

**LBS CENTRE FOR SCIENCE AND TECHNOLOGY  
PALAYAM, THIRUVANANTHAPURAM**



**TENDER FOR SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF  
PASSENGER LIFT AT CENTRE FOR DISABILITY STUDIES, LBSITW CAMPUS,  
POOJAPPURA.**

**Tender No B1/07/2015-16**

**LBS CENTRE FOR SCIENCE AND TECHNOLOGY**  
**(A Government of Kerala Undertaking)**  
Nandavanam, Palayam, Thiruvananthapuram - 695 033, Kerala.  
Phone: 0471 - 2324396, Fax: 0471 - 2337055; Email: mail@lbscentre.org  
**Tender highlights**

<b>Tender For</b>	Supply, Installation, Testing and Commissioning of Passenger Lift at Centre for Disability Studies, LBSITW Campus, Poojappura, Thiruvananthapuram.
<b>Availability of tender forms</b>	From the office of the Director, LBS Centre for Science and Technology, Nandavanam Palayam, Thiruvananthapuram 695 033 and in the website www.lbscentre.org & www.lbskerala.com
<b>Last date of availability of tender forms</b>	25/11/2015, 05.00 PM
<b>Cost of Tender Document</b>	Rs 3,000/- + KVAT @5%
<b>Earnest Money Deposit</b>	Rs 15,000/-
<b>Security Deposit</b>	5% of the agreed price
<b>Due date for submission of completed tender documents</b>	On or before 27/11/2015, 03.00 PM
<b>Opening of Prequalification cum Technical Bid</b>	27/11/2015, 03.30 PM
<b>Firm Period</b>	90 days from the date of opening of Prequalification cum Technical Bid

## **TENDER NO. B1/07 /2015-16**

**Name of work:** Supply, Installation, Testing and Commissioning of Passenger Lift at  
Centre for Disability Studies, LBSITW Campus, Poojappura, Thiruvananthapuram

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## CHAPTER 1 - NOTICE INVITING TENDER

### NAME OF WORK: TENDER FOR SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF PASSENGER LIFT AT CENTRE FOR DISABILITY STUDIES, LBSITW CAMPUS, POOJAPPURA.

Sealed competitive tenders are invited from reputed manufactures/authorized suppliers, who have installed 100 elevators in Kerala and carrying out maintenance contract as on date of notice inviting tender, with sufficient experience and expertise for Supply, Installation, Testing and Commissioning of Passenger Lift at Centre for Disability Studies, LBSITW Campus, Poojappura, Thiruvananthapuram.

The tender forms can be had from the office of the undersigned on submission of a written application along with a non refundable fee of Rs 3000/-+ VAT @ 5% by the bidder in cash or DD or downloaded from the website [www.lbskerala.com](http://www.lbskerala.com) or [www.lbscentre.org](http://www.lbscentre.org), in which case a demand draft for the cost of bid document may be enclosed with the tender. Request for postal delivery of bid document will be considered on payment of Rs 200/- extra in addition to the cost of bid document. Your tender offer duly filled in, signed and sealed in two covers should be addressed to The Director LBS Centre for Science and Technology, Palayam, Thiruvananthapuram, so as to reach him not later than 3 P.M. on 27/11/2015.

1. Name of work : Supply, Installation, Testing and Commissioning of Passenger Lift at Centre for Disability Studies, LBSITW Campus, Poojappura, Thiruvananthapuram.
2. Earnest money to be deposited : Rs 15,000/- as cash or crossed Bank Drafts or Treasury Savings Bank Deposits or Government Promissory Notes or Bank Guarantee or National Savings Certificate payable to the Director, LBS Centre, LBS Centre for Science and Technology, Thiruvananthapuram.
4. Period of completion : Six months from the date of hand over of site
5. Fee for tender document  
Original : Rs 3000/- + KVAT @ 5 %  
Duplicate copy : Rs 1500/- + KVAT @ 5%
6. Time & Date of issue of Tender : From 10.30 AM to 5PM on all working days from 13/11/2015 to 26/11/2015
7. Time & Date of Submission of tender at the office of LBS Centre Palayam, Thiruvananthapuram : Before 3.00 PM on 27/11/2015
8. Time & Date of opening of Tender : At 3.30 PM on 27/11/2015-
9. Firm period of tender : 90 days from the date of opening of Cover I
10. Eligibility to participate in the tender:
  - a. The bidder should be a reputed manufacture/authorized supplier, who have installed 100 elevators in Kerala and undergoing maintenance contract as on date of notice inviting tender, with sufficient experience and expertise in supply installation and commissioning of passenger lifts for multi-storied buildings.

- b. The Bidder should have successfully completed six similar installations during the last two previous calendar years within the state of Kerala
- c. The Bidder should have his/their own infrastructural facilities in Thiruvananthapuram city to carry out such works and its further services.

Note: 1.To establish his/their credentials in respect of eligibility to participate in the tender, the proforma given as annexure of this tender document shall be submitted in duly filled form with necessary supporting documents along with the tender document in COVER 1, failing which the tender will be summarily rejected.

2. If the bidder wishes to include any conditions, he/they may submit the same along with EMD in COVER 1.

Part –I: Technical Bid cover containing EMD, preliminary agreement, technical details, other specifications, printed brochure of the passenger lift proposed, duly signed tender document (in all pages) and other conditions, if any.

Part – II: Priced Bid Document.

The Guarantee period for the installation shall be two years and the bidder will have to give a confirmation in writing that they will provide good service for five years after successful commissioning by the bidder.

The bidder will also quote separately their AMC (all comprehensive) rate for 3 years after guarantee period of two years in a separate cover and submit along with their price document ie. Part II. The AMC amount shall also be taken into account along with the quoted price of the passenger lift for finalization and award of letter of acceptance.

The Part – I cover only will be opened at 3.30 PM on 27/11/2015 in presence of Bidders or their Authorized Representatives who shall be in a position to clarify all the conditions stipulated by them. The Director, LBS Centre for Science and Technology with the advice of the Technical committee constituted for this purpose will thereafter decide which of the conditions, if any, have to be accepted uniformly for all the Tenders and this will be intimated in writing to the Bidders.

The Bidders on receipt of the above letter from the Director, LBS Centre, can be lieu quote a percentage above or below their tendered amount already submitted in a separate sealed cover within the stipulated date superscribed as PART III.

The sealed cover Part II containing Priced Tender Documents already submitted will be opened along with the Part III cover on stipulated date and time in the presence of all the bidders who may be present at that time.

If the date proposed for opening of the tenders happen to be declared as a holiday, the tender will be opened on the next working day at the same time and place.

Please note that this tender notice will form part of the contract document and that the contents of this tender notice shall be supplemental to the conditions in the tender and not in derogation thereof except to the extent specifically provided herein.

Director  
LBS Centre for Science and Technology

**LBS CENTRE FOR SCIENCE AND TECHNOLOGY  
PALAYAM, THIRUVANANTHAPURAM**

**LETTER OF ISSUANCE OF TENDER DOCUMENT**

Name of work : Supply, Installation, Testing and Commissioning of Passenger Lift at Centre for Disability Studies, LBSITW Campus, Poojappura, Thiruvananthapuram.

This set of tender document is issued to: -----  
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The fee for the original tender document is Rs3,000/- + KVAT @ 5% and fee for the duplicate copy of the tender without drawings is Rs 1500/- + KVAT @ 5 %

The tender document is issued on ..... vide receipt no ..... Dated .....

**THIS TENDER DOCUMENT IS NOT TRANSFERABLE**

Issued by

## CHAPTER-II -GENERAL INSTRUCTION TO BIDDERS

1. Sealed Tenders in separate covers marked I & II as per notice inviting tender should be addressed to the Director LBS Centre for Science and Technology, Palayam, Thiruvananthapuram- 685 003 and superscribed "Tender for Supply, Installation, Testing and Commissioning of Passenger Lift" and sent so as to reach him not later than 3.00 PM on 27/11/2015. Tenders should clearly indicate on each copy of the tender under their full signature whether it is the original or duplicate copy.
2. Tenders received after 3.00 PM on 27/11/2015 will not be considered under any circumstances whatsoever.
3. (a) The cover – I (Technical Bid) of Bid will be opened at 3.30 PM on 27/11/2015 by the Director LBS Centre for Science and Technology, Thiruvananthapuram or any other officers designated for this purpose by him in the presence of the BIDDER or their representatives, should they choose to be present.

The Cover II of the tender will be opened as specified in notice inviting tender

(b) Tenders shall remain open to acceptance by the Director LBS Centre for Science and Technology, for a period of 90 days from the date of opening the PART – I of the tender which period may be extended by mutual agreement and the bidder shall not cancel or withdraw the tender during this period.

(c) The bidder must use only forms issued by the Centre to fill in the rates.

- 4 (a) The tender form must be filled in ENGLISH and all entries must be made by hand and written in INK. If any of the documents is missing or unsigned, the tender may be considered invalid the Director, LBS Centre for Science and Technology at his discretion.

(b) Rates should be quoted both in figures and words in columns specified. All erasures and alterations made while filling the tender must be attested by initials of the bidder. Overwriting of figures is not permitted and failure to comply with either of these conditions will render the tender void at the Director, LBS Centre's option. No advice of any change in rate or conditions after the opening of the tender will be entertained.

(c) Each of the tender documents should be signed by the person or persons submitting the tender in token of his/their having acquainted himself/themselves with General Instructions to Bidders, Special Conditions of Contract, General Conditions of Contract, Technical Specification, Special Conditions and bill of Quantities etc. as laid down. Any tender with any of the documents not signed will be rejected.

(d) The tender submitted on behalf of a firm shall be signed by all the partners of the firm or by a partner who has the necessary authority on behalf of the firm to enter into the proposed contract. Otherwise the tender may be rejected by Director, LBS Centre for Science and Technology.
5. The Director, LBS Centre for Science and Technology, does not bind himself to accept, the lowest or any tender and reserves to himself the right to accept or reject any or all the tenders, either in whole or in part, without assigning any reasons for doing so.

6. (a) Intending bidders shall pay as Earnest Money Deposit a sum of RS 15,000/- as cash or crossed Bank Drafts or Treasury Savings Bank Deposits or Government Promissory Notes or Bank Guarantee or National Savings Certificate payable to the Director, LBS Centre, LBS Centre for Science and Technology, Thiruvananthapuram. Earnest Money Deposit may be directly enclosed in a separate cover and submitted along with envelop 1. A tender that is not accompanied by such a Demand Draft as Earnest Money deposit will not be considered.

(b) The Earnest Money deposit of the unsuccessful bidders will be refunded immediately after tabulation of the first three lowest bidders. The EMD of the remaining unsuccessful bidders will also be refunded within two weeks from the date of acceptance of the tender and execution of the agreement by the successful bidder.

7. The Earnest Money Deposit of Rs 15,000/- paid by the successful Bidder when he/they submit his/their tender shall be held by the Director, LBS Centre, as part security for the execution and due fulfillment of Contract. No interest shall be paid for the said deposit.
8. On receipt of intimation from the Director LBS Centre for Science and Technology of the acceptance of his/their tender, the success bidder shall within fifteen days sign an Agreement in accordance with the Draft Agreement after furnishing security deposit. The successful bidder will deposit an amount equal to 5% of the awarded contract value as security deposit. At least 50% of the performance guarantee will be in the form of Treasury fixed deposit and the rest in the form of Demand Draft from Nationalised Bank payable at **Thiruvananthapuram** to the **Director, LBS Centre for Science & Technology** or in the form of **Bank guarantee from any nationalized or scheduled bank**. Failure in carry out these obligations will give the right to reject the tender and to forfeit the EMD. But the written acceptance by the Director, LBS Centre for Science and Technology of a tender will constitute a binding contract between the Director LBS Centre for Science and Technology and the person so tendering, whether such formal agreement is or is not subsequently executed. The Security Deposit so made will be refunded on issue of Virtual Completion Certificate by the consultant.

#### 9. RETENTION AMOUNT

- (a) Retention Money at the rate of 10% of the value of the work done for each running bill will be deducted from the first and following bills until such time as the cumulative total of such deduction (herein referred as the Retention Money) shall amount to 2.5% of the contract price mentioned in letter of acceptance. One half of the retention money shall be certified due for payment to the bidder after issue of certificate of virtual completion of work and the balance of the retention money shall be certified on the expiration of the defect liability period of 24 months provided always that if at such time there shall remain to be executed by the bidder any works ordered during such period pursuant to clause 18 of special condition of contract. The Director LBS Centre for Science and Technology shall be entitled to withhold the payment until the completion of such work of so much of the balance of amount representing the cost of the work so remaining to be executed.
- (b) When the cumulative amount of retention money reached 2.5% of the contract value, if the bidder so request, Director, LBS Centre for Science and Technology will pay 50% such cumulative amount of retention money to the bidder upon lodgment of a bank guaranty issued by a nationalised bank for a like amount. This bank guaranty has to be valid up to the end of defect liability period.
- (c) The Bank Guarantee shall be released only after the defect liability period two years from the date of virtual completion.
- (d) All the deposit of EMD, SECURITY DEPOSIT AND RETENTION MONEY will not bear interest whatsoever.
10. (a) All Statutory payments in connection with the employment of the workmen for this work will borne by the bidder.
- (b) In addition to the retention money, Income Tax at prevailing rate, purchase tax as per KVAT current at the time of each bill and labour welfare fund as per rules will be deducted from the Bidder's bill and remitted to the respective departments and necessary



Certificates issued to the Bidders. The gross bill value will be considered for deducting the Income tax & Purchase tax.

(c) All compensation or other sums of money payable by the Bidder to the Director LBS Centre for Science and Technology under the terms of this Contract may be deducted from the Performance Guarantee Fund (Security Deposit plus Retention amount) if the amount so permits and the Bidder shall, unless such deposit has become otherwise payable within ten days after such deduction make good in cash the amount so deducted.

11. The Bidder shall not assign the Contract. He shall not sublet any portion of the Contract except with the written consent of the Director, LBS Centre for Science and Technology. In case of breach of these conditions, the Director, LBS Centre for Science and Technology may serve a notice in writing to the Bidder rescinding the contract whereupon the Performance Guarantee Fund shall stand forfeited to the Director, LBS Centre for Science and Technology without prejudice to his other remedies against the Bidder.
12. The bidder shall carry out all the work strictly in accordance with drawings details and instructions. If in the opinion of the Centre's consultant, changes have to be made in the design, the bidder shall carry out the same without any extra charge. The Director, LBS Centre's decision in such cases shall be final and shall not be open to arbitration.
13. The bill of quantities in respect of each work is appended in PART - II
14. The Bidder must obtain for himself on his own responsibility and at his own expenses all the information which may be necessary for the purpose of making a tender and for entering into a contract and must examine the drawings, and must inspect the site of the work and acquaint himself with all local conditions, means to access to the work, nature of the work and all matters appertaining thereto.
15. The rate quoted in tender shall include all charges for clearing of site before commencement as well as after completion of all works. The rates shall also be firm and shall not be subject to exchange variations, labour conditions, fluctuations in freights or any conditions whatsoever. Tenders must include in their rates sales tax, excise duty, octroi, sales tax on works contract and any other tax and duty or other levy impose by authorities, if applicable. No claim in respect of sales tax, excise duty, octroi, or other tax, duty or levy whether existing or future shall be entertained by the Director , LBS Centre for Science and Technology
16. The Bidder shall strictly observe time allowed for the completion of the works that is Six months from the date of issue of acceptance letter/ selection notice
17. The work shall throughout the stipulated period of the contract be proceeded with all due diligence and if the Bidder fails to complete the work within the specified period the contract will be terminated and balance works arranged at the Bidder's risk and cost. The bidder shall before commencing work prepare a detailed work program, which shall be approved by the Director, LBS Centre for Science and Technology.
18. The Bidder shall not be entitled to any compensation for any loss suffered by on account of delays in commencing or executing the work, whatever the cause of delays may be including delays arising out of modifications to the work entrusted to him or in any sub contract connected therewith or delays in awarding contracts for other trades of the project. Commencement or incompletion of such works or in procuring government approval or for other reason what so ever and the Director, LBS Centre for Science and Technology shall not be liable for any claim in respect there off. The Director, LBS Centre does not accept liability for any sum besides the tender amount subject to such variations as are provided for herein.
19. The successful tender is bound to carry out any items of work necessary for the completion of the job even though such items are not included in the quantities and rates. Schedule of instructions in respect of such additional items and their quantities will be issued in writing by the Director, LBS Centre for Science and Technology.

20. The successful bidder must co-operate with the other bidders/contractors appointed by the Director, LBS Centre for Science and Technology so that the work shall proceed smoothly with the least possible delay and to the satisfaction of the Director, LBS Centre.
21. The bidder must bear in mind that all the work shall be carried out strictly in accordance with the specifications made by the Director, LBS Centre for Science and Technology and also in compliance requirement of the local public authorities including Kerala Electrical Inspectorate & Kerala State Electricity Board and to the requirements of the Bill of Quantities and no deviation on account will be permitted.
22. (a) The Bidder should make his own arrangement to obtain all materials required for the work.  
  
(b) The Bidder shall pay and bear the cost of loading and unloading the materials as required and transporting the same to the site as well storage and all other charges and expenses whatsoever required for the completion of the items of work.
23. The bidder shall have to use materials of the makes/manufactures specified in list of materials of approved brand, make and or manufacture containing in this tender.
24. a. The rate quoted by the Bidder shall include expenditure for providing all materials required for the work and the Bidder shall make his own arrangements for the supply of good quality materials, including obtaining necessary sanctions for the construction purpose and all charges shall be borne by him.  
  
b. The rate quoted in the tender shall also include electric consumption charges for power. If no power is available at the site, the bidder shall have to make his own arrangements to obtain power connection and maintain at his own expense an efficient service of electric light and power and shall pay for the electricity consumed. The Director, LBS Centre, , LBS Centre for Science and Technology shall give all possible assistance to the bidder in this regard.
25. The bidder has to make his own arrangements for electricity and water during construction. However these shall be supplied to the extent possible from the existing systems of the Centre on payment basis.
26. The bidder shall strictly comply with the provision of safety codes annexed here to.
27. IS code numbers wherever mentioned in the tender shall be the lasted version of IS codes as on date of opening the tenders.
28. The bidder shall be required to submit the PERT/CPM chart for the various activities involved in this work including dependencies etc. and regularly monitor the progress of work accordingly.
29. The security deposit of the successful bidder will be forfeited if he fails to comply with any of the conditions of the Contract.
30. **BIDDER TO INFORM HIMSELF FULLY**
  - (a) The Bidder shall be deemed to have carefully examined the work and site conditions including labour, the general and special conditions, the Technical specifications and schedule and shall be deemed to have visited the site of work to have fully informed himself regarding the local conditions and carried out his own investigation to arrive at the rates quoted in the tender. In this regard, he will be given necessary information available with the Director LBS Centre for Science and Technology but without any guarantee about its accuracy.

- (b) If the Bidder shall have any doubts as to the meaning of any portion of the general conditions, or the special conditions or the scope of work or the specifications and drawings or any other matter concerning the contract he shall in good time, before submitting his tender, put forth, the particulars thereof and submit them to the Director LBS Centre for Science and Technology, Thiruvananthapuram in writing in order that such doubts may be clarified authoritatively in writing before tendering. Once a tender is submitted the matter will be decided according to tender conditions in the absence of such authentic pre-clarification.

31. ERRORS, OMISSIONS & DISCREPANCIES:

- a) In case of errors, omissions and /or disagreement between written and scaled dimension on the drawings or between the drawings and specifications etc. the following order of preference shall apply.
- i. Between actual scaled and written dimensions (or description) on a drawing the latter shall be adopted.
  - ii. Between the written or shown description or dimensions in the drawings and the corresponding one in the specification the latter shall be taken as correct
  - iii. Between the written description of the item in the specifications and the detailed description in the bill of quantities of the same item the latter shall be adopted
- b) In case of difference between the rates written in figures and words, the rate adopted for working out the total amount of the item in the original tender form shall be taken as correct. In all other cases the correct rate would be that which is lower.
- c) Between the duplicate/subsequent copies of the tender and original tender, original tender shall be taken as correct
- d) In all cases of omission and /or doubts or discrepancies in any item or specification a reference shall be made to the Director, LBS Centre's consultant whose elucidation, elaboration or decision shall be considered as authentic. The bidder shall be held responsible for any errors that may occur in the work through lack of such

I/We hereby declare that I/We have read and understood the above instruction for guidance of bidders.

Witness:

Signature of Bidder

Address

Date:

### CHAPTER III-SPECIAL CONDITIONS OF CONTRACT

01. The Guarantee period for the Supply, Erection, Testing and Commissioning of Passenger Lift at Centre For Disability Studies, LBSITW Campus, Poojappura, Thiruvananthapuram shall be two year and the bidder will have to give a confirmation in writing that the lift will function properly for another five years after commissioning.
02. The bidder will also quote separately their AMC (all comprehensive) rate for 3 years after guarantee period of two year in a separate cover and submit the same along with their price document i.e. Part II. The AMC charge for three years will be added to quoted rate for supply erection, testing and commissioning of passenger lift for finalization of the tender. The bidder should execute a separate agreement on stamp paper regarding AMC on receipt of work order/conformation letter.
03. AMC charge will be paid in two installments, every year, ie. after the successful completion of 6<sup>th</sup> and 12<sup>th</sup> months.
04. The penalty conditions, in case of breach of conditions in AMC are as follows.
  - a. For Minor Faults:

If the defect is not attended and rectified within one hour on intimation of the fault penalty at the rate of 0.05% of AMC charge per hour will be charged. If the fault is not rectified within 6 hours, fine at the rate 10% of AMC charge will be deducted for every 6 hours.
  - b. For Medium Faults:

If the defect is not attended and rectified within 24 hours on intimation of the fault, penalty at the rate of 1% of AMC charge per hour will be charged. If the fault is not rectified within 48 hours penalty at the rate of 15% of AMC charge will be deducted for every 24 hours.
  - c. For Major Faults  

If the defect is not attended and rectified within 48 hours on intimation of the fault, penalty at the rate of 2% of AMC charge per hour will be charged. If the fault is not rectified within 3 days, penalty at the rate of 20% AMC charge will be deducted for every 24 hours.
  - d. Lower limit of the fine will be 0.05% of AMC charge and upper limit is 50% of AMC charge
  - e. The bidder shall also submit in writing the details regarding categorization in general about minor, medium and major break downs along with their offer for AMC.
05. The tender should include all the safety features as per Indian standards and Electrical Inspectorate requirements.
06. Dimensions and other measures, measurements given in these documents and drawings should be deemed as more or less correct only.
07. The successful bidder should in the first instance ,depute a competent man to study the drawings and details at site, take accurate measures of all details and other requirements, prepare drawings and get these approved by the Architect before commencing the work. If any co-ordination with other agency are required for information or otherwise, this person should request for such, in writing and get them clarified before finalizing the drawings.

- a. The entire installation shall conform to the requirements of the Lift Inspector/Electrical inspector/Local fire authorities and it is the sole responsibility of the Lift supplier to get approval for the Layouts and equipments and license for the operation of the Lift.
  - b. The details mentioned above are indicative and the bidder has to include all standard features and safety devices in the scope of supply. All such details shall be clearly enumerated in their Tender.
  - c. All materials and services shall satisfy ISI specification, samples of these must be furnished and got approved by the Director, LBS Centre for Science and Technology.
  - d. No compensation for damage or replacement or other supplied incorrectly fabricated shall be entertained on any account.
  - e. All scaffolding supports, hoist beams etc, directly or indirectly for the work should be provided. The Director, LBS Centre for Science and Technology should not be called upon to provide any facilities or materials other than those specifically to be agreed upon in the agreement. Responsibility for adequate electrical system for compliance with the local electrical inspectorate standards preparing electrical drawings applying to get these approved by the inspectorate ,making in additions or alterations in the electrical system for such compliance without extra charge are also deemed to be covered. No separate payments for any of these shall be made.
08. Lump sum items will be paid for only as per actual based on detailed measurements when they are measurable or on details of labour and materials limiting to the lump sum quoted by the bidder or the lump sum provide in sanctioned estimate whichever amount is lower
  09. All items not included in the tender and the agreement schedule will be classified as extra items only
  10. The bidder shall be bound to carry out all extra items not provided for in the schedule but found necessary during actual execution of work for proper completion of the Project
  11. Item of work not expressly or impliedly described in the bill of quantities or specification will be treated as “extras”. They will include only items of works which though highly necessary for proper execution for the work and for its completion were not provided for in the original contract.
  12. The execution of extra item of work and payment therefore will be based on the following conditions .there shall be an order in writing to execute the extra item of work duly signed by the Director, LBS Centre for Science and Technology
  13. The rates for extra shall be worked based on clause specified of the General condition hereinafter referred to.
    1. Deduction of sales tax or income tax payable by the bidder will be effected from the bills of the bidder if so required by the respective departments
  15. On no account final payment will be made before production of clearance certificate of S.T or Income Tax.
  16. All sums found due to Government from the bidder or by virtue of this agreement shall be recovered from the bidder if so required by the respective departments.
  17. When the rate quoted in figures and words disagree the rate taken for the purpose of the settlement of the contract shall be as specified in Clause 31 GIC and the bidder is bound to accept the rates if awarded to him.

18. The full retention amount will not be released before the expiry of 24 months on completion of works including electrification and after the issue of certificate regarding completion of work or till final bill has been prepared and passed whichever is later, till then the responsibility of the work rests with the bidder.
19. Light fixtures, cable trunking systems and all major items to be purchased by the bidders for use on the work, will be permitted to be used only after they are verified and their quality checked with reference to invoices etc.
20. The wiring materials & cables of required sizes shall be brought to the site of the work. The responsibility of maintaining stocks and providing security for the stocks shall remain with the bidder.
21. All items should be carried out as per the relevant specification and all the Clauses of preliminary specifications should be complied with.
22. The Bidder alone is responsible for the safety of his labourers and damages, if any, payable under workmen's Compensation Act will be to his debit.
23. The work shall be completed in all respects and also at the rate of progress within the time limit and stipulations in the notice inviting tenders failing which the bidder is liable to be fined and stipulated in special condition of contract.
24. Defects, if any noticed within 24 months from the date of completion of the work will be rectified by the bidder in default of which this will be attended by the Director, LBS Centre and the cost made good from the bidder.
25. The bidder agrees that before final payment shall be made on the contract he will sign and deliver to the agreement as demanded a valid realization and discharge from any and all claims and demands whatsoever for the matters arising out of connected with the contract provided that nothing in this clause shall discharge or release this bidder from his liabilities under the contract. It is further expressly agreed that the Director, LBS Centre, LBS Centre, on supply the virtual completion certificate need not be bound by the preceding claims and payments. The final assessment if any, of the Director, LBS Centre, shall be final conclusive and binding on the contract.
26. The Tender Notice shall form part of the agreement.
27. The date fixed by the Director, LBS Centre, LBS Centre, for the commencement and completion of work as entered the Agreement shall be strictly observed by the bidder. However if due to unforeseen delay in design or construction the rate of progress as agreed by the bidder could not be maintained the bidder may apply in writing for modification the rate of progress indicating the reasons therefore. The Director, LBS Centre may accept the modification in rate of progress within the limit of extension of time as per clause (a) below.

**Extension of time of completion of work and fine:**

The time period fixed by the Director, LBS Centre for the completion of work as entered the Agreement shall be strictly observed by the Bidder. However if due to unforeseen delay in design or construction the rate of progress as agreed by the bidder could not be maintained the bidder may apply in writing for modification of rate of progress indicating the reasons therefore. The Director, LBS Centre may accept the modification in rate of progress within the limit of extension of time as per clause (a) below

- a) To take care of any departmental delays or delay occurring due to unexpected technical problem faced during execution of a work, a grace period of 20% of the original time of completion will be allowed, if found necessary, to complete the work. The officer recommending to grant grace period will record in detail the reasons for allowing the

extension. The grace period will not be granted if the extension is necessitated due to default on the part of the bidder.

b) For extension of time completion beyond the grace period, fine will be imposed at the following rates.

Period of Extension	Rate of fine
First three months	1% of the contract value subject to a minimum of Rs. 1000/- and maximum of Rs. 50,000/-
For every three months beyond the first three months	2% of the contract value subject to a minimum of Rs. 2000/- and maximum of Rs. 1,00,000/-

For extension of time of completion for part of the said period, proportionate amount of fine will be levied.

28. The Bidder has to engage and nominate experienced and skilled persons for the work

29. The method of measurements will be as per Indian Standard

30. All sums found due to the Director, LBS Centre, under or by virtue of these presents shall be recoverable first from the security furnished by the Bidder under the provisions of the Revenue Recovery Act for the time being in force as through these were arrears of land revenue or in any other manner as the deem fit.

31. The rates quoted by the Bidder shall be inclusive of Works contract Tax, Purchase Tax, Sales Tax, Labour Welfare Fund etc. to be paid to the Departments.

32. Intending Bidders are expected to inspect the site before tendering and ascertain exact nature of the work to be done. No plea for extra rates of any kind over and above the rates quoted by them will be considered.

33. All light fixtures and other major items obtained by the bidder at his own cost must be got approved by the before using on the work.

#### 34. SAFETY CODE

1. First aid appliances including adequate supply of sterilized dressings and cotton wool shall kept in a readily accessible place.
2. An injured person shall be taken to a public hospital without loss of time, in cases where the injury necessitates hospitalization.
3. Suitable and strong scaffolds should be provided for workmen for all works that cannot safety done from ground.
4. No portable single ladder shall be over 8 meters in length. The width between the side rails shall not be less than 30 cm. (clear) and the distance between two adjacent rungs shall not be more than 30 cm. when a ladder is used an extra mazdoor shall be engaged for holding the ladder.
5. Every opening in the floor of a building or in a working platform is provided with suitable means to prevent the fall of persons or materials by providing suitable fencing or railing with minimum height of one meter.
6. No floor, roof or other part of the structure shall be so overloaded with materials as to render it unsafe.
7. Those engaged in welding works shall be provided with welder's protective eye – shields and gloves.
8. (i) No paint containing lead or lead products shall be used except in the form of paste or readymade paint.  
(ii) Suitable face mask should be supplied for use by the workers when the paint is so applied in the form of spray or surface having lead paint dry rubbed and scrapped.

9. Overall shall be supplied by the Bidder to the painters and adequate facility shall be provided to enable the working painters to wash during the periods of cessation of works
10. Hoisting machines and tackle used in the works, including their attachments, anchorage and support shall be in perfect condition.
11. The ropes used in hoisting or lowering material or as a means of suspension shall be of durable quality and adequate strength and free from defects.

### **35. LABOUR LAWS**

The contract shall comply with provisions of all Labour Legislation including the requirements of:

- a) Payment of Wages Act
- b) Director's Liability Act
- c) Workman's Compensation Act
- d) Contract Labour (Regulation and Abolition) Act 1970 & Central Rules 1971.
- e) Apprentice Act, 1961
- f) Any other Act or enactment relating to employment of labour and rules framed there under from time to time.

The bidder shall keep the saved harmless and indemnified against claims, if any, of his work men and all costs and expenses as may be incurred by the Director LBS Centre in connection with any claim that may be made by any workmen.

The bidder shall have to obtain License under the said Act and rules and comply with all provisions and obligations. The Bidder shall furnish all information required by the Director, LBS Centre and also indemnify the Director, LBS Centre, against any penalties/claims arising from any default on his part.

### **36. FAIR WAGE CLAUSE**

- a) The Bidder shall pay not less than fair wage to labourers engaged by him on the work. "fair wages" means wages whether for time or piece work notified at the time of inviting tenders for the work and where such wages have not been so notified the wage prescribed by Kerala PWD for the district in which the work is done.
- b) The contract shall notwithstanding provisions of any contract to the contrary cost to be paid fair wage to labourers indirectly engaged on the work including any labour engaged by his sub bidder in connection with self work as if labourers had been immediately employed by him.
- c) In respect of all labour directly or indirectly employed in the work for performance of the bidder's part of the Agreement the Bidders shall comply with or cause to complied with provisions of the Contract Labour(Regulations and Abolition) Act 1970,Minimum Wages Act 1948, Payment of Wages Act 1936 and any amendments thereof and all Legislations and Rules of this State and/or Central Govt. or other Local Authority Framed by time to time , governing the protection of Health, Sanitary arrangements , Wages, Welfare, Safety Bonus, Retirement Benefits, Retrenchment/ Lay off compensations to payment of wages not paid and deductions from wages recovery of wages not paid and deduction unauthorized made maintenance of wage register other terms of employment inspection and submission periodical return and all wage cards, publications of scale of wages and returns and all other matters of like nature and shall indemnify the Director, LBS Centre, from all or any claims coming under the above Acts and Rules.
- d) The Director, LBS Centre, shall have the right to deduct from the money due to the Bidder and any sum enquired or estimated to be required for making good the loss suffered by a worker or workers by reason of non-fulfillment of the conditions of the contract for the benefit of the works no payment of wages or deduction made from his or their wages which are not justified by the terms of the Bidder on non-observance of the regulations.
- e) The regulation aforesaid shall be deemed to be a part to this contract



## CHAPTER –IV-GENERAL CONDITIONS OF CONTRACT

### 1. Definitions:

In constructing these conditions, the Specifications, Terms bill of quantities and Contract Agreement the following words shall have the meanings herein assigned to them except where the subject or context otherwise requires.

- (a) **Director** shall mean the Director LBS Centre for Science and Technology, Palayam, Thiruvananthapuram shall include its assigns and successors.
- (a1) **Consultant** shall mean the Engineering Consultant appointed by the Director, LBS Centre
- (a2) **Engineer** shall mean the Engineer authorized person appointed by the Director and acting on and behalf of the Director, LBS Centre
- (b) **Bidder** shall mean
  - (b1) In the case of a **Partnership firm** the “bidder” shall mean ..... and trading as partners in the name and style of ..... and having a place of business at ..... and shall include the partners for the time being of the said and the legal representatives of a deceased partner.
  - (b2) In the case of **Individual**: the “bidder” shall mean Shri ..... trading in the name and style of ..... and shall include his heirs, and legal representatives.
  - (b3) In the case of Company ”Bidder” shall mean ..... a company incorporated under 19 and having its registered office at ..... and shall include its successors and assigns.
- (c) **“Site”** shall mean the site of the Contract works including the building and erections thereon allotted by the Director, LBS Centre for the Bidder’s use.
- (d) **“This Contract”** shall mean the Articles of Agreement, General Instructions to Bidders, Special Conditions of Contract, General Conditions of Contract, Technical Specification, Special Conditions and bill of Quantities attached hereto and duly signed.
- (e) **“Notice in writing or written notice or notice”** shall mean printed characters sent (unless delivered personally or otherwise proved to have been received) by registered post to the last known private or business address or registered office of the addressee and shall be deemed to have been received when in the ordinary course of post it would have been delivered.
- (f) **“Act of Insolvency”** shall mean any Act of Insolvency as defined by the Presidency Towns insolvency act, or the Provisional Insolvency Act or ant Act amending such original
- (g) **“Contract value”** is the agreed price arrived on the basis of the price quoted in Price Bid Document PART II , price quoted in Price Bid Document PART III and price arrived thereon after mutual discussions and negotiation which is also all inclusive of Transportation charges , loading and unloading charges , sales tax, excise duty, octroi, sales tax or works contract tax, labour welfare fund and any other tax and duty or levy existing or impose in future and shall also be firm and shall not be subject to exchange variations , labour conditions , fluctuations in freight charges or any condition whatsoever.

- (h) **“Works”** shall mean Supply, Installation, Testing and Commissioning of Passenger Lift for Centre for Disability Studies, LBSITW Campus, Poojappura, Thiruvananthapuram

“Words importing persons” include firms and corporations. Words importing the singular only also include the plural and vice versa where the context requires.

## **2. Scope of Work**

The Bidder shall carry out and complete the said contract in every respect in accordance with this contract and with the directions of and to the satisfaction of the Director, LBS Centre. The Director, LBS Centre, may in his absolute discretion and from time to time issue of further drawings and/or written instructions, details, directions and explanations which are hereafter collectively referred to as “Instructions” in regard to.

- (a) The variation or modification of the design, quality or quantity of works or the addition, omission or substitution of any work
- (b) Any discrepancies in the drawing or between the Bill of Quantities and/or Drawings and / or specification.
- (c) The removal from the site of any material brought thereon by the Bidder and the substitution of any other materials therefore.
- (d) The removal and/or re-execution of any works executed by the Bidder.
- (e) The dismissal from the works of any persons employed thereupon.
- (f) The opening up for inspection of any work covered up.
- (g) The amending and making good of any defects under clause specified hereof.

The Bidder shall forthwith comply with and duly execute any work comprised such instructions provided always that verbal instructions, directions and explanations given to the Bidder or his representative upon the works by the Director LBS Centre shall, if involving a variation, be confirmed in writing within a further seven days by the Director LBS Centre such shall be deemed to be instructions within the scope of the Contract.

## **3. Bidder:**

The Bidder shall provide at his cost everything necessary for the proper execution of the works according to intent and meaning of the Drawings. Bill of Quantities & necessary specification taken together with whether the same may or may at his cost not be particularly shown or described therein provided that the same can reasonably inferred there from and if the Bidder finds any discrepancy in the drawings or between the drawings, Bill of Quantities and specifications, he shall immediately and in writing refer same to the Director LBS Centre who shall decide which is to be followed.

## **4. Authorities:**

The bidder shall confirm to the provisions of any Act of the Legislature relating to works, and to the patents regulations and bye-laws of any authority, and of any water, electric supply and other companies and/or authorities with whose systems the structure is proposed to be connected , and shall, before making any variations from the drawings or specifications that may necessitated by so conforming, give to the Director, LBS Centre, LBS Centre, written notice, specifying the variation proposed o be made and the reason for making it and apply for instructions thereon. In case the bidder shall not within 10 days receive such instruction he shall proceed with the work conforming to the provision regulations ,or bye-laws in question, and any variations so necessitated shall be dealt with under clause specified thereof.

The bidder shall bring to the attention of the Director, LBS Centre all notices required by the said Acts, Regulations or Bye laws to be given to any authority and pay to such authority or to any public office of all fees that may be properly chargeable in respect of the works and lodge the receipts with the Director, LBS Centre, LBS Centre.

The bidder shall indemnify the Director LBS Centre against all claims in respect of patent rights , and shall defend all actions arising from such claims, and shall himself pay all royalties ,license fees, damages , cost and charge of all and every sort that may be legally incurred in respect thereof.

## **5. Installation**

The bidder shall install the passenger lift and shall be responsible for the correct and perfect installation of the same and for the correctness of the positions, levels, dimensions etc., during the progress of the works or within the defect liability period, the bidder shall, if so required, at his own expense rectify such error to the satisfaction of Director, LBS Centre.

## **6. Materials & Workmanship:**

All materials and workmanship shall be accordance with the Director, LBS Centre's specification, and the Bidder shall upon the request of the Bidder should furnish him with all invoices, account, receipts and other vouchers and test reports to prove that the materials, equipments, and protective and control devices comply therewith. The Bidder shall at his own cost arrange for and/or carry out test of any materials which the may require.

## **7. Bidders & Superintendence:**

The Bidder shall give all necessary personal superintendence during the execution of the works, and as long thereafter the Director LBS Centre may consider necessary until the expiry of the "Defects Liability Period". The Bidder shall also during the whole time the works are in progress employ a competent qualified and experienced Engineer who shall be constantly in attendance at the works while the men are at work. Any directions, explanations, instructions or notices given to such representative shall be held to be given to the Bidder.

## **8. Dismissal:**

The Bidder shall on the request of the Director LBS Centre immediately dismiss from the work any person employed thereon by him who may, in the opinion of the Director, LBS Centre, be incompetent or misconduct himself and such persons shall not be again employed on the works without permission of the Director, LBS Centre, LBS Centre.

## **9. Access to representatives:**

The Director, LBS Centre and his representative(s) shall at all reasonable times have free access to the work and/or to the workshops, factories or other places where materials are lying or from which they are being obtained and the Bidder shall give every facility to the Director LBS Centre and his representative(s) necessary for inspections and examination and test the materials and workmanship. No person not authorized by the Director, LBS Centre except the representatives of public authorities shall be allowed on the works at any time.

## **10. Assignment & Contract:**

The whole of the works included in the contract shall be executed by the Bidder and the Bidder shall not directly or indirectly transfer, assign or under-let the contract or any part/ share thereof or any interest therein without the prior written consent of the Director, LBS Centre and no undertaking shall relieve the Bidder from active superintendence of the works during the progress.

## **11. Alterations, additions, etc:**

No alteration, omission or variation shall vitiate this contract, but in case the Director, LBS Centre, thinks proper at any time omissions during the progress of the works to make any alterations in, or additions to, or omissions from the works or any alterations in the kind of quality of the materials to be used therein and shall give notice thereof in writing under his hand to the Bidder. The Bidder shall alter, add to, or omit from, as the case may be in accordance with such notice, but the Bidder shall not do any work extra to or make any alterations or additions to or omissions from the works or any deviation from any of the provisions of the contract, stipulating specification or contract drawings without the previous consent in writing of the Director, LBS Centre and the value of such extras, alterations, additions, or omissions shall in all cases be determined by the Consultant with the prior approval in writing of the Director, LBS Centre in accordance with the provisions of the contract, and the same shall be added to or deducted from the Contract Amount, as the case may be.

## **12. Bill of Quantities:**

The Bill of Quantities unless started otherwise Quantities shall be deemed to have been prepared in accordance with the standard Method of assessment. Any error in description of in quantity or in omission of items from the Bill of Quantities shall not vitiate this contract but shall be rectified and the value thereof, as ascertained under Clause specified hereof, shall be added to or deducted, from the rectification of errors, if any, shall be allowed in the Bidder's Schedule of Rates.

## **13. Sufficiency of Bill of quantities:**

The Bidder shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of Bill of Quantities, and prices quoted shall cover all his obligations under the Contract, and all materials, equipments and other things necessary for the proper completion of the works.

## **14. Evaluation of execution of Work:**

The Director, LBS Centre may from time to time intimate to the Bidder that he requires the works to be evaluated, and the Bidder shall forthwith attend or send a qualified agent to assist his Engineer in taking such assessments and he shall furnish all particulars or to give all assistance required by any of them.

Should the Bidder not attend or neglect or omit to send such Agent then the assessment taken by the Consultant shall be taken in accordance with the specifications.

The Bidder or his agent may at the time of evaluation take such notes and recommendations. All authorized extra works, omissions and all variations made without the Director, LBS Centre's knowledge, but subsequently sanctioned by him in writing shall be included such evaluation.

## **15. Prices for extra etc.**

The tenderers are directed to conduct a through study before quoting their offers. No other extra work will be allowed during execution.

The Bidder may, when authorized, and shall, when directed, in writing by the Director, LBS Centre, to add or to omit from or vary the works shown upon the drawings, or described in the specification, or included in the Bill of quantities and technical specification, but the Bidder shall make no addition, omission, or variation without such authorization or direction. A verbal authority or direction, if confirmed by writing within seven days is deemed to have been given in writing.

No claim for an extra item shall be allowed unless it shall have been executed under provisions of clause specified of special conditions or by the authority of the Director, LBS Centre, LBS Centre,

as herein mentioned. Any such extra is herein referred to as authorized extra and shall be made in accordance with the following provisions.

- a) In the case of all extra items whether additional, altered or substituted, if accepted rates for identical items are provided for in the contract, such rates shall be applicable
- b) In the case of all extra items whether additional, altered or substituted, for which allied items exist in the contract, the rates shall be derived from such items by appropriate adjustment of cost of affected component taking into account the schedule of rates current at the time of ordering such extra item.
- c) In the case of all extra items whether additional, altered or substituted, for which allied items do not exist in the contract, and rates exist in the schedule of rates, the rates shall be arrived at on the basis of the departmental schedule of rates current at the time of ordering the extra item. The tender deductions as the case may be of the main contract shall be applied to the rates so arrived at excluding the value of departmental materials and higher charges of departmental T&P, if any used for the concerned items. Tender excess if any will not be applied.
- d) In the case of all extra items whether additional, altered or substituted, for which the rates cannot be derived either from allied items in the contract or from the departmental schedule of rates, the rates for such part or parts of items as are not covered in the schedule of rates shall be determined by the Accepting Authority on the basis of the prevailing market rates giving due consideration to the analysis of rates furnished by the bidder with supporting documents and including the bidders profit. Whenever market rate is allowed for any item of work or part thereof under this sub-clause no tender variation shall be allowed for particular item or part thereof as the case may be.

#### **16. Unfixed materials when taken into account to the property of the Director, LBS Centre:**

Where in any certificate (of which bidder has received payment), the Director, , LBS Centre, has included the value of any unfixed materials intended for and/or placed on or adjacent to the works such materials shall become the property of the centre and they shall not be removed except for use upon the works, without the written authority of the the Director, LBS Centre. The bidder shall be liable for any loss of, or damage to, such materials.

#### **17. Removal of improper work:**

The Director, LBS Centre, shall, during the progress of the work, power to order in writing from time to time the removal from the works, within such reasonable time to times as may be specified in the order, any devices which in the opinion of the Consultant are not in accordance with the specifications or the instructions, the substitution of proper devices and the removal and proper re-execution of any work executed with material or workmanship not in accordance with the drawings and specification or instructions and the Bidder shall forthwith carry out such order at his own cost. In case of default on the part of the Bidder to carry out such order, the Director, LBS Centre, shall have the power to employ and pay other persons to carry out the same, and all expenses consequent thereon, on incidental there to as certified by the consultant shall be borne by the Bidder or may be deducted by the Director, LBS Centre, from any money due, or that may become due, to the Bidders.

#### **18. Defects after completion:**

Any defect which may appear within the "Defects Liability Period" stated in visual the Appendix hereto, or if none stated, then within 24 months after the virtual completion of the works, arising in the opinion of the Consultant from materials/devices or workmanship not in accordance with the Contract, shall upon the directions in writing of the Director, LBS Centre, and within such reasonable time as shall be specified therein, be amended and made good by the Bidder at its own cost and in case of default the Director, LBS Centre may employ and pay other persons to amend and make good such defects, damages or loss and expenses consequent thereon or incidental thereto, shall be made good and borne by the bidder and such damage, loss and expenses shall be recoverable from him by the Director, LBS Centre or may be deducted by the Director, LBS Centre,

upon the Consultant's certificate in writing from any money due, or that may become due to the Bidder, or the Director, LBS Centre may in lieu of such amending and making good by the bidder deduct from any moneys due to the bidder a sum to be determined by the Director, LBS Centre equivalent to the cost of amending such works and in the event of the amount retained under Clause 30 hereof being insufficient, recover the balance from the Bidder, together with any expenses the Director, LBS Centre may have incurred in connection therewith. Should any defective work have been done or materials supplied by and sub-bidder employed on the works who has been nominated or approved by the Consultant as provided in Clause 11 and 21 hereof, the bidder shall be liable to make good in the same manner as if such work or materials had been done or supplied by the bidder and been subject to the provisions of this Clause and Clause 2 hereof. The bidder shall remain liable under the provisions of this clause notwithstanding the signing of any certificate or the passing of any accounts, by the Director, LBS Centre.

#### **19. Certificate of Virtual completion:**

The Works shall not be considered as completed until the Consultant has certified in writing that they have been virtually completed. The Defects Liability Period of 24 months & Defects shall commence from the date of such Certificates.

#### **20. Other persons employed:**

The reserves the right with the concurrence with the Consultant to use premises any portions of the site for the execution of any work not included in this contract by which it may desire to have carried out by other persons, and the bidder shall allow all reasonable facilities for the execution of such works but shall not be required to provide any plant or material for the execution of such work except by special arrangement with the Director, LBS Centre. Such work shall be carried out in such manner as not be impede the progress of the work include in the contract and the bidder shall not be responsible for any damage or delay which may happen to or occasionally by such work.

#### **21. Insurance in respect of damages:**

The Bidder shall be responsible for all injury or damage to persons, animals or things and for all damage to property, which may arise from to persons any factor omission on the part of the Bidder or any sub-bidder or any of their employees. The liability under this clause shall cover also interlay any damage to structures, whether immediately adjacent to the works or otherwise; any damage to roads, streets, footpaths, bridges as well as damage caused to the building and other structures and works forming the subject matter of this contract due to rain, wind, frost or other inclemency of weather. The bidder shall indemnify and keep indemnified the Director, LBS Centre and hold himself in respect of all and any loss and expenses arising from any such injury or damage to persons or property as aforesaid and also against to any claim made in respect of injury of damage, whether under any statute or otherwise and also in respect of any award or compensation for damage consequent upon such claim. the bidder shall at his own expense effect and maintain till issue of the virtual completion certificate under this contract, with an insurance company approved by the Director, LBS Centre, an All Risks Policy for insurance for the full amount of the contract including earthquakes risks in the joint names of the Director, LBS Centre and the bidder(the name of the former being placed first in the policy) against all risks as per Standard All Risk Policy for Bidders and deposit such policy or policies with the Director, LBS Centre, before commencing the works.

The bidder shall reinstate all damage of every sort mentioned in this clause, so as to do delivery of the fall of the work complete and perfect in every respect and so as to make good or otherwise satisfy all claims for damage of properties or third parties.

The bidder shall also indemnify and keep indemnified the Director, LBS Centre against all claims which may be need against the Director, LBS Centre by any persons and respect of anything which may arise in respect of the works or inconsequence thereof and shall at his own expense ,effect and maintain until the virtual completion of the contract, with an Insurance Company approved by the the Director, LBS Centre a policy of insurance in the joint names of the Director, LBS Centre

and the Bidder (the name of the former being placed first in the policy) against such risks and deposit such policy or policies before commencement of the works. The minimum limit of the coverage under the policy shall be Rs.2 lac per person for any one accident or occurrence and Rs.5lac in respect of damage to property for any one accident or occurrence. The bidder shall also indemnify the Director, LBS Centre against all claims which may be made upon the Director, LBS Centre whether under the Workmen's Compensation Act or any other statute in force, during the currency of this Contract or at Common Law in respect of any employee of the bidder or of sub-contract and shall be at his own expense effect and maintain until the virtual completion of the contract, or with an insurance company, approved by the Director, LBS Centre, a policy of insurance against such risk and deposit such policy or policies with the Director, LBS Centre from time to time during the currency of this contract.

In default of the bidder insuring as provided above, the Director, LBS Centre so insure and may deduct the premium paid from any moneys due to which may become due to the bidder. The bidder shall be, responsible for any liability which may not be covered by the insurance policies referred to above and also for all other damages to any person, animal or defective carrying out of this contract whatever, may be the reason shall have been caused.

The bidder shall also indemnify and keep indemnified by the Director, LBS Centre against all and any costs, charges or expenses arising out of any claim or proceedings relating to the works and also in respect of any awards or damage or compensation arising there from.

Without prejudice to the other rights of the Director, LBS Centre against bidders in respect of such defaults, the Director, LBS Centre shall be entitled to deduct from any sums payable to the bidder the amount of any damages, compensation posts, charges and other expenses paid by the Director, LBS Centre and which are payable by the bidder under this clause. The bidder shall upon settlement by the insurer of any claim made against the insuree pursuant to a policy taken under this clause, received with the diligence to rebuild or repair the works destroyed or damaged. In this event, all the moneys received from the insurer in respect of such damage shall be paid to the bidder and the bidder shall not be entitled to any further payment in respect of the expenditure incurred for rebuilding of the materials or goods destroyed or damaged.

The bidder, in case of re-erection or reinstatement after damage shall be entitled to such extension of time for completion as the consultant may deem fit, but shall, however, not be entitled to reimbursement by the Director, LBS Centre of any shortfall or deficiency in the amount finally paid by the insurer in settlement of any claim arising as set out herein.

Without prejudice to his liability under this clause, the bidder shall also cause all nominated sub-bidders to effect, for their respective portions of the work similar policies of insurance in accordance with the provisions of this clause and shall produce or cost produce to the Director, LBS Centre such policies. The bidder shall not permit to nominate sub bidder to commence work at this site unless they said insurance policies are submitted. In the event of failure of the sub-bidder to take out such a policy of insurance before commencing the works at the site, the bidder shall be responsible for any claim or damage attributable to the said sub-bidder.

## **22. Date of commencement:**

The Bidder shall be allowed admittance to the site on the 'Date of Commencement' stated in the Appendix hereto, or such later date as may be specified by the Director, LBS Centre and he shall there upon and forthwith begin works and shall regularly proceed with the complete the same on or before the 'Date of completion' stated in the Appendix subject nevertheless to the provisions for extensions of time herein after contained.

## **23. Cancellation of Contract for non-completion**

If the bidder fails to complete the works by the date stated in the Appendix or within any extended time under clause 24 hereof and the Consultant's certifies in writing that in his opinion the same ought reasonably to have been completed the Director, LBS Centre may take action to issue notice and terminate the contract at the risk and cost of the bidder as explained in clause 26

below. Without prejudice to any of the rights or remedies under this contract, Director shall have the opinion of terminating the contract without incurring any liability for such termination.

#### **24. Delay & Extension of time**

If in the opinion of the Consultant the works be delayed (a) by force majeure or (b) by reason any exceptionally inclement weather or (c) by reason of proceedings taken or threatened by or dispute with adjoining or neighboring owners or public authorities arising otherwise than through Bidder's own default or (d) by the works or delays of other Bidders or Tradesmen engaged nominated by the Director, LBS Centre and not referred to in the Bill of Quantities and Technical Specifications or (e) by reason of Consultant's' instructions as per Clause 2 hereof or (f) by reason of commotion, local combination of workmen or strike or lock out affecting any of the building trades of in consequence of the Bidder not having received in due time necessary instructions from Consultant for which he shall have specially applied in writing or (h) from other cause which the Consultant may certify as beyond the control of Bidder or (i) in the event, the value of the work exceed the value of the agreed price owing to variation, the Director, LBS Centre may allow a fair and reasonable extension of time for completion of the Contract works. In case of such strikes or lockout the bidder shall immediately give written notice thereof to the Director, LBS Centre but the Bidder shall nevertheless constantly use his endures to prevent delay and shall that may reasonably be required to the satisfaction of the Director, LBS Centre to proceed with work. This period of extension will be over and above the grace period allowed as per clause 21 of special condition contract.

If the Bidder needs an extension of time for the completion of the work of if the completion of work gets delayed for any reasons beyond the due date of completion stipulated in the contract Bidder shall apply to the Director, LBS Centre for extension of time in writing at least 7 days before the scheduled time and shall applying for extension of time Bidder shall furnish the reasons in and his justification, if any, for delays. Extension of time will be granted if the delay is not due to fault of the contract as given in specified Clause of special conditions. Even after the extended period of work is still not completed action may be taken for termination as given in specified Clause above.

Further the contract shall remain in force even for the period beyond the due date of commencement irrespective whether the bidder has applied for or not for the grant of extension of time for complies unless the Director, LBS Centre decides to terminate the contract. The delay for completion of work for any reason not entail any right to the bidder to claim any revision of rates or any extra compensation for reason.

#### **25. Failure by Bidder to comply instruction:**

If the Bidder after receipt of written notice from the Director, LBS Centre requiring compliance's ten days fails to comply with such further drawing and/or instruction with the Director, LBS Centre may employ and pay other persons to execute any such work whatsoever that may be necessitated give effect thereto, and all costs incurred in connection therewith shall be recoverable from the company by the Director, LBS Centre as a debt or may be deducted by him from any money due to the Bidder.

#### **26. Termination of the contract by the Director, LBS Centre:**

If the Bidder being an individual or a firm commits any "act of insolvency" or shall adjudged and insolvent or being an incorporated company shall have an order for the Director, LBS Centre, comprise winding up made against it or pass an effective resolution for winding up voluntarily or subject to supervision of the court and the official Assignee or the Liquidator in such acts of Insolvency or winding up, as the case may be, shall be unable within seven days after notice to him requiring him to do so show to the reasonable satisfaction of the consultant that he is able to carry out and fulfill the bidder to give security therefore, if so required by the consultant.



Or if the bidder (when an individual, firm or incorporated company) shall suffer execution or other process of court attaching property to be issued against the bidder.

Or shall suffer any payment under this contract to be attached by or on behalf of any of the creditors of the bidder.

Or shall assign or sublet this contract without the consent in writing of the Director, LBS Centre, first had and obtained.

Or shall charge or encumber this contract or any payment due or which may become due to the bidder here under.

Or if the consultant shall certify in writing to the Director, LBS Centre, that the bidder.

- (i) He has abandoned the contract, or
- (ii) Has failed to commence the works, or has without any lawful excuse under these conditions suspended the progress of the works for fourteen days after receiving the notice to proceed or
- (iii) Has failed to proceed with the works with such due diligence and failed to make such due progress as would enable the works to be completed within the time agreed upon, or
- (iv) Has failed to remove materials from the site or to pull down and replace work for seven days after receiving written notice that the said materials or work condemned and rejected by the consultant under these conditions, or
- (v) Has neglected or failed persistently to observe and perform all or any of the acts, matters or things by the contract to be observed and performed by the bidder of seven days after written notice shall have been given to the bidder to observe or perform the same.

Then and in any way of the said cases the Director, LBS Centre may notwithstanding any previous waiver, after giving fourteen days notice in writing to the Bidder, terminate the contract, but without thereby affecting the obligations and abilities of the Bidder, the whole of which shall continue in force as fully as if the contract had not been so terminated, and as if the work subsequently executed had been executed by or on behalf of the Contractor. And further, the Director, LBS Centre by his agents or employees or servants may enter upon and take possession of the works and all pans, tools, scaffoldings, sheds, machinery steam and other power utensils and materials lying upon the premises or the adjoining lands or roads, and use the same as his own property or they employ the same by means of his own employees or servants and workmen in carrying on and completing the works or by employing any other bidder or other person or persons to complete the works, and the bidder shall not in anyway intercept or do any act, alter or thing to prevent or hinder such other bidder or other person or persons employed for completing and finishing or using the materials and plant for the works. Then the work shall be completed or as soon thereafter as convenient the Director, LBS Centre shall give a notice in writing to the Bidder to remove his surplus materials and plant, and should the bidder fail to do so within a period of 14 after receipt thereof by him, the Director, LBS Centre, may sell the same by public auction, and give credit to the bidder for the net amount realized. the Director, LBS Centre shall thereafter ascertain and certifying in writing under his hand what (if anything) shall be due or payable to or by the Director, LBS Centre for the value of the said plant and materials so taken possession of by the Director, LBS Centre and the expense or loss which the Director, LBS Centre shall have been put to in procuring the works to be completed and the amount, if any, owing to the Bidder and the amount which shall be so certified shall thereupon be paid by the Director, LBS Centre, to the Bidder to the Director, LBS Centre as the same may be, and the decision of the Director, LBS Centre shall be final and conclusive between the parties.

## **27. Termination of Contract by Bidder:**

If the payment of the amount payable by the Director, LBS Centre under shall be unpaid for 30 days after notice in writing and requiring payment the unpaid amount as aforesaid shall have been given by the Bidder to the Director, LBS Centre or if the Director, LBS Centre interferes with or obstructs the issue of any such Certificates or, if the Director, LBS Centre shall repudiate

the Contract ,or if the works be stopped for three months under the order of the Director, LBS Centre or by an injection or other order of any court law, then and in any of the said cases the Bidder shall be at liberty to terminate the Contract by notice in writing to the Director, LBS Centre and he shall be entitled to recover from the Director, LBS Centre payment of all works executed and for any loss he may sustain upon any plant or materials supplied or purchased or prepared for the purpose of the Contract.

In arriving at the amount of such payment the net rates contained in the Bidder's original tender shall be followed or where the same may not apply valuation shall be made in accordance with clause 16 hereof.

## **28. Terms of Payment:**

- (a) 10% of contract value less retention amount on approval of GA drawing and PERT chart of Supply, Erection, Testing and Commissioning program and site organization chart.
- (b) 65% of the contract value will be released on pro-rata basis less retention money and statutory deductions on receipt/delivery of equipment/materials at site, on production of invoice and other relevant documents, after executing a security bond in stamp paper worth Rs.100/- draft of which is annexed.
- (c) Balance on production of statutory approvals.
- (d) Release of retention money shall be done as per tender condition.
- (e) There will be no mobilization advance.
- (f) Income tax, sales tax, work contract tax, labour welfare fund etc. as per applicable rules of Central/State Government will be deducted and paid to the respective departments and certificates will be issued to the Bidder.
- (g) If any amount which by virtue of this contract may be due to the Bidder not claimed for payment within 3 months from the date on which it falls due to the same will be placed in deposit account and if the amount so placed remains unclaimed for 3 years, thereafter the Bidder or other to whom it may legally due will forfeit the same which will be finally credited to the Director, LBS Centre.
- (h) No Certificate of the Director, neither LBS Centre nor any sum paid shall affect or prejudice his rights against the Bidder or release him of his contractual obligations or interpreted as approval of the materials supplied or works done.
- (i) AMC Charges will be released half yearly basis, after the completion of every half year of the AMC period.

## **29. Right of Technical Scrutiny:**

The Director, LBS Centre shall have a right to cause a technical examination of the works by any of the persons or organizations as appointed by the Director, LBS Centre and all bill of the bidder including all supporting vouchers, abstracts etc. of all bills. If as a results of this examination or otherwise any sum is found to have been over paid or ever certified it shall be lawful for the Director, LBS Centre to recover the sum from any payment due to the bidder for this works or any other work or works being carried out by the bidders elsewhere under the LBS Centre

## **30. Director entitled to pay compensation to workmen:**

If, for any reasons, the Director, LBS Centre is obliged, by virtue of the provisions of the workmen's compensation Act, 1923, or any statutory modification or re-enactment thereof to pay compensation to a workman employed by the Bidder in execution of the works, the Director, LBS Centre shall be entitled to recover from the bidder the amount of compensation so paid, without prejudice to the rights of the Director, LBS Centre under the said Act. The Director, LBS Centre shall be at liberty to recover such amount or any part thereof by deducting it from the security deposit or from any sum due by the Director, LBS Centre. The Director, LBS Centre shall not be bound to contest any claim made against it under the said Act, except on the written request of the bidder and upon his giving to the Director, LBS Centre full security to the satisfaction of the Director, LBS Centre for all costs for which the Director, LBS Centre might become liable in consequence of contesting such claim.

### 31. Abandonment:

If at any time after the acceptance of the tender, the Director, LBS Centre shall, for any reasons whatsoever not require the whole or works any part of the works to be carried out, the Director, LBS Centre shall give notice in writing to the Bidder who shall have no claim to any payment of compensation or otherwise whatsoever on account of any profit or advantage which he might have derived from the execution of the whole works.

### 32. Return of Surplus materials

**Not** withstanding any to the contrary surplus contained in any or all the clause of this materials Contract, where any material for the execution of the contract is procured with the assistance of the Director, LBS Centre the Bidder shall hold the said materials economically and solely for the purpose of the contract and no dispose of them without the prior written permission of the Director, LBS Centre and return it to the Director, LBS Centre if required by the Director, LBS Centre at the price to be determined by the consultant having due regard to the condition of the materials, the price to be determined to exceed the purchase price thereof inclusive of sales tax, octroi, and other such levies paid by the bidder in respect thereof. In the event of breach of the aforesaid condition, the Bidder shall, in addition to being liable to action for contravention of the terms of licenses or permit and criminal breach of Act , be liable to honor for all moneys, advantages or profit resulting or which in the usual course would be resulted to him reason of such breach.

### 33. Right of Director, LBS Centre to terminate contract:

Without prejudice to any of the rights or remedies under this contract, Director, LBS Centre shall have the opinion of terminating the contract without incurring any liability for such termination.

### 34. Marginal Notes:

The marginal notes and the catch lines hereto Notes in the annexure hereto are meant only for the convenience of reference and shall not in any way be taken into account in the interpretation of the presents and the annexure hereto. The bidder will have to carry out and complete the said work in every respect in accordance with this contract.

### 35. Summary Of Conditions:

Ref: to clauses in conditions herein force referred to

Clause	Particulars	Conditions
8	Defects liability period	24months
24(a)	Date of commencement	From the day of issue of acceptance letter /supply order/work order by the Director, LBS Centre
25	Date of completion	<b>SIX</b> months from the date of issue of acceptance Letter /supply order /work order.
	Termination due to default	As per Clause specified.
30.4.	Retention of Money Deposit	10% from each RA bill limited to 2.5% of PAC
	Security Deposit	5% of the contract value.
31(a)	Performance Guarantee Fund	Security Deposit + Retention Amount.
31(a)	Installment of payment after Virtual Completion	Security deposit of virtual completion 50% of the retention money on production of bank Guarantee for the full Defects Liability Period. Balance 50% of the Retention after the Defect Liability period.
31(g)	Period of honoring Certificate Payment	15 days for running bills and one month for final bill

**FORM OF TENDER**

Place:

Date :

To

The Director, LBS Centre  
LBS Centre for Science And Technology  
Palayam, Thiruvananthapuram

Sir,

Having examined the present site conditions in the premises of the Centre for Disability Studies, LBSITW Campus, Poojappura, Thiruvananthapuram, pre qualification conditions, general conditions, special conditions, bill of quantities and other instructions relating to the Supply, Installation, Testing and Commissioning of Passenger Lift at Centre for Disability Studies, LBSITW Campus, Poojappura, Thiruvananthapuram, specified in the Tender Document hereinafter set out and having examined the site of the works specified in the said tender document and having acquired the requisite information relating hereto as affecting the tender, I/We hereby offer to execute the works specified in the said tender document mentioned within the time specified in the said Tender Document at the quantities mentioned in the attached bill of quantities and in accordance in all respects with the specifications and instructions in writing referred to in conditions of tender, Articles of Agreement, General Instructions to Bidders, Special Conditions of Contract, General Conditions of Contract, Technical Specification, Special Conditions and bill of Quantities and with such materials as are provided for, by, and in all other respects in accordance with such conditions so far as they may be applicable.

**MEMORANDUM**

1. a) Description of work : Supply, Installation, Testing and Commissioning of Passenger Lift at Centre for Disability Studies, LBSITW Campus, Poojappura, Thiruvananthapuram.
  - b) Earnest money to be deposited : Rs 15,000/- as cash or crossed Bank Drafts or Treasury Savings Bank Deposits or Government Promissory Notes or Bank Guarantee or National Savings Certificate payable to the Director, LBS Centre, LBS Centre for Science and Technology, Thiruvananthapuram.
  - c) Security Deposit : 5% of the contract value (subject to a maximum of 50,000/-)
  - d) Retention amount : 10% from each RA bill limited to 2.5% of PAC
  - e) Period of completion : SIX Months from the date of issue of acceptance letter/ selection notice.
2. Should this tender be accepted:
- (a) I/We hereby agree to abide by and fulfill the terms and provision of the said conditions of contract annexed hereto so far as they may be applicable or in default thereof to forfeit and pay to LBS Centre for Science and Technology, the amount mentioned in said conditions.
  - (b) I/We have deposited a sum of `RS 15,000/- as Earnest money with the LBS Centre for Science and Technology, which amount is not to bear any interest. Should I/We fail to execute the Contract Agreement when called upon to do so, I/We do hereby agree that this sum shall be forfeited by me/us to the LBS Centre for Science and Technology.

- (c) It is also hereby specifically agreed that this tender will remain firm for a period of 90 days from the date of opening of cover 1 – Technical Bid and that if the Tender is withdrawn before that date, the Earnest Money Deposit given may be forfeited to the LBS Centre for Science and Technology.
- (d) It is also specifically agreed that arbitration will not be a mean to settle any dispute arising in this context. If disputes arising it will be settled in a Civil Courts having jurisdiction over Thiruvananthapuram and shall be competent for that.
- (e) Time shall be considered as of the essence of the contract and the bidder hereby agrees to commence the work in time, maintain such rate of progress as agreed therein and complete the work in all respect within **SIX** months from the date of hand over of site.

3. The Tender Notice shall form part of the Agreement.

4. Our Bankers are: (with full address)

(i)

(ii)

5. The names of partners of our firm are:

(i)

(ii)

6. Name of the partner of the firm Authorized to sign  
or  
Name of Person having Power of Attorney to sign  
the Contract (Certified true copy of the Power of  
Attorney should be attached)

(Signatures and address of witnesses)

(i)

(ii)

Yours faithfully

Signature of the Bidder

## ARTICLES OF AGREEMENT

ARTICLES OF AGREEMENT made the ..... day of ..... Two Thousand and Fifteen between the, LBS Centre for Science And Technology having its Office at Thiruvananthapuram (hereinafter referred as “Director” which expression shall where the context so admits or implies to be deemed to include his successors in office and assignees) acting for and on behalf of the Director LBS Centre for Science and Technology, Palayam, Thiruvananthapuram, Kerala State of the one part and .....

(Hereinafter called the “Bidder(s)” which expression shall where the context so admits or implies to be deemed to include his heirs, executors, administrators, successors in interest, legal representative and assignees as well) of the other part.

WHEREAS in response to the invitation for tenders as per notification no B1/...../2015 dated ....., the bounden has submitted to the Director, LBS Centre the tender for Supply, Installation, Testing and Commissioning of Passenger Lift at Centre for Disability Studies, LBSITW Campus, Poojappura, Thiruvananthapuram, specified therein subject to the items of work involved, specifications, bill of quantities, notice inviting tenders, general instructions to the tenders, special conditions of contract, general conditions of contract, technical specifications and special conditions, which together are termed as tender documents, and whereas the bidder has/have tendered for the execution of the work in accordance with the tender documents.

WHEREAS the bounden has also deposited with the Centre a sum of Rs 15,000/- as earnest money for execution of an agreement undertaking the due fulfillment of the contract in case his tender is accepted by the Director LBS Centre of LBS Centre for Science and Technology has accepted the tender of the said bounden. Now therefore it is hereby mutually agreed by the parties as follows:

1. In case the tender submitted by the bounden is accepted by the Director, LBS Centre with or without modification and the contract for Supply, Installation, Testing and Commissioning of Passenger Lift at Centre for Disability Studies, LBSITW Campus, Poojappura, Thiruvananthapuram is awarded to the bounden, the bounden shall within 15 days of acceptance of his tender execute an agreement with the Director, LBS Centre for Science and Technology, Thiruvananthapuram incorporating all the terms and conditions under which the Director, LBS Centre for Science and Technology, accepts his tender.
2. In case the bounden fails to execute the agreement as aforesaid incorporating the terms and conditions governing the contract, the Director, LBS Centre for Science and Technology, shall have the power to recover from the bounden any loss or damages caused to the Director, LBS Centre for Science and Technology by such breach as may be determined by the Director, LBS Centre for Science and Technology, appropriating the earnest money deposit or any kind of security furnished by the bounden and if the money or security is found to be inadequate the deficit amount may be recovered from the bounden and his properties movable or immovable and also in the manner hereinafter contained. The bounden will have no claim or right over the earnest money and or securities appropriated by the Director, LBS Centre for Science and Technology.
3. All sums found due to the Centre under or by virtue of this agreement shall be recoverable from the bounden and his properties, movable and immovable under the provisions of

Revenue Recovery Act for the time being in force, as though such sums are arrears of land revenue and also in such other manner as may deem fit

In witnesses whereof Sri. ...., the Director on behalf of the LBS Centre for Science and Technology, Palayam, Thiruvananthapuram and Sri. .... On and behalf of M/s ..... the bounden have hereinto set their hand on the day and year shown against their respective signatures.

Signed by Sri ..... Date .....

In presence of witnesses:

1. ....  
.....  
.....

2. ....  
.....  
.....

Signed by Sri ..... Date .....

In presence of witnesses:

1. ....  
.....  
.....

2. ....  
.....  
.....

## DECLARATION BY BIDDER

I ..... hereby declare that I am not related to an Employee of the LBS Centre for Science & Technology, Thiruvananthapuram who is in charge of or having control of this work. I agree that if at any stage it is proved that this declaration is untrue, the Earnest Money/Security Deposit paid by me will be forfeited and the Contract entered will stand cancelled. It is understood that the relationship with the Employee, LBS Centre for Science & Technology, Thiruvananthapuram, referred to herein will be restricted to my father, Mother, Son, Daughter, Brother, Sister, Direct Uncle, Nephew, Father-in-law, Mother-in-law, Brother-in-law, Sister-in-law and first Cousin of the Employee concerned.

SIGNATURE OF THE BIDDER

Place :

Date :



## CHAPTER- VI-TECHNICAL SPECIFICATION

### 1.General:

These specifications are intended to cover the work of Design manufacture, testing of works, delivery at site, erection, testing and commissioning of electric passenger lift.

The Electrical and mechanical equipments to be provided should be designed and manufactured to withstand severe environmental conditions of any typically hot and humid climate, with corrosive atmosphere. The manufactures of the equipment should consider the following typical weather conditions in this regard.

Maximum ambient temperature	:	45 deg. C
Maximum relative humidity	:	98%

### 2. Scope of work:

The works which are subjects of this tender shall include the following:

1. Supply, installation, testing and commissioning of Variable Voltage Variable Frequency Controller with Simplex Control system suitable for the Elevator, Eight passenger, serving Ground floor , first floor and Second floor, three landings on same side, Automatic center opening doors and duly provided with logic circuit and drive circuit consisting of safety circuit, call processing circuit MCB's power contactors, back up fuse units, cut off relays, trunking, terminal block for logic circuit and power terminals for power circuit, power pack consisting of Variable Voltage Variable Frequency drive, brake resistor.
2. Supply and fixing of hoist way switches, operating fixtures along with its connected accessories suitable for the proposed elevator system.
3. Supply and fixing of magnet switches, operating fixtures along with its connected accessories in the hoist way, suitable for the proposed elevator system.
4. Supply and fixing of cam and other mounting accessories in the hoist way, suitable for the proposed elevator system.
5. Supply and fixing of car inspection box with mounting accessories.
6. Providing of sound isolation rubber pad for the traction machine.
7. Supply and fixing of safety guards suitable for all rotating equipments.
8. Providing of VVVF door operating system including full infrared screen door safety suitable for the proposed elevator system.
9. Supply and fixing of cabin fan suitable for the elevator cabin.
10. Supply and fixing of electro mechanical floor selector, complete along with its accessories suitable for the proposed elevator system.
11. Complete wiring for the system for the elevator
12. Supply, installation, testing and commissioning of car operating panels, complete having operations for all the floors. Door Open, Door close, stop, alarm, floor position indicator, emergency light etc.
13. Supply, installation, testing and commissioning of landing board suitable for full collective operations along with digital floor position indicators.
14. Supply, installation, testing and commissioning of Automatic Rescue Device with emergency battery drive to bring the lift automatically to the nearest landing to rescue trapped passenger during power failure. The system should be complete with battery, charger, control drive, control devices etc

15. Provision of emergency alarm unit and emergency light with stainless steel faceplate inside the elevator cabin.
16. Commissioning and tuning of controller before operating the car.
17. Trial run of the elevator in inspection mode and checking of operating system in the lift well.
18. Supply and fixing stainless steel hand rail inside the car.
19. Electrical balancing of the elevator car.
20. Checking the over current, over voltage/under voltage settings.
21. Commissioning of the elevator in the normal mode ie. call registration, response to the calls, safeties, direction indicators, floor position indicators.
22. Setting of acceleration and deceleration parameters including leveling.
23. Final tuning, running & handing over of the elevator for regular use.
- 26 All scaffoldings that may be necessary in the lift well.

And minor building work (civil) such as chipping and grouting of the bolts inside the lift well, call button boxes at the entrance, emergency alarm box at the ground floor.

All steel items required for fixing the machine inside the lift wall and sill angle at all entrance should be given.

Necessary watch and ward arrangements for the materials and equipments brought on the site, till the complete installations are handed over to the Director, LBS Centre, for beneficial use.

The equipments required are outlined broadly herein without attempting to cover the technical specifications. Bidder shall provide all equipments, accessories and protective and control devices required for satisfactory operation of the passenger lift.

## **2.1 special conditions**

01. The entire installation shall conform to the requirements of the Lift Inspector / Electrical Inspector / Local Fire authorities and it is the sole responsibility of the Lift supplier to get approval for the Layouts and equipments and license for the operation of the Lifts.
02. The details mentioned above are indicative and the bidder has to include all standard features and safety devices in the scope of supply. All such details shall be clearly enumerated in their Tender.
03. All materials and services shall satisfy ISI specifications, samples of these must be furnished and got approved by the Director, LBS Centre.
04. No compensation for damage or replacement or other supplied incorrectly fabricated shall be entertained on any account.
05. All scaffolding supports, hoist beams etc, directly or indirectly for the works should be provided by bidder. The Director, LBS Centre should not be called upon to provide any facilities or materials other than those specifically to be agreed upon in the agreement. Responsibility for adequate electrical system for compliance with the local electrical inspectorate standards preparing electrical drawings applying to get these approved by the Inspectorate, making any additions or alterations in the electrical system for such compliance without extra charge are also deemed to be covered. No separate payments for any of these shall be made.
- 16 Deduction of sales tax or income tax payable by the bidder will be effected from the bills of the bidder if so required by the respective Department.
- 17 On no account final payment will be made before production of clearance certificate of S.T or income tax.
18. All sums found due to Government from the bidder, or by virtue of this agreement shall be recovered from the bidder if so required by the respective departments.

- 20 The full retention amount will not be released before the expiry of 24 months on completion of works including electrification and after the issue of certificate regarding completion of work or till final bill has been prepared and passed which ever is later, till then the responsibility of the work rests with the bidder.
- 07 The responsibility of maintaining stocks & providing security for the stocks shall remain with the Bidder.
- 08 All items should be carried out as per the relevant specification and all the clauses of preliminary specifications should be complied with.
- 09 The Bidder alone is responsible for the safety of his labourers and damages, if any, payable under workmen's Compensation Act will be to his debit.
10. Defects, if any noticed within 12 months from the date of completion of the work will be rectified by the bidder in default of which this will be attended by the Director, LBS Centre and the cost made good from the Bidder.
11. The Bidder agrees that before final payment shall be made on the contract he will sign and deliver to the agreement as demanded a valid realization and discharge from any and all claims and demands whatsoever for the matters arising out of connected with the contract provided that nothing in this Clause shall discharge or release this bidder from his liabilities under the Contract.

### **3. Tender Drawing and Data**

1. The Bidder shall furnish the following drawings in addition to the data as per schedule.
  - a. The drawings showing the plan of installation of lift car and counter weights.
  - b. The drawing showing the plan of installation of lift machine, controller etc. in the machine room.
  - c. After acceptance of the tender the bidder shall have to furnish all the data separately for each lift. The detailed drawings/data in respect of major items of equipment, viz. lift machines, governing equipments etc. and also drawing of electrical connections showing control scheme. A copy of which shall also be placed in conspicuous position in the machine room.
  - d. Instructions and service manner in connection with erection of equipments shall be handed over on completion of the work.

### **4. Standards & Codes:**

- a) Design of passenger lift and its components and their installation and working shall meet the requirements of the relevant Indian Standard Specifications.
- b) Quantity, Capacity & Speed: 1 no: 544 Kg (8 passenger) @ 1.0 M/Second

### **5. Travel:**

The Travel shall include levels starting from ground floor to bottom of the top floor landing.

### **6. Machine Location:**

- a. Located inside the hoist
- b. Fan, Light and alarm-bell power shall be provided by an independent power circuit so that these services shall remain operative in the event of abnormal stopping of motor. An outlet in the lift machine rooms to connect these circuits to building's emergency power supply will be provided.

## **7. Operation:**

1. The operation shall be simplex, full collective, with and without attendant.
2. The operating panel in the car shall include a series of push buttons corresponding to the floors served and various additional switches, buttons and light jewels as required, emergency stop switch, alarm button and door open button.
3. A complete operating panel shall be included in car at one side of the entrance to indicate stops registered by the button in the car.
4. The floor button in the operating panel shall illuminate and remain illuminated until the stop is cancelled.
5. At each landing served by these lift there shall be one push button fixture including UP & DOWN buttons at intermediate landing and single button at each terminal landing.
6. The stops registered by the momentary pressure of the car buttons shall be made automatically in succession as the car reaches the landing irrespective of the sequence in which the buttons are pressed. The sequence of operation shall be repeated at the landing for which calls are registered.
7. When the car reaches the reverse point the direction circuit shall be reverse automatically so that when doors closed, the car shall start the DOWN direction. During the down car travel all car calls and down landing course shall be answered in the same manner as prescribed for the UP trip.
8. A key switch shall be included in the main operating panel in each car for switching the elevator to the automatic 'With Attendant' operations or when desired 'Without Attendant' operation for 'With Attendant' operator for the use of Attendant there shall be included in the main operating panel in each car a landing light to be illuminated, a button to close the doors and start the lift, a non stop switch to have the car bypass landing calls if desired.
9. Car position indicator shall be fitted in the car with digital floor display system and illuminated direction arrows.
10. The hall buttons with position indicator should consists digital type position indicator.
11. Separate adjustable time shall be provided to establish minimum passenger trans time for car stop and hall stops.

## **8. Control/Drive:**

Shall be of A.C variable voltage and variable frequency, Micro Processor based, should be lift specific.

## **9. Hall Fixture:**

One set of hall button should be provided on each floor. The hall button should be combination of luminous hall button and digital position indicators. A single luminous button is to be provided at terminal floor combined with digital display to indicate the car position and arrow display for 'UP' and 'DOWN' direction. The fixtures to be provided are fireman's switch at main lobby, digital car position indicator in car, press and speak system in car with leads, battery operated alarm bell and emergency light.

## **10 Stops And Openings:**

Stops and openings shall be operable for 3 stops and 3 opening. All openings on same side. The openings are at Ground, First and Second Floor.

## **11 Car/Hoist Sizes:**

Space provided in the hoist way is 2000 mm W x 1900 mm D finished dimensions. Car size: 1300 mmW X 1100 mm D inside.

## **12 Buffers:**

Spring type buffer shall be provided for car and counter weight to support the impact loads of the Lift. A detail of pit is given in the drawing.

- i. Guides, fastenings, bearing plate, buffer supports etc.
- ii. Planed heavy duty steel tee sections shall be provided as car counter – weight guides. Stem section or guides shall be tongued and grooves to provide smooth joints.
- iii. Guide brackets of supports shall be welded to the steel plates provided in the hoist way by the Bidder.
- iv. Steel beams, channels, plates etc required for buffer support, bearing plates, separators for machine beams etc to be supplied and installed by the Bidder.
- v. All steel sections shall be of approved make and shall be duly painted.

### **13 Counter Weights:**

Counter weight shall consist of cast iron weights in structural steel frame. Counter weight shall be equal to the car and 40% of the contract load or any other percent to promote smooth and economical operation.

### **14 Ropes And Sheaves:**

Hoisting ropes shall be multi-strand traction steel with hemp core. The size and number of ropes shall be as required for achieving a factor of safety of not less than seven.

### **15 Hoist Way Entrance:**

The doors shall be of stainless steel centre opening type for the entrances and car door. For the landing, a full size steel entrance frame and fascia is provided with the door. Visual panels to be centrally located to allow adequate visibility to be made of specially toughened safety glass.

### **16 Door Operator-**

Automatic - Door operator shall be provided with following interlocking arrangements.

- a) Car shall not move until the hoist way door is mechanically located in the closed position.
- b) Hoist way door should not open from the landing side.
- c) Car shall not move while the car door is open.
- d) Gate operator shall open the gate at the landing where the car is stopping and not any other hoist way gate
- e) It shall be possible for door to reopen in case the doors are not able to close completely in the event of any obstruction while closing. The door shall then open and reclose once the obstruction is removed.

### **17 The design of the operator:**

The design of the operator shall be such that the car and the hoist way gates shall capable of being opened from within the car in the event of power failure. (Automatic Rescue Device)

### **18 Car:**

- i. The bidder should caught for walls made of stainless steel finish enclosure, with fan, lighting fixtures (diffused), emergency light and PVC flooring.
- ii. Car frame shall support the car platform and enclosure and shall be made of structural steel and equipped with suitable guides and car safety devices.
- iii. A flush type, lockable, hinged, stainless steel, car operating panel with micro-stroke classy transparent luminous button and the following devices shall be fitted in the car
  - a) Bank of call button corresponding to landings served

- b) Emergency stop switch
  - c) Alarm button
  - d) Non-stop button
  - e) Fan switch
  - f) Door open switch
  - g) Door close switch
  - h) Up and down reversal button
  - i) Key operated instruction switch
  - j) 'Up' & 'Down' direction indicator
  - k) Key operated selector switch for "Attendant" and "Automatic" operation
- iv. A digital car position and direction indicator shall be provided in the car indicating the landing at which the car is stopped or passing.
  - v. Fixing stainless steel hand rail inside the car.
  - vi. Car entrance shall be provided by stainless steel centre opening of the same as landing doors. Door shall be centre opening type and provided with safety devices.
  - vii. All exposed Lift metal work shall be given one shop coat of rust inhibiting paint before erection and two coats of final paint of approved shade after installation.
  - viii. Erection of equipment shall be carried out in work man like manner without causing any hindrance to the work of other bidders.
  - ix. All rotating equipment shall be mounted on suitable rubber / spring isolation mounts to minimize noise and vibration transmission.
  - x. Entire installation shall conform to the requirements of the lift inspector and it is the sole responsibility of the lift supplier to get approval for the layouts and equipment and license for the operation for the Lift.
  - xi. Steel ladders in the fits shall be provided by the Bidder. Light and plug points inside the lift shaft shall be proved by the purchaser.

#### **19 Testing & Commissioning:**

A contract load test under the supervision of the local authority and in the presence of Consultants shall be carried out of each Lift is put in regular service.

During testing the breaks, limit switches, buffers, car safety devices shall be caused to function with the contract load in the Lift and operation of various devices

- a) The leveling gear shall be tested on load and off-load to ensure car leveling within limits.
- b) The Lift must be tested for contract speed with full contract load.
- c) The Lift shall be accepted upon satisfactory completion of above tests.

#### **20 Technical Particulars:**

Tender shall furnish technical particulars as per "Schedule of Technical Data" and detailed technical particulars of the equipment offered.

Note: All scaffolding, supports, hoist beams etc. directly or indirectly for the works should be provided. The client should not be called upon to afford any facilities or materials other than those specifically to be agreed upon in the agreement. Responsibilities for adequate electrical system for compliance with the local electrical inspectorate, preparing electrical drawings applying to get these approved by the inspectorate, are also deemed to be covered. No separate payments for any of these shall be made.

#### **21 Electrical Equipment and Wiring Installation:**

##### **1. Scope:**

The scope of this section comprises supply and installation of electrical equipment such as, motors control wiring etc. Power will be supplied in the machine room with a switch fuse unit

with HRC fuses and ELCBs as required, for the Lift. All further wiring to motors and controller call buttons, alarm bell, car position indicators shall be provided by the lift Bidder.

## **2. Codes & Standards:**

- i. All electrical work carried out shall conform to the Indian Standard Codes of Practice and all equipment, drive motors etc. shall meet with the relevant Indian Standards.
- ii. All electricity operated equipment shall be suitable for 3 phases, 50 HZ, 4 wire supply with 415 V between phases and 240 V between phase and Neutral. The voltage and frequency of supply shall be subject to variations permissible under the Indian Electricity Act and Rule.

## **3. Wiring:**

- a. All wires and cables shall be insulated with polyvinyl chloride base insulation rendered flame retardant and rated for 650 Volts service and suitable for use in dry and wet locations. Makes of wires and cables shall be subject to the approval of the Consultant before use.
- b. All control wiring shall be of copper.
- c. Wires and Cables subject to movement and abrasion shall be protected by flexible galvanized steel conduit.
- d. Travelling cables shall be of the best grades for the service and, shall originate at steel junction boxes on the car, hung so that the proper size loop may be obtained. They shall have a fire and moisture resistant outer covering and contain a steel supporting strand. Travelling cables shall be suitably suspended to relieve strains in individual conductors. Travelling cables shall be provided for telephone, signals, controls, lights, fans, alarm bell, emergency circuit etc.

## DATA SHEET

### 8 PASSENGER LIFT – TRACTION TYPE (MRL)

1. Type of lift	Passenger lift
2. No. of lift required	one
3. Load	544 (8 Passenger)
4. Rated Speed	1.0 M/s
5. Name of floor served	Ground floor to 2 <sup>nd</sup> floor
6. Travel in meters	7.3 meters (approx)
7. Stops and landings	3 stops and 3 landings (All opening on Same side)
8. Control/Drive	AC variable Voltage variable Frequency drive Micro Processor Based
9. Operation	Simplex full collective with/without attendant
10. Size of shaft (Hoist way)	2000 mm wide 1900 mm deep inside Dimension (approximate)
11. Car size	1300 mm wide x 1100 mm deep inside Dimension
12. Detail and finish of car enclosure	Stainless steel car on all 4 sides (including return panels) and car door , floor PVC non skidding tiles
13. (a) Car Entrances	Centre opening stainless steel finish Sliding door clear opening 800 mm Wide x 2000 mm high
(b) Hoist way Entrance	-Do-
14. Door Operations	Automatic with full height infrared light Curtain
15. Signals	(a) Luminous hall buttons with digital Hall position indicators at all floors (b) Digital car position indicators with Direction indicator in each car (c) One (1) No. car operating panel with Luminous button in each car (d) Overload warning Audio indicators in car (e) Hall lanterns and going on all upper floors (f) Full load bypass feature for landing calls (g) Sealed maintenance free battery operated alarm and car light. All fixtures in stainless Steel (system should be complete with Battery, charger, alarm, light etc)
16. Intercom System with necessary Provision of cabling	Cabling and intercom unit
17. Car light and ventilation	Fluorescent light fitting with suspended Perspex ceiling. Cabin type pressure fan With concealed vents. Also emergency light



	Operating on 6Vsealed maintenance free Battery
18.(a)power supply	415 V+/- 15%, 50 Hz+-3% Ac3 phase 4 wire system – will be made available at a switch board. The switch board will be provided with all switches, ELCB, Fuse etc as per Inspectorate standards/ IS specifications. Light/exhaust fan/plug points for lift machine room & lift well be provided
19.Suitable device for lowering or raising the car	Normal cranking device
20. Arranging for opening all lift Doors	Car entrance and landing entrance doors at all floors shall be operable with one master key in case of emergency.
21. One ground switch for each lift at ground floor	To be provided
22. Fascia plate	Complete stainless steel fascia plates for all fixtures.
23. Automatic Rescue Devices	Emergency battery drive shall be Provided to bring lift automatically to nearest landing to rescue trapped passenger during power supply failure. The system should be complete with Battery, charger, control devices, drive etc
24. Painting	All exposed metal work shall be given One shop coat of rust inhibiting paint before erection and two coats of final paint of approved quality and colour after erection
25. Stainless Steel hand rail	Inside the car
26. Steel Ladder in pit	To be placed

**Performa to be submitted along the tender document in dully filled form**

01. Name of the Organization :
  02. Address :
  03. Year of Establishment :
  04. Status of Firm :
  05. Name of Directors/partners/proprietor :
  
  06. Class of Registration with Organizations :  
CPWD/Kerala State PWD/KSEB/others
  07. Name & Address of Bankers :
  
  08. Whether registered for Sales Tax (give regn.No.):
  09. Whether Assessee of Income Tax (give pan) :
  10. Field of Activities :
  11. Details of Lifts/elevators supposed to offer
    - (a) Brand/make of Lifts/Elevators :
    - (b) Whether manufacturer or authorized dealer :
  12. Description and value of similar works  
Executed during the last 3 years :  
(produce certificates(s) from owner(s) giving details)
  13. Maximum value of works executed per year :
  14. Name and addresses and telephone numbers of :  
responsible 3 persons who will be in position  
to certify the performance of your Organization
  15. Particulars in respect of major works :  
Executed per year for the last 5 years
  16. Key personals permanently employed
    - (1) Work force permanently employed :
    - (2) Work force temporally employed :
- Signature of the Bidder

- (3) Technical personal permanently employed :
- (4) Technical personal temporally employed :
17. Number of elevators under service within Thiruvananthapuram city and neighboring areas :
18. Availability of spares/stores :
19. Number of years experience in the field :
20. Electrical Inspectorate license number :
21. Hoisting and testing equipments details :
22. Safety Regulation Implementation :
23. Details of after sales services :

Note: Attach separate sheets if required for providing above information

## **Details of Six Similar Projects Executed During the Last Two Years**

### Work No. 1

- a) Name of work/project with address :
- b) Short description of work executed :
- c) Name & address of owner :
- d) Value of work executed the  
Contract with the Name & Address  
Of the work (Attach Certificate) :
- e) Stipulated time of completion :
- f) Actual time of completion :
- g) Name of Architect/consulting Engineer :

### Work No. 2

- a) Name of work/project with address :
- b) Short description of work executed :
- c) Name & address of owner :
- d) Value of work executed the  
Contract with the Name & Address  
Of the work (Attach Certificate) :
- e) Stipulated time of completion :
- f) Actual time of completion :
- g) Name of Architect/consulting Engineer :

### Work No. 3

- h) Name of work/project with address :
- i) Short description of work executed :
- j) Name & address of owner :
- k) Value of work executed the  
Contract with the Name & Address  
Of the work (Attach Certificate) :
- l) Stipulated time of completion :
- m) Actual time of completion :

n) Name of Architect/consulting Engineer :

Work No. 4

h) Name of work/project with address :

i) Short description of work executed :

j) Name & address of owner :

k) Value of work executed the  
Contract with the Name & Address :  
Of the work (Attach Certificate)

l) Stipulated time of completion :

m) Actual time of completion :

n) Name of Architect/consulting Engineer :

Work No. 5

o) Name of work/project with address :

p) Short description of work executed :

q) Name & address of owner :

r) Value of work executed the  
Contract with the Name & Address :  
Of the work (Attach Certificate)

s) Stipulated time of completion :

t) Actual time of completion :

u) Name of Architect/consulting Engineer :

Work No. 6

o) Name of work/project with address :

p) Short description of work executed :

q) Name & address of owner :

r) Value of work executed the  
Contract with the Name & Address :  
Of the work (Attach Certificate)

s) Stipulated time of completion :

t) Actual time of completion :

u) Name of Architect/consulting Engineer :

**TECHNICAL DETAILS OF THE LIFT PROPOSED**  
(To be submitted along with the tender document – cover-1)

Sl. No.	Description	Recommended	Proposed in the Tender
01.	Type of Lift	Passenger Lift (MRL)	
02	Make		
03	Maximum/Rated load	544kg (8 passenger)	
04	Rated speed	1.0 M/s	
05	Number of floor served	Ground floor to 2 <sup>nd</sup> floor(3 Nos.)	
06	Travel in meters	7.3meters(approx)	
07	Stops and Landings	3 stops and 3 landings (All opening on same side)	
08	Control/Drive	AC variable Voltage variable Frequency drive Micro Processor Based controller with micro leveling facility	
09	Operation	Simplex full collective with/without attendant	
10	Size of Shaft (Hoist way)	2000 mm wide 1900 mm deep inside Dimension (approximate)	
11	Car Size	1300 mm wide x 1100 mm deep inside Dimension	
12	Detail and finish of Car Enclosure	Stainless steel car on all 4 sides (including return panels) and car door, floor PVC non skidding tiles	
13	Car Entrances (Size and Finish)	Centre opening stainless steel finish Sliding door clear opening 800 mm Wide x 2000 mm high	
14	Hoist way Entrance (Size and Finish)	-Do-	
15	Door operations	Automatic with full height infrared light Curtain / protection	
16	signals	Luminous hall buttons with digital Hall position indicators at all floors	
		Digital car position indicators with Direction indicator in each car	
		One (1) No. car operating panel with Luminous button in each car	
		Overload warning Audio indicators in Car	
		Hall lanterns and going on all upper floors	
		Full load bypass feature for landing calls	
		Sealed maintenance free battery operated Alarm and car light. All fixtures in stainless Steel (system should be	

		complete with Battery, charger, alarm, light etc)	
17	Type of Intercom system with necessary system of cabling	Cabling and Intercom Unit	
18	Car Light and Ventilation	Fluorescent light fitting with suspended Perspex ceiling. Cabin type pressure fan With concealed vents. Also emergency light Operating on 6Vsealed maintenance free Battery	
19	Power Supply	415 V+/- 15%, 50 Hz+-3% Ac3 phase,4 wire system – will be made available at a switch board. The switch board will be provided with all switches, ELCB, Fuse etc as per Inspectorate standards/IS specifications. Light/exhaust fan/plug points for Lift machine Room & lift well be provided	
20	Suitable device for lowering or raising the Car	Normal cranking device or other mechanical device	
21	Arrangement for opening all lift doors	Car entrance and landing entrance doors at all floors shall be operable with one master key in case of emergency	
22	Fireman switch for each at ground floor for the lift	To be provided	
23	Fascia plate	Complete stainless steel fascia plates for all fixtures.	
24	Automatic Rescue Device	Emergency battery drive shall be Provided to bring lift automatically to nearest landing to rescue trapped passenger during power supply failure. The system should be complete with Battery, charger, control devices, drive etc	
25	Painting	All exposed metal work shall be given one shop coat of rust inhibiting paint before erection and two coats of final paint of approved quality and colour after erection	
26	Hand rail	SS handrail inside the car	
27	Ladder in pit	To be replaced	

**Performa to filled by the Bidder**

Sl. No.	Description	Remark(s) of the Bidder
1	Supply, installation, testing and commissioning of Variable Voltage Variable Frequency Controller with Simplex full Collective Control system suitable for the Elevator, Eight passenger MRL (Machine Room less) elevator, serving Ground floor and two upper landings, Automatic center opening doors and duly provided with logic circuit and drive circuit consisting of safety circuit, call processing circuit MCB's power contactors, back up fuse units, cut off relays, trunking, terminal block for logic circuit and power terminals for power circuit, cooling arrangements, power pack consisting of Variable Voltage Variable Frequency drive, brake resistor with independent cooling arrangement.	
2	Installation, grouting and alignment of Variable Voltage Variable Frequency controller.	
3	Supply and fixing of hoist way switches, operating fixtures along with its connected accessories suitable for the proposed elevator system.	
4	Supply and fixing of magnet switches, operating fixtures along with its connected accessories in the hoist way, suitable for the proposed elevator system.	
5	Supply and fixing of cam and other mounting accessories in the hoist way, suitable for the proposed elevator system.	
6	Supply and fixing of car inspection box with mounting accessories.	
7	Supply and fixing of hand wheel and its guard suitable for the traction machine of the elevator system.	
8	Providing of sound isolation rubber pad for the traction machine.	
9	Supply and fixing of safety guards suitable for all rotating equipments.	
10	Providing of VVVF door operating system including infrared screen door safety suitable for the proposed elevator system.	
11	Supply and fixing of cabin fan suitable for the elevator cabin.	
12	Supply and fixing of electro mechanical floor selector, complete along with its accessories suitable for the proposed elevator system.	
13	Complete wiring for the system, shaft and at all landings.	
14	Supply, installation, testing and commissioning of car operating panels, complete having operations for all the floors. Door Open, Door close, stop, alarm, floor position indicator, emergency light etc.	
15	Supply, installation, testing and commissioning of landing board suitable for collective selective operations	



	along with digital floor position indicators.	
16	Supply, installation, testing and commissioning of Automatic Rescue Device with emergency battery drive to bring the lift automatically to the nearest landing to rescue trapped passenger during power failure. The system should be complete with battery, charger, control drive, control devices etc.	
17	Provision of emergency alarm unit and emergency light with stainless steel faceplate inside the elevator cabin.	
18	Commissioning and tuning of controller before operating the car.	
19	Trial run of the elevator in inspection mode and checking of operating system in the lift well.	
20	Electrical balancing of the elevator car.	
21	Checking the over current, over voltage/under voltage settings.	
22	Commissioning of the elevator in the normal mode ie. call registration, response to the calls, safeties, direction indicators, floor position indicators.	
23	Setting of acceleration and deceleration parameters including leveling.	
24	Final tuning, running & handing over of the elevator for regular use.	

Additional work suggested, if any, may also be included in this Performa.