is not considered to be satisfactory and is not consistent to be in contingent with the period of the completion of the work then the Bank may terminate the work order by giving a final notice to the contractor.

Indemnity clause:

The firm shall indemnify the Bank against all actions, suits, claims and demands brought or made against it in respect of anything done or committed to be done by The firm in execution of or in connection with the work of this contract and against any loss or damage to the Bank in consequence to any action or suit being brought against the firm for anything done or committed to be done in the execution of this contract. The firm will abide by the job, safety measures prevalent in India and will free the Bank from all

demands or responsibilities arising from accidents or loss of life, the cause of which is the firm's negligence. The firm will pay all indemnities arising from such incidents, without any extra cost to Bank and will not hold the Bank responsible or obligated. The Bank may at its discretion and entirely at the cost of the contractor/vendor defend such suit, either jointly with the firm or singularly in case the later chooses not to defend the case.

Force Majeure:

This clause will be operative only if the work is delayed by

- a) Acts of God
- b) Earthquake or floods or similar natural calamities.
- c) Serious loss or damage by fire or lightning.

In case any Force Majeure condition herein mentioned occurs and continues for a period exceeding 15 days the parties hereto undertake to sit together and devise ways for expeditious and proper performance of the obligations of the parties under this order.

Arbitration:

“ In the event of any dispute or difference relating to interpretation and application of provisions of the contract and all disputes/claims whatsoever which shall either during the continuance of the contract or afterwards either between the parties to the contract or the respective representatives touching the construction/application of any provision/clause mentioned in the contract or any account or liability between the parties to the contract or as to any act or deed or omission of any party to the contract, in any way relating to these presents, shall be first at the discretion of the Bank attempted to be resolved in good faith by mutual discussion within 30 days of the dispute or question being raised failing which the same shall be settled by arbitration in accordance with provisions of Indian arbitration and Conciliation act 1996.

The Parties concerned shall designate an arbitrator on mutual consent/consensus. In the event of no consensus being arrived, an Arbitral Tribunal shall be constituted comprising three Arbitrators, each party appointed one arbitrator and a third arbitrator to be appointed by the two arbitrators so appointed by the parties. The venue of the arbitration shall be exclusively at Chennai and any award passed by arbitrator or the arbitral Tribunal shall be final, conclusive and binding upon the parties and shall be deemed to have been made between parties themselves. The parties to the dispute shall share equally the cost of arbitration as intimated by the arbitrator”.

DEPUTY GENERAL MANAGER (IED),

Indian Bank Corporate Office,
Premises, Estate & Expenditure Dept,
No. 254-260, Avvai Shanmugam Salai,
Royapettah, Chennai – 600 014.

Signature & Seal of the Tenderer

ARTICLES OF AGREEMENT

THIS AGREEMENT is made on this day ofmonth of between Indian Bank, a body Corporate constituted under the Banking Companies (Acquisition and Transfer of Undertaking) Act-1970 and having its Corporate Office at No. 254-260, Avvai Shanmugam Salai, Royapettah, Chennai – 600 014 (hereinafter referred to as the "Employer") which expression shall include its successor, legal heirs and assignees of the one part.

AND M/s. having its office at
.....
(hereinafter referred to as the "Contractor") which expression shall include its successor, legal heirs and assignees of the second part.

WHEREAS the Employer has caused drawings and tender documents for 'Supply, installation, testing, commissioning and maintenance of one number passenger lift (6 person capacity) after dismantling existing lift under buyback at Indian Bank Executive Quarters, Eldams Road, Alwarpet, Chennai-600018'.

AND whereas the Employer has called for tender vide ref. no. dated..... .

AND whereas the contractor has submitted the tender ref. no. dated to the Employer on

AND whereas the Employer has issued the work order ref dated..... to the contractor to do the work.

AND whereas the Contractor has agreed to execute the work as per drawings, specifications, conditions of contract and Work Order.

AND whereas the Employer has accepted the Contractor's tender as aforesaid and whereas the tender submitted by the contractor has been accepted for such sum as may be ascertained to be payable in terms of the Bill of Quantities and which sum is estimated to be Rs. (Rupees) hereinafter referred to as the said "Contract Agreement".

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:-

- 1) In consideration of the said Contract Sum to be paid at the times and in the manner set forth in the said Conditions the Contractor shall carry out and complete the Repair & Painting Works in terms and conditions herein contained and according to the general conditions of the contract, notice inviting tender, special conditions of contract, general scope of work, technical specifications, schedule of rates and instructions to be given by and the supervision of and to the entire satisfaction of the Employer.

3) **Contract Price, Taxes and Payment Terms :**

Total contract price is Rs. which is inclusive of cost of materials, equipment, installation charges and tools and tackles required for execution of the job. Above price is inclusive of all taxes & duties including GST in respect of this contract. No claim in this respect will be entertained. TDS on payments will be deducted and deposited by Employer and the provisions of tax deductions at source under income tax act 1961.

However, interim payment will be made as per the site measurements/as per payment schedule.

4) **Completion Period:**

Time is the essence of the Contract. The work is to be completed in all respects within **3 month** reckoned from 7th day from the date of issue of the Work Order or handing over of site whichever is later. If the Contractor fails to complete the job within the agreed time period the Contractor will have to bear liquidated damages as per the relevant clause mentioned in the Tender Documents.

5) **Earnest Money:**

The Contractor has deposited an amount of Rs. 27,000/- (Rupees Twenty Seven Thousand only) as earnest money.

6) **Inspection of Site:**

The Contractor has inspected the site before submitting his tender and has satisfied himself as to the nature of the work to be executed on the site. Any difficulties which the Contractor may come across in the course of the work shall in no way relieve the contractor to claim or receive extra payment unless the Employer is of the opinion that such difficulties could not have been foreseen and the Employer consents in writing.

7) **Supply of Material and Labour:**

The Contractor shall arrange all labour, materials, equipments, tools, tackles and everything necessary for the completion of the work. The Contractor will assume all responsibility for the safety, protection and accounting of all material and equipment and the work during construction. All materials used by the Contractor shall be of the best quality conforming to the required specification mentioned in the tender document and will be subject to the approval of the Employer. All such materials not approved by the Employer shall be removed at once by the Contractor at his own expense. The Contractor shall also at his own expense arrange for carrying out any test of materials which the Employer may from time to time require or if so desired by the employer.

8) **Defective Work / Materials:**

If any part of the work done by the Contractor is found defective in workmanship or if bad or inferior materials have been used the Contractor shall at his own risk and cost demolish all such defective work and rebuild the same and / or replace the bad or inferior materials used within a time frame mentioned to the satisfaction of the Employer. The decision of the Employer in this regard shall be final and binding on the Contractor. In case of default of the contractor to remove the defective work and rebuild the same or replace bad or inferior materials as directed by the Employer, the Employer shall be entitled to employ anyone else to carry out the same at risk and cost of the Contractor and recover all expenses incurred in this regard from the contractor.

9) **Inspection of Work:**

During progress of the work the Employer shall be entitled at all times to have access to and inspect the work.

10) **Supervision:**

The Contractor shall provide one or more competent and technical qualified engineers duly and fully authorized to act on his behalf in all matters relating to the works to be carried out under or any other matter concerning this agreement and who shall at all times be present at the works while any work is in progress as per directions, explanations & instructions of Employer.

11) **Compliance with Statutory Regulations & Work Rules:**

The Contractor shall be responsible for complying with the applicable laws / bye laws / Regulations in force from time to time and shall have to bear all statutory liabilities to the workers / personnel engaged for the job. Nothing will be paid extra by the employer in this regard. If any amount is paid by the Employer with this regard the same amount shall be deducted from the Contractor's dues. The Contractor shall have to arrange insurance cover for the workers / personnel engaged by him/ other parties engaged for the job (3rd party insurance)/occupants of the building.

12) **Determination of Contract:**

In the event of Contractor failing to keep / adhere to agreed schedule of work, or in the event of the Contractor failing to comply with the provisions of this contract by default and / or negligence and / or suspension of work or in the event of Contractor failing to complete the work within the stipulated period, the Employer may terminate this Agreement forthwith and employ, at the Contractor's risk and cost, another contractor or sufficient number of workmen to complete the work.

13) **Force Majeure:**

This clause will be operative only if the work is delayed by

- a) Acts of God
- b) Earthquake or floods or similar natural calamities.
- c) Serious loss or damage by fire or lightning.

In case any Force Majeure condition herein mentioned occurs and continues for a period exceeding 15 days the parties hereto undertake to sit together and devise ways for expeditious and proper performance of the obligations of the parties under this order.

14) **Arbitration:**

“ In the event of any dispute or difference relating to interpretation and application of provisions of the contract and all disputes/claims whatsoever which shall either during the continuance of the contract or afterwards either between the parties to the contract or the respective representatives touching the construction/application of any provision/clause mentioned in the contract or any account or liability between the parties to the contract or as to any act or deed or omission of any party to the contract, in any way relating to these presents, shall be first at the discretion of the Bank attempted to be resolved in good faith by mutual discussion within 30 days of the dispute or question being raised failing which the same shall be settled by arbitration in accordance with provisions of Indian arbitration and Conciliation act 1996.

The Parties concerned shall designate an arbitrator on mutual consent/consensus. In the event of no consensus being arrived, an Arbitral Tribunal shall be constituted

comprising three Arbitrators, each party appointed one arbitrator and a third arbitrator to be appointed by the two arbitrators so appointed by the parties. The venue of the arbitration shall be exclusively at Chennai and any award passed by arbitrator or the arbitral Tribunal shall be final, conclusive and binding upon the parties and shall be deemed to have been made between parties themselves. The parties to the dispute shall share equally the cost of arbitration as intimated by the arbitrator".

Submitting to arbitration may be considered as an additional remedy and it does not preclude the parties to seek redressal/other legal course.

IN WITNESS whereof the said contracting parties have set their hands and seals on the day and year first hereinabove witness.

Witness Address

Employer

Witness Address

Contractor

(TECHNICAL SPECIFICATIONS)

1. General

These specifications cover the details of Electrical Elevator equipment to be supplied, inspection as may be necessary before dispatch, delivery at site, installation, testing, commissioning and handing over and the defects liability for a period of 1 year after virtual completion of all works.

These specifications shall be read in conjunction with the General Conditions of Contract (GCC) and Special Conditions of Contract (SCC) with all correction slips as well as schedules and drawings. In the event of any discrepancy between these specifications and inter-connected contract documents, the stringent of the two shall be followed.

The equipment and installation covered by these specifications and drawings shall conform to codes of practice in force and highest standards of workmanship and materials. This work shall be done in accordance with the provisions of the Lifts Act, and subsequent amendments, as also any state or local Act in force and latest Indian Standard 14665.

The Electrical wiring shall strictly comply with IS:732 and the entire installation shall be in accordance with the Indian Electricity Act 2003 and Indian Electricity Rules 1956 as amended to-date.

The Contractor shall follow all statutory requirements as well as best trade practices in the manufacture and installation of elevators. The Contractor shall arrange to obtain the statutory approval of the Inspectorate of Lifts as may be required before commencement of the erection and for commissioning of the Elevators and handover for operation after satisfactory tests.

2. DRAWINGS

Before commencing work, the Contractor shall prepare and submit all drawings necessary to show the general arrangement and details of elevator installation. These drawings must be approved by the Employer and by Statutory Authorities before installation and shall become part of the contract.

The Contractor shall, within 2 weeks of receipt of a Letter of award of contract, submit 3 copies of all working drawings showing hoistway and machine room layouts clearly indicating and specifying all connected structural, electrical and architectural works including imposed structural static / dynamic loads and electrical ratings. Within 15 days of receipt of letter of award of contract, the Contractor shall obtain from the Employer all the information he needs to prepare his drawings and shall have any interaction with the Employer to finalise all parameters and data for design. The Contractor will be held responsible for any discrepancies, errors and omissions in the drawings or particulars submitted by him even if these have been approved by the Employer. On approval of these drawings by the Employer (within 1 weeks of submission of full documentation), the Contractor shall submit five copies of approved working drawings incorporating corrections / comments, if any made by the Employer, and shall immediately commence work.

On completion of work, the contractor shall supply four sets of CD's and four copies of the detailed wiring diagram, as-built drawings and equipment maintenance manuals. Further, a copy of such detailed diagram and a set of instructions for evacuation of passengers, in case of breakdown of the elevator, shall be framed and installed in the respective machine room by the Contractor.

The Contractor shall carry out all the work strictly in accordance with drawings, details and instructions of the Employer.

3. LIFTS CONTRACTOR'S RESPONSIBILITIES: Main and Ancillary Works

Dismantling of existing passenger lift (Johnson make).

All cabling, wiring (including new wiring for hoist way lighting with LED bulb/tube light) and earthing from the electrical panel to lift room to be done by the contractor.

All machine bases, pedestals, and structural steel supports and brackets for the installation, to suit the sizes of the hoist-ways. Steel required for insert plates/ISMB/Beams for support of equipments in machine room and grouting/installing on foundation/slab/ wall.

Sill tracks including sill supports, if required.

Lift-pit ladders, Screen guards, fascia plates and other protection for installation.

All chasing and cutting of pockets/holes and making good. (All cutting, fastening and chasing work shall be as approved by Employer).

Ensuring safety against accidents including barricading all openings and caution signs. All statutory rules and regulations shall be observed.

MS pipe Scaffolding for installation in the lift-shaft. Bamboo scaffolding strictly prohibited.

All other items necessary for satisfactory execution and completion of works, whether specified or not.

Any additional work to satisfy the inspection authority for obtaining approval.

Any minor chipping work required for adjustment of Guide rails/carriage etc.

Sealing of all holes made in RCC walls during the course of installation.

Commissioning spares.

Price of commissioning spares (Itemised with Quantity) shall be included in elevator supply rate.

Obtaining approval of elevator inspector before commissioning of elevator.

The space will be provided for safe keeping of lift material. Bank will not responsible for any loss/theft.

Employer shall be responsible for safety of elevator and its accessories only after approval of elevator by lift-inspector and handling over to Employer after checking of complete satisfactory operation as per specification.

All the material shall be offered for inspection in factory and shall be dispatched to site only after receipt of Release order from Employer.

Each and every material, including cables, required for satisfactory erection and operation of elevator shall be included in the scope of supply and work.

4. SOUND REDUCTION

The Contractor shall provide necessary sound reduction materials, such as rubber pads of suitable density to effectively isolate the machine from the machine beams and/or flooring/ walls.

Noise level inside cars and in the machine room shall be maintained at minimum levels and in any case not more than specified under PERFORMANCE PARAMETERS.

5. TRACTION MACHINE

The machine shall be gearless traction type with motor, electro-mechanical type of brake and driving sheave mounted in proper alignment on a single heavy cast-iron base or steel bedplate.

The worm shaft shall be fitted with roller bearings to take end thrust. The sheave shaft shall also be fitted with roller bearings to ensure proper alignment. All shafts shall be provided with well-designed keys.

Rotating parts shall be statically and dynamically balanced.

The drive sheave shall be designed with machined V-grooves to ensure adequate traction with minimum wear on rope. All sheaves including deflector sheaves, where used, shall conform to I. S. 14665 (Part 4 section 3)

Adequate and dust – proof lubrication shall be provided for all bearings or gears.

The brake shall be suitably curved and provided with fire-proof friction lining. The operation of brake shall be smooth, gradual and with minimum noise. The brake shall be designed to be of adequate size and strength to stop and hold the car at rest with rated load. The brake shall be capable of operation automatically by various safety devices, current failure and by the normal stopping of the car. The brake shall be released electrically. It shall also be possible to release the brake manually so as to move the lift car in short stops. Suitable Brake release tools shall be supplied and stored in the machine rooms/ agreed place.

For manual operation of elevators, up and down direction of the movement of the car shall be clearly marked on the motor or traction machine. A warning plate in bold signal red colour "to switch off the mains supply before releasing the brake and operating the wheel "shall be prominently displayed.

6. HOIST MOTOR

The motor shall be suitable for 415 Volts +10%, 50 Hz. + 6%, 3 Phase A.C. Supply. The motor must be designed for arduous elevator duty, rapid reversals and constantly repeated starts and stops as defined in the relevant codes of practice. All windings must be heavily insulated, adequately impregnated for tropical climate and mechanically strengthened and must be specifically designed to have a high starting torque and low starting current characteristics within the limits acceptable to electricity supply co. requirements and I.E. Rules. The motor shall be designed in such a way as to withstand occasional overloading above its rated capacity and shall have overload protection of relay and protection against phase failure as well as phase reversal. The motor shall have good speed regulation under different conditions of load and shall be designed to give a noiseless and vibration-free operation. Insulation shall be class F. HP of the motor of each lift should be specified.

7. MOTOR CONTROL AND DRIVE

The lift motor shall be controlled by a variable voltage variable frequency (V.V.V.F.) micro-processor control system which shall control and monitor every aspect of elevator operation at all stages of the car motion cycle on real time basis.

The A.C. V.V.V.F. drive system shall control A.C. voltage and frequency concurrently with the hoist motor to regulate the elevator's actual performance to match closely the ideal speed pattern, obtain maximum efficiency of operation and provide a very smooth ride.

Frequency shall range between zero and rated value.

The Controller shall be provided with a self-diagnostic programme to keep downtime to a minimum possible.

The controller shall intelligently adjust door times in response to car calls, hall calls and "Door Open" button operation.

An Inspector's changeover test switch and set of test buttons shall be provided in the controller. Operation of the Inspector's changeover switch shall make both the car and landing buttons inoperative and permit the elevator to be operated in either direction from the controller for test purposes by pressing corresponding test buttons in the controller. Controller should have Integrated Field Test Mechanism. It shall not, however, interfere with the emergency stop switches inside the car or on the top of the car.

8. GUIDES AND FASTENINGS

- I. Guide-rails for car and counterweight shall consist of machined mild steel tee sections, erected plumb, and securely fastened to the Elevator well framing by heavy steel brackets, suitably spaced, to limit deflection of guide-rails to 3 mm under normal working conditions.
- II. The guide-rails shall be of suitable section with ends forming matched joint and shall be connected with steel fish plates.
- III. Guide-rails shall cover the full height of the hoistway and pit.
- IV. Guides shall be designed to withstand the action of safety gear when stopping a counter weight or fully loaded car.
- V. The max. deviation from true plumb and alignment of guide rails shall be 2 mm.
- VI. All support framing shall be rigid and shall be designed to restrict displacement of the point of support of brackets to 3 mm under normal working conditions.
- VII. The whole guide-rail installation, including expansion joints, shall be designed for a smooth ride.
- VIII. The guide-rails shall be protected during storage and installation with a rust-inhibiting coating which shall be cleaned off on completion of installation.
- IX. Guide-shoes shall be adjustable type and mounted so as to provide continuous contact with guide rails under all conditions.

Guide shoes shall be provided at top and bottom of each side of car and counterweight and shall be designed for quiet operation.

Additional guide shoes shall be provided on each side of buffer frame in case of oil-buffers.

9. SAFETY

In addition to other specifications, the Elevator shall be provided with safety devices as follows:-

- I. Against overload.
- II. Safety gear on car so that in the event of rope breaking or loosening, the car will be brought to rest immediately by means of grips on the guides.
- III. The over-speeding car shall be automatically brought to a gradual stop on guide-rails and power supply to the hoist motor shall be switched off.
- IV. Over-speed centrifugal governor operating the safety gear in case of over-speeding of car in the down direction.
- V. Car gate lock in the event of car gate being opened, when passengers are in the car, the elevator will be brought to rest.
- VI. Over-travel limit switches at top and bottom limits of travel to disconnect the power supply and apply brakes to stop the car within a defined safe distance in case of over-travel in either direction
- VII. Ultimate terminal switches to stop the car automatically within top and bottom clearances independently of normal over-travel limit switches but with buffers operative.
- VIII. Protective guards to counterweights in pit, rope sheaves and wherever required.
- IX. Toe guard apron to the car platform.

10. CAR

a. Cabin Size

The internal clear dimensions of the cabin shall be as per those specified in IS 14665-Part I. The car shall be so mounted on the frame that vibration and noise transmitted to the passengers inside is minimised.

b. Frame and Safety Device

The car frame shall consist of mild steel channel top and bottom securely riveted or bolted and substantially reinforced and braced so as to relieve the car enclosure of all strains when the safety device comes into action due to overspeed or when the capacity loaded car is run on the buffer springs at normal speed.

The safety device mounted on the bottom members of the frame operated by a centrifugal speed governor shall be arranged to bring the car to a gradual stop on the guide-rails in the event of excessive descending speed; and provision shall be made to shut off the power supply to the motor.

c. Buffers

Spring buffers (2 Nos.) or as recommended by supplier shall be furnished and installed in the pit under the car and counterweight. These buffers shall be mounted on RCC Pedestals in the pit. The car buffer spring must be of correct design to sustain the car with capacity load without damage, should the car

terminal limits become inoperative. The car buffers must be located symmetrically with reference to centre of car.

The Contractor may alternatively offer oil type buffers. The plunger shall be mild steel, designed for a very high factor of safety and accurately machined. A toughened rubber bumper shall be fitted to the plunger top to cushion the impact of steel buffer plates attached under the car and the counterweight. An oil gauge shall be provided to check the oil level.

d. Counterweight

The Elevator shall be suitably counter-balanced for smooth and economical operation. Cast iron weights shall be contained in a structural steel frame properly guided with suitable guide shoes (4 Nos).

Substantial expanded metal counter-weight screen guard shall be furnished and installed, as required by Lift Inspector.

e. Hoisting and Governor Ropes

Bright steel wire ropes with fibre cores suitable for elevator duty shall be used for hoisting ropes. The roping ratio shall be 2:1.

Not less than 3 independent suspension ropes shall be provided and designed to share load equally by means of adjustable shackle rods with equalizer springs at each end of hoisting ropes.

Each rope shall have adequate section to provide a minimum factor of safety of 4 based on the max. force on the rope.

Governor ropes shall be similar to hoisting ropes. Their ends shall be securely attached to the car and to the safety gear. The governor ropes shall be tensioned by a weight loaded device in the pit.

The contractor shall submit the technical details and source of supply of ropes to the Engineer-in-Charge as well as a certificate of performance of ropes from an approved test laboratory or Authority.

Compensation for travel shall be provided for all elevators having a travel of more than 30m.

f. Enclosure

The car enclosure shall be as per drawings and as specified. The cabin floor, roof and walls shall be free of distortion and undue deflection as per IS 14665 – Part 4, Section 3.

g. Brakes

D.C. brakes will be spring-applied and electrically released. They shall be designed to provide smooth stops under variable loads.

h. Doors

Provision shall be made for vertical and horizontal fine adjustment of doors.

i. Door Operators

The door operators shall be VVVF inverter controlled heavy duty A. C. motor, allowing variable opening and closing speeds and full synchronization of car and landing doors.

j. Travelling Cables

The travelling cables shall be multi-core with high conductivity stranded conductors specifically designed for elevator duty. The cables shall be provided with retaining straps and individual cable clamps.

k. Emergency Lighting

A self-contained, non-maintained emergency light with a trickle-boost charger shall be provided.

l. Emergency Exit and Evacuation

An emergency exit shall be provided on car roof. A safety switch shall be provided to prevent the car travelling when the emergency exit is open.

An emergency key shall be provided on each landing to unlock the doors for evacuation and maintenance.

The doors shall be capable of being opened manually during power failure from inside the car when the car is within a landing zone.

m. Intercom

An Intercom system shall be provided between the car, main landing, machine room and Fire Console room linked to EPABX of Office Bldg.

n. Manual Cranking Facility

Manual cranking facility shall be provided in the machine room/agreed place to facilitate evacuation of passengers in case of power failure. The manual mode shall be in addition to automatic car failure operation, specified elsewhere.

o. Emergency Stop Switch

A stop switch in the machine room / top of car shall be provided for use by maintenance crew to cancel all car and landing calls for a particular elevator.

p. Maintenance Switch

On operation of the maintenance switch (located on top of the car) by the maintenance crew, the car shall travel at slow speed not exceeding 0.85 m / sec by continuous operation of a button.

q. Landing Door Interlocks

Electrical interlocks shall be provided to ensure that the car does not operate unless all doors are closed and unless the car reaches a landing zone.

r. Overload Indicator

An overload indicator with buzzer shall be provided in the cabin to indicate to the passengers that the car will not start as it is overloaded.

s. Other Features

All features specified in the Schedule shall be provided.

Full length handrails shall be provided on the side wall panels (on both sides).

The door closing time shall be set for min. 5 seconds and the door closing speed shall not exceed 0.25 m/sec.

t. Operating Panels, Buttons and Switches

Main and secondary car operating panels, buttons and switches shall be located on the two front wall panels next to the car door and as specified in the Schedule of Elevators.

All buttons and switches shall be clearly legible with fade-proof text and figures, and shall be easily accessible, all panel letters shall be inscribed with Braille for VC persons.

11. ELECTRIC WIRING

Necessary insulated wiring to connect all parts of the equipment shall be furnished and installed. Insulated wiring shall be flame -retardant and moisture- resistant and shall be run in fire retardant PVC conduits. All cables shall be copper conductors.

Trailing cables shall be PVC sheathed copper conductor multi-core ribbon type designed for elevator service. They shall be flexible and shall be suitably suspended to relieve strains on individual conductors. All copper conductors shall be of appropriate gauge copper to avoid excessive voltage drop. All wires, cables, conduits, metal boxes, fittings and earthing shall comply with statutory requirements and IS specifications.

The controller unit comprising of the main circuit breaker, adjustable overload and phase reversal and phase failure protection, all the circuit elements, transformer, rectifier for D.C. control supply, inverter power pack, terminal blocks etc. shall be enclosed in an insect vermin- proof, sheet- steel floor or wall- mounted cabinet with hinged doors at front or at both front and rear. Proper warning boards and danger plates shall be provided on both sides of the controller casing. Sheet steel used for controller cabinet shall not be less than 18 gauge and shall be properly braced, where necessary. Suitable gland- plate shall be provided for cable entry. The battery for the charger unit shall be suitably placed in the machine room/agreed place.

All sheet steel work shall be surface- treated and painted with two coats of synthetic enamel paint of suitable shade, both inside and outside, over two coats of zinc primer.

12. PAINTING

All exposed metal work furnished in these specifications, except as otherwise specified, shall be given one shop coat of anti-corrosive primer after approved surface treatment of metal surfaces and two coats of approved enamel paint of approved shade. Minimum DFT specified shall be met for each coat of paint. Painting shall be guaranteed to last for the guarantee period specified. All recommendations of the Paint Manufacturer shall be strictly complied with.

13. WORKS TESTS

The following tests shall be carried out at Works. The Employer shall be given notice of the time and procedure of the tests before they are carried out, and shall be given facilities for observing the tests at Works. Contractor may specify the tests he will be able to show in the factory.

- a) High voltage works tests of equipment, which is not already tested in accordance with appropriate IS codes.
- b) Buffer test.

14. TESTS ON COMPLETION

The following tests shall be carried out to the satisfaction of the Engineer-In-Charge.

- I. Insulation resistance and earth test for all electrical apparatus.
- II. Continuous operation of the elevator under full load conditions and simulated starts and stops (150 nos. per hour each) for one hour at the end of which time the service temperature of the motor and the operating coils shall be tested. This shall be as per I.S. specification.
- III.
- IV. The car shall be loaded until the weight on the rope is twice the combined weight of the car and the specified load. The load must be carried on for about 30 minutes, without any sign of weakness, temporary set or permanent elongation of the suspension rope strands.
- V. The following items shall be tested :
 - a. Levelling accuracy at each landing in conditions of fully loaded and empty car.
 - b. No load current and voltage readings both on 'Up' and 'Down' Circuits.
 - c. Full load current and voltage readings both on 'Up' and 'Down' Circuits.
 - d. One and quarter load current and voltage readings both on 'Up and 'Down' Circuits.
 - e. Stalling current and voltage and time taken to operate overload.
 - f. Overload protection.
 - g. Gate sequence relays, if provided and installed.
 - h. Car and landing door interlocks.
 - i. Collective control and priority sequences, if installed.
 - j. Safety gear mechanism for car and counterweight with fully loaded car and also with only 68 kg load.
 - k. Speeds on Up and Down travel with full load, half load and empty car.
 - l. Door contacts.
 - m. Final terminal stopping device.
 - n. Normal terminal stopping device.
 - o. Car and counterweight buffers with contract load and contract speed.
 - p. Operation of controllers.
 - q. Manual operation of elevator at mid-way travel.
 - r. Emergency operation.
 - s. Phase failure and Phase reversal test.
 - t. Any other test necessary.

u. Inspection test plan (as given below).

	Tests	Reference Documents	Sample size	Scope of Inspection		
				Employer/ Vendor Consultant/ Third Party	Remark	
A	Type Tests					
	For Control Panel					
i	Temperature rise test	IS13947,IEC 60947		W	R	
ii	Dielectric Properties	-do-		W	R	
iii	Short Circuit withstand capacity	-do-		W	R	
iv	Verification of IP protection	-do-		W	R	
	For Motor					
i	Type Test Certificate	IS 8789		W	R	
B	Routine Tests					
	For Control Panel					
i	Routine Test Certificates	As per relevant IEC	100%	W	R	
	For Motor					
i	Routine Test Certificates	As per relevant IEC	100%	W	R	
C	Site Tests					
i	Insulation resistance test and HV test	ISI4665	100%	W	R	
ii	Operation and Interlock sequence test on control circuit	- do -	100%	W	R	
iii	Earthing continuity tests	- do -	100%	W	R	
iv	Test to determine that the motor, brake, control equipment and door locking devices and limit switches function correctly.	- do -	100%	W	R	
v	Brake to be tested to check whether it can sustain a car at rest with 125% of rated load.	- do -	100%	W	R	
vi	Test to determine that the car raises and lowers at rated speed.	- do -	100%	W	R	
vii	To test whether the lift car achieves the rated speed.	- do -	100%	W	R	
viii	To test whether the safety gear stops the lift car with rated load (Over speed test)	- do -	100%	W	R	
	Note:					

	1) W = Witness, R = Review.				
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V. Tests on completion shall also be performed to the satisfaction of Inspector of Lifts.

15. STATUTORY APPROVALS

All statutory approvals from commencement to commissioning of elevators including license for operation of the lifts shall be obtained by the Contractor from the Inspector of Lifts and other Authorities. However, the Employer will provide all necessary assistance for providing documents, drawings and certificates pertaining to other contractors, if required.

16. FEATURES REQUIRED FOR VVVF ELEVATORS (1 m/s)

a. Fireman's Switch

A fireman's toggle switch shall be provided in a break glass for the specified elevator at ground floor to enable firemen to bring the elevator non-stop to ground floor from any location and to cancel all calls until the car is operated on attendant control. The Fireman's switch shall bring other two lifts also to ground floor and will remain there with doors open.

b. Emergency Power Operation

In case of power failure, Automatic Rescue Devices shall bring the elevator safely to the nearest landing and open the doors till power supply is restored and then permit operation of Elevators on emergency power. Emergency power supply should be provided for lighting in the CAR, Standby genset power shall also be supplied to car lights, fan, alarm and intercom (The generator set will be installed by the Employer).

In addition to the standby genset power, a trickling battery shall be provided to supply power to emergency light fixtures, alarm and intercom.

c. Profile Generator

A profile generator or similar device shall be provided to use the car at an optimum speed level and to improve levelling accuracy.

d. Data Storage and Retrieval

Data from daily operations shall be stored in the control system and shall be retrievable.

Data shall include all particulars of calls, mode of operation, door open/close, acceleration / deceleration, stops, status etc. The contractor shall specify in his offer the full capability of his system in this regard.

It should be possible from such retrieved data to prepare an up-dated traffic analysis at any time.

e. Anti – Nuisance

If number of calls registered is in excess of corresponding car load, all car calls shall be cancelled.

f. Home Landing Facility

A car shall return to a pre-determined landing after the last call is answered.

g. Fire Alarm Home Landing (Through BMS)

The contractor shall provide only potential free contacts and communication ports for fire alarm home landing through BMS.

h. Load Non stop

When the car load exceeds a predetermined limit, the elevator shall not respond to hall calls.

i. Parking shut - off

When the parking switch is turned on, the car shall proceed to a pre-determined parking floor answering calls on the way. Lights and fans shall then be automatically turned off and a " PARK " sign shall be displayed.

j. Separate door times

When a car responds only to hall calls or only to car calls, the door shall open for a shorter time than when responding to both car and hall calls.

k. Door Safety

Multi-beam infrared / ultrasonic electronics curtains shall be provided to scan the doorway and reverse the door closing in case of any obstruction.

l. Door Failure Operation

When an obstruction prevents a door from opening, the controller shall attempt its removal by repeated opening and closing, failing which the car shall travel to the next floor.

m. Double Door Operation

If both up and down calls are registered at a hall which is the last registering hall in the direction of the car, the elevator shall travel to that hall and open / close the doors. After this, the car shall reverse its travel and shall open / close the doors again unless no car calls are registered at that floor.

n. Nudging Door Operation

When the doors remain open for more than a predetermined period, a buzzer shall sound and the door shall close automatically. The door sensing device shall be rendered inoperative but the Door Open button and the safety shoe shall remain operative

o. Self - Diagnostic Facility

The Controller shall perform self - diagnostic tests and report the health of the system.

The system shall take care of minor faults like door operation and motor overheating.

A universal service tool shall be provided in each machine room to assist technicians in quick pin-pointing of mal-function.

p. Car Failure Operation

In case of car mal-function, the system shall make a self - diagnostic check and then allow the car to travel to the nearest floor at slow speed, if safe.

q. Selective floor Service

Programming for selective floors services shall be software driven.

r. Manual Cranking and Slow speed Travel

A manual cranking facility shall be provided.

Slow speed operation shall be possible from machine room and car top.

s. Auto Fan Off

In case no calls are registered for a pre-set time, the cabin fan shall be automatically switched off.

t. Automatic Rescue Device

In case of mains power failure and elevator control system failure, the elevator's own rechargeable and maintenance free battery power shall move the car to the nearest floor and the door shall open automatically for automatic rescue of passengers. A battery run-down indicator shall be provided.

17. CONNECTIVITY TO BUILDING MANAGEMENT SERVICES

The Contractor shall provide potential-free connectivity and communication ports for elevator to Building Management System.

18. PERFORMANCE PARAMETERS

The following parameters shall be achieved in the installation:

* Leveling Accuracy	± 3 mm for 1.0 m/s speed
* Jerk level	0.9 – 1.5 m/s ³
* Noise level in car	58 dB
* Noise level at 1 M in machine room	60 dB
* Acceleration rate	0.6 – 1.0 m/s ² (adjustable)
* Max. Car vibration	20 mg.

19. SUBMITTALS WITH TENDERS

The following items are also required to be submitted in duplicate along with the tender.

- I. Catalogues with offered items highlighted, motor HP etc.
- II. List of imported components
- III. Compliance Statement for guaranteed performance parameters given in Specification 20.0 above and "Schedule of Elevators" below.

20. MAINTENANCE DURING DEFECTS LIABILITY PERIOD/GUARANTEE PERIOD

Comprehensive maintenance during Defects Liability Period inclusive of periodic servicing, prompt attention to Employer's complaint, prompt rectification of all malfunctions and equipment failures, replacement of defective equipment / parts, replacement of light fittings, lubrication including lubricants, maintaining correct alignment and levelling of cars and ensuring smooth running, starts and stops etc. all complete to Employer's satisfaction shall be done.

21. COMPREHENSIVE ANNUAL MAINTENANCE CONTRACT

Tenderers shall quote the charges for comprehensive AMC (including spares) for the equipments offered. **The scope of the service contract shall include minimum 4 servicing at quarterly intervals and ANY NUMBER of breakdown calls per year.** The rates for AMC shall be valid for a period of 3 years after expiry of defects-liability period, and the amount towards annual service contract shall be paid on half yearly basis after rendering satisfactory service. The defects will have to be rectified within the rectification time after complaint is lodged failing which penalty will be levied as under.

Sr. No.	Defect	Rectification time	Penalty (per day)
1	Defects resulting in failure of Lift	8 hours	Rs.1000/-
2	Any other minor defect	72 hours	Rs. 500/-

22. DISMANTLING OF EXISTING LIFTS

- Dismantling of existing lifts (Johnson make) including all accessories including Guide-rail, existing main electrical cabling shifting of dismantled materials from the site immediately. All civil / PCC/ RCC / Structural work modifications with proper finishing of modified portions/surfaces in the existing lift shaft.
- It will be Contractor's responsibility to display adequate sign boards at respective places during Dismantlement and erection process.
- Contractor shall also take adequate steps to block the entrances to the lift shaft at various levels/ floors to prevent possible accidents.
- Dismantled material shall be removed from site of work at regular intervals after notifying the owner so as to preserve sufficient working space for erection of new elevators.

Signature, Stamp and Name of Contractor

Lift Specification		
S.No		
1	Group Control	Simplex collective control w / wo attendant
2	Position of Machinery	Directly above the lift well
3	Type	PASSENGER AUTO LIFT (6 Passengers) GEARLESS WITH MACHINE ROOM
4	Fireman Service	Yes
5	No. of Passengers	6 (408 Kg)
6	Speed in Meters /sec.	1.0
7	Floors served :	G,1,2,3
8	No. of Stops	4
9	Total Travel (Approx.)	45 feet
10	Size of lift well (Width X Depth)	1600X1320 (as per actual measurement at site)
11	Traction Machine	The traction equipment shall be rated for 6 passengers or for higher standard capacity manufactured by the manufacturer
12	Clear Overhead	4800 mm (as per actual measurement at site)
13	Control System	Micro processor Based V.V.V.F.ARD System
14	Power for Machine	415 Volts \pm 10% AC 3 Phase, 50Hz \pm 6%
15	Auxiliary Power	230 Volts \pm 10%, 50Hz \pm 6%
CAR :		
16	Floor	12mm thick granite tiles (Provision for additional dead weight on this account may be kept) – Granite design and colour to be approved by Bank
17	Side panels	SS 304 panels (1.5 mm) and skirting to be approved by Employer. Additional SS304 handrail on 2 sides. (A mirror glass shall be attached to the rear panel of the lift)
18	False Ceiling	SS304with approved concealed LED lighting as per design to be approved by Bank
19	Car Ceiling	SS304 with white acrylic sheet
20	Car doors	800(wd)*2000(ht). mm (as per site condition) automatic power-operated centre-opening; stainless steel SS304. Multi-beam infra-red electronic door detector. Note: Car door should be transparent type with suitable Laminated Toughened glass of 16 mm (8 + 8 +0.76) thickness fitted.
21	Lighting and Ventilation	LED lamps to give about 200 lux lighting level; Battery – operated emergency light with trickle-boost charging; Two blower fans with suitable ceiling grilles/ Side throw etc. all as per approved design
22	Main Car operating panel (one for car door side)	Aesthetically designed stainless steel SS304 hairline finished face-plate with ring LED illuminated micro-switch/touch-sensitive digital floor call buttons, position indicator; capacity indicator; door open, door close, emergency stop, and battery-operated emergency light and alarm buttons; audio-visual overload alarm, and speakerphone with Braille sign for visually challenged with Government of India norms Built-in service cabinet with fan switch,

		attendant / automatic mode (key operated), attendant switch, non-stop travel button, and group / independent switch. Built-in ventilation slits. Speaker for music play.
23	Auto voice announcement for floor Nos.	Yes
24	Intercom connected to lobby, machine room and fire console room	Yes
25	Attendant/automatic selector switch	Yes
26	Independent operation key switch (with attendant selector-switch)	Yes
27	Non-stop travel button (with attendant selector-switch)	Yes
28	Call cut-out key switch (with attendant selector-switch)	No
29	Automatic fan switch-off at preset time	Yes
30	Public address system for channel music and announcements	Yes
31	Car Capacity Indicator	Yes
32	Automatic Rescue Device	Yes
33	Visual indicator for fire and emergency operations	Yes
34	Additional facilities for disabled persons	Yes, (As per statutory requirement)
35	Cabin sill	Aluminium Extrusion
36	Landing sills	Aluminium Extrusion
37	Hall Button Panel	Hairline finished SS304 stainless steel face-plate with micro-switch / touch-sensitive luminous buttons.
38	Hall lantern and chime	Hairline finished SS304 stainless steel face-plate with illuminated up and down arrows and arrival chime for each elevator landing
39	Hall position indicator panels on all upper floors	Hairline finished SS304 stainless steel face plate with digital floor Nos. for each elevator landing
40	Overload non- start	Yes
41	Lift car full to capacity	No stopping on landing calls

NAME AND ADDRESS OF THE CONTRACTOR:

SIGN & SEAL OF THE CONTRACTOR:

Date:

Place: