

**OPEN TENDER FOR
SUPPLY, INSTALLATION &
COMMISSIONING OF PASSENGERS(8)
LIFT**

**AT DAULAT RAM COLLEGE
(UNIVERSITY OF DELHI)**

TENDER ISSUED TO _____ :

DATE OF ISSUE _____ : 19.11.2018

LAST DATE FOR SUBMISSION: 03.12.2018 at 2.00 pm

DATE OF OPENING _____ : 03.12.2018 at 4.00 pm

Technical Specifications & Additional Conditions

1. Inspections:-

- (a) The contractor should satisfy himself that the stores are in accordance with conditions of contract and fully confirm to the required specifications by the carrying out thorough pre-inspection of each quota before actually tendering the same to the inspecting officer nominated under the terms of the contractor.
- (b) The tenderer will provide all documents for obtaining license from the concerned department and in case of any deficiency, the same will be rectified.
- (c) The payment of the contractor will be released only after delivery/ installation of stores are duly complete and checked by the Engineer-in-Charge of the work.
- (d) The Engineer-in –Charge will be at liberty to get the work inspected through CTE or any other agency appointed by the College and the results of their findings shall be binding on the contractor.

2. Installation work:-

- (a) The installation of lift would be carried out in close co-ordination with the building work. This being the essence of the work, no claim for idle labour will be entertained.
- (b) Scaffolding and barricading will be done by the tenderer. Minor repair work will be carried out by the civil contractor.
- (c) The contractor shall bear all the incidental charges for cartage, storage and safe custody of materials issued to him by the deptt.
- (d) Tenderer will be responsible if work is sub let. Then the tenderer will be responsible for the workmanship and supervision of work.
- (e) The contractor at his own expense shall confirm to all anti malarial instructions given to him by the Engineer-in-Charge including filling up of any pits, which have been dug by him.

3. Conformity with the statutory Acts, Rules, Regulation, Standard, Specification and Safety codes.

- (a) The installation shall be carried out in conformity with local lifts Act & Rules e.g. the Bombay lift Act. As extended to Delhi for Delhi. The installation shall also confirm to requirement of Municipal by Laws.

- (b) All electrical work in connection with the installation of electric lights/ installations shall be carried out in accordance with the provisions of India Electrical Act 1910 & India electricity rules 1956 amended u to date. The electrical work shall also confirm to CPWD general specification for electrical work part-I (Internal) 1994 & Part –II (External) 1955 as amended up to date wherever relevant
- (c) The lift and its components shall confirm to relevant specification specified by the bureau of India standards related to the work and CPWD general specifications for electric works part-III (Lift) 1982 as amended up to date.
- (d) The tenderer shall at his own expense arrange for the safety provisions as per the statutory regulations IS recommendations, regulations under factory act etc. wherever applicable and instructions issued time to time in respect to all labour employed by him directly or indirectly for installation of lift. The tenderer shall provide barriers, warning signs and other safety measures etc. so as to avoid accidents. In addition to all safety measure of CPWD specification part-III (Lift) 1982. In case of default the indenter shall be at liberty to make arrangements and provide facilities as aforesaid and recover the cost from contractor. He shall also indemnify College against claim for compensation arising out of his negligence in this record.

(e) fire Regulations :-

The installation shall be carried out in conformity with local fire regulations and rules there under wherever they are enforced. Fireman switch be provided.

(f) General :-

All works shall be carried out in accordance with relevant regulations, both statutory and those specified by the bureau of India standards related to the work covered by these specifications

-Regulations Under factory Act.

-Regulations Under India electricity Act.

-IS Standards as applicable.

-Workman's compensation Act.

-Regulation Under Provisions of contract labour Act and central rule.

Nothing in these specification construed to relieve the successful tenderer of his responsibility for the design, manufacture and installation of the equipment with all accessories in acceptance with the currently with the currently applicable statutory regulations and safety.

4. work to be done by the indenter:-

The indenter shall be responsible for the following works only are excluded from the contractor works.

(a) Provision of 3 phase 4 wire 50Hz 415 Volts A.C power supply terminated at required location with suitable size of TP & N switch fuse with double earthing.

(b) Provision of single phase 50 Hz 230 Volt A.C Power supply terminated with suitable size SP & N switch fuse lighting at required location & lift well.

Note: The lift supplier shall indicate the required number and capacity for above items.

- (c) Provision of suitable storage space.
- (d) Proper lift well and water proof pit.
- (e) Provision of adequate lighting at all landings.
- (f) Provision of hoisting beam or hook above the lift well and trap door if required.
- (g) Architrave work at lift entrance.

In addition, the following additional work also to be done by the tenderer: Providing Double Earthing and is required upto landing; MCB, DB Box, Shaft lighting as per requirement to be done by department (Bulk Head Light with 3 pin socket); Architrave, Making of opening in walls/floors either RCC or brick masonry major civil if required will be done by College. The tenderer will do the scaffolding, barricading; All electrical work.

5. Work to be done by the Tenderer :-

In addition the manufacture, supply, installation, testing and commissioning of the lift including all auxiliary equipments following works shall be deemed to be including within the scope of the work to be done by the contractor.

- (a) The tenderer will provide scaffolding and barricades.
- (b) Supply of necessary joints or angle iron support etc for installation of lift either in the machine room at other place as may be necessary including their installation in position.
- (c) All electrical work except bringing in main connection and earth connection to machine room terminated on suitable switch fuse unit. All electrical work interconnection from this switch / board and the successful contractor shall do loop earthing from the earth bar to be provided in the machine room.
- (d) Responsible to ensure safety of lift material against pilferage and damage till the installation is handed to consignee.
- (e) All scaffolding as may be necessary in the lift well during erection work and subsequently removed.
- (f) Temporary barricades with caution boards at each landing to prevent accident during the execution of the work.
- (g) Supplying and installation of lading facial plate made of steel plates sill support angles with necessary clamps foundation bolts etc as required in connection with the installation of the lift.
- (h) Mild Steel ladder to be provided for access to lift pit wherever required under regulation.

6. Co-ordination with other agencies :-

The successfully contractor shall co-ordinate lift installation work with other contractor / agencies engaged in construction of the building and exchange freely all technical information so as to make the execution work contract smooth.

7. Completeness of Tender:-

All fitting equipment, unit assemblies and accessories, hard ware item, foundation bolts, terminal, lugs for electric connection, cable gland, junction box items which are useful & necessary for efficient assembly in operation and installation shall be deemed to have been included in the scope of the work within the rates quoted, unless otherwise specially indicated in the tender. The installation shall be complete in all details whether such details have been mentioned in the specification or not.

8. Taxes and Duties:-

No taxes will be paid separately. Rate should be quoted inclusive of taxes if any.

9. Guarantee/Warrantee :-

All the equipment shall be guaranteed/warrantee for a period of 12 Month from the date of commissioning and handing over to the department. Defective material / equipment shall be replaced / repaired free of cost at the direction of Engineer-in-Charge.

10. Maintenance Service:-

The contractor will provide free maintenance service for 12 Month after actually handing over the lift to the consignee for use. The contractor shall furnish maintenance instructions, wiring diagram and spare parts catalogue with sketches & reference no's etc.

11. Acceptable Makes:-

Acceptable makes are Schindler, Otis, Kone, Mitusubishi, Johnson, Thyssen Krupp, and Esccon.

PRINCIPAL

Commercial and Additional Conditions

1.0 General

1.1 This specification covers manufacture, testing as may be necessary before dispatch, delivery as site, all preparatory work, assembly and installation, commissioning putting into operation of MRL Lifts.

1.2 Location

The MRL Lifts/ Escalators will be installed at **Daulatram College, University of Delhi.**

1.3 The work shall be executed as per up to date CPWD General Specifications for Electrical Works (Part III Lifts & Escalators-2003) as per relevant IS codes and as per directions of Engineer-in-Charge. These additional specifications are to be read in conjunction with above and in case of variations; specifications given in this Additional conditions shall apply. However, nothing extra shall be paid on account of these additional specifications & conditions as the same are to be read along with schedule of quantities for the work.

1.4 The tenderer should in his own interest visit the site and familiarize himself with the site conditions before tendering.

1.5 No T&P shall be issued by the Department and nothing extra shall be paid on account of this.

1.6 The tenderers should be O.E.M of lift.

2.0 Commercial Conditions

2.1 Type of Contract

The work to be awarded by this tender shall be treated as indivisible works contract.

2.2 Submission and opening of Tenders:

2.2.1 The tender is in two parts:

- (a) Part I – Technical cum commercial Bid
- (b) Part II – Price Bid

2.2.2 The tenderers are advised not to deviate from the technical specifications/ items, commercial terms and conditions of NIT like terms of payment, guarantee, arbitration clause, escalation etc.

2.2.3 The technical cum commercial bid only, shall be opened first on the due date and time.

- 2.2.4 Scrutiny/ evaluation of the technical-cum-commercial bid shall be done by the department in consultation with any agency as deemed necessary. In case it is found that the technical-cum-commercial bid of a tenderer is not in line with NIT specifications, requirements and/ or contains many deviations, the department reserves the right to reject the technical bid of such firms (s) without making any reference to the tenderer (s).
- 2.2.5 Necessary clarifications required by the department shall have to be furnished by the tenderer within the time given by the department for the same. The tenderer will have to depute his representative to discuss with the officer(s) of the department as and when so desired. In case, in the opinion of the department a tenderer is taking undue long time in furnishing the desired clarifications, his bid will be rejected without making any reference.
- 2.2.6 The contractor shall be required to submit the price bid in a sealed envelope containing two separate sealed envelopes as under: -
- I. First envelope: Earnest money amounting to Rs. 28,000/- in prescribed manner. The name of work and the words "EMD amount" should be written on top of this sealed cover. EMD should be in shape of DD or pay order of a scheduled/ nationalized bank guaranteed by RBI and drawn in favor of Principal, Daulat Ram College.
 - II. Second envelope: Price Bid (Part-II of tender). The name of work and the words "Price Bid" should be written on top of the sealed cover. It shall contain: -
"Price bid (Part-II of tender) as issued by the department duly filled & signed.
- 2.2.7 The tenderers will have to fill up their rates only in the Financial Bid issued by the department. Tenders in which the Financial Bid are given in any other format are liable to be rejected. The abstract of cost will be required to be filled in.
- 2.2.8 The officer opening the tender shall first open the envelope containing earnest money. If the earnest money is found to be in order, only then the officer shall proceed further with the opening of second envelope containing price bid. In case the Earnest money deposited is not in order, the price bid shall not be considered.
- 2.2.9 In the price bid, there shall be no conditions whatsoever. In case any tenderer mentions any condition including conditional rebates in their price part, tender shall be rejected forthwith. A tender will also not be allowed to withdraw or modify and condition at a time after the technical bids have been accepted and the decision to open the price bid has been taken by the department.

2.2.10 The department reserves the right to reject any or all the price bids and call for fresh prices/tenders as the case may be without assigning any reason.

Terms of Payment:

The following percentage of contract rates for the various items included in the contract shall be payable against the stage of work shown herein.

3.1 80% on material at site in good condition.

3.2 20% after completion of installation and testing, trial run and handover of lift.

3.3 Security Deposit:

Security deposit is payable as per Delhi University norms.

4. Rates:

4.1 The rates quoted by the tenderer, shall be firm and inclusive of all taxes (including works contract taxes), duties and levies and all charges for packing forwarding, insurance, freight and delivery, installation, testing, commissioning etc. at site i/c temporary constructional storage, risks, overhead charges general liabilities/ obligations and clearance from local authorities. However, the fee for these inspections shall be borne by the department.

4.2 The contractor has to carry out routine & preventive maintenance for 12 months from the date of handing over. Nothing extra shall be paid on this account.

5.0 Completeness of tender:

All sundry equipment, fittings, unit assemblies, accessories, hardware items, foundation bolts, termination lugs for electrical connections, and all other items which are useful and necessary for efficient assembly and installation of equipment and components of the work shall be deemed to have been included in the tender irrespectively of the fact whether such items are specifically mentioned in the tender documents or not.

6.0 Storage and custody of materials:

A lockable and water proof store with lighting arrangement of sufficient capacity will be provided until handing over of the lift.

7.0 Care of the Building:

Care shall be taken by the contractor while handling and installing the various equipments and components of the work to avoid damage to the building. He shall be responsible for repairing all damages and restoring the same to their original finish at his cost. He shall also remove at his cost all unwanted and waste materials arising out of the installation from the site of work.

8.0 Completion period

The completion period of two months for the entire work of supplying, installation, testing, commissioning and handing over of the entire system to the satisfaction of the College. The period can be extended by maximum one month if there is valid reason.

9. Performance Guarantee:

9.1 The tender shall guarantee among other things, the following

- (a) Quality, strength and performance of the materials used.
- (b) Safe mechanical and electrical stress on all parts under all specified conditions of operation.
- (c) Satisfactory operation during the maintenance period.

9.2 The successful tenderer shall submit an irrevocable performance guarantee of 5% of the tendered amount in addition to other deposits mentioned elsewhere in the contract for his proper performance of the contract agreement within 7 days of issue of letter of intent. This guarantee shall be in the form of government securities or fixed deposit receipts or guarantee bonds of any scheduled bank or the State Bank of India in the specified format. The performance guarantee shall be initially valid up to the stipulated date of completion plus 15 days beyond. The bank guarantee kept valid till the recording of completion certificate for the work by the competent authority.

10. Guarantee

10.1 All equipments shall be guaranteed for a period of 12 months from the date of taking over the installation by the department against unsatisfactory performance and/ or break down due to defective design, workmanship of material. The equipments or components, or any part thereof, so found defective during guarantee period shall be forthwith repaired or replaced free of cost, to the satisfaction of the Engineer-in-Charge. In case it is felt by the department that undue delay is being caused by the contractor in doing this, the same will be got done by the department at the risk and cost of the contractor. The decision of the Engineer-in-Charge in the regard shall be final.

11. Power Supply

Electric service connection of 415 V, 3 phase, 4 wires, 50 Hz, AC supply OR as available at site shall be provided by the Deptt. for installation purpose free of charge.

12. Water Supply

Water supply shall be made available by the department at one point.

13. Data Manual and Drawings to be furnished by the tenderers:

13.1 **With Tender:** tenderer shall furnish along with the Technical Bid detailed technical literature, pamphlets and performance data for appraisal and evaluation of the offer.

13.2 After Award of work

I. The successful tenderer would be required to submit the following drawings within a week of award of work for approval before commencement of installation.

- a) All general arrangement drawings.
- b) Details of foundations for the equipment, load data, location etc. of various assembled equipment as may be needed generally by other agencies for purpose of their work. The data will include breaking load on guides, reaction of buffers on lift pits reaction on support points in machine room, lift well etc.
- c) Complete layout dimensions for every unit/ group of units with dimensions required for erection purposes.
- d) Any other drawing/ information not specifically mentioned above but deemed to be necessary for the job by the contractor.

14.0 The successful tenderer should furnish well in advance three copies of detailed instruction and manuals of manufacturers for all items of equipments regarding installation, adjustments operation and maintenance i/c preventive maintenance & trouble shooting together with all the relevant data sheets, spare parts catalogue and workshop procedure for repairs, assembly and adjustment etc. all in triplicate.

15.0 Extent of work

15.1 The work shall comprise of entire labour including supervision and all materials necessary to make a complete installation and such tests and adjustments and commissioning as may be required by the department. The term complete installation shall not only mean major items of the plant and equipments covered by specifications but all incidental sundry components necessary for complete execution and satisfactory performance of installation with all layout charts whether or not those have been mentioned in details in the tender document in connection with this contract.

15.2 Minor building works necessary for installation of equipment, and restoring to their original condition, finishing work etc. as required.

15.3 Maintenance (Routine & preventive) for one year from date of completion and handing over.

15.4 The work is turn key project. Any item required for completion of the project but left inadvertently shall be executed with-in the quoted rates.

16.0 Inspection and testing:

16.1 Copies of all documents of routine and type test certificates of the equipment, carried out at the manufacturers premises shall be furnished to the Engineer-in-charge and consignee.

16.2 After completion of work, the license will be applied by College, but the tender will extend all technical support and documentation to obtain the license.

17.0 Validity

Tenders shall be valid for acceptance for a period of 30 days from the date of opening of Financial bid.

18.0 Compliance with Regulations and Indian standards

18.1 All works shall be carried out in accordance with relevant regulation, both statutory and those specified by the Indian Standards related to the works covered by this specification. In particular, the equipment and installation comply with the following:

- (i) Factories Act.
- (ii) Indian Electricity Rules
- (iii) I.S. & BS Standards as applicable
- (iv) Workmen's compensation Act
- (v) Statutory norms prescribed by local bodies.

18.2 Nothing in this specification shall be construed to relieve the successful tenderer of his responsibility for the design, manufacture and installation of the equipment with all accessories in accordance with currently applicable statutory regulations and safety codes.

18.3 Successful tenderer shall arrange for compliance with statutory provisions of safety regulations and departmental requirements of safety codes in respect of labour employed on the work by the tenderer. Failure to provide such safety requirement would make the tenderer liable for penalty of Rs. 1000/- for each default. In addition, the department will be at liberty to make arrangement for the safety requirements at the cost of tenderer and recover the cost thereof from him.

19.0 Indemnity

The successful tenderer shall at all times indemnify the department, consequent on this works contract. The successful tenderer shall be liable, in accordance with the Indian Law and Regulations for any accident occurring due to any cause and the department shall not be responsible for any accident or damage incurred or claims arising there from during the period of erection, construction and putting into operation the equipments and ancillary equipment under the supervision of the successful tenderer in so far as the latter is responsible. The successful tenderer shall also provide all insurance including third party

insurance as may be necessary to cover the risk. No extra payment would be made to the successful tenderer due to the above.

20.0 Erection Tools

No tools and tackles either for unloading or for shifting the equipments for erection purposes would be made available by the department. The successful tenderer shall make his own arrangement for all these facilities.

21.0 Cooperation with other agencies

The successful tenderer shall co-ordinate with other contractors and agencies engaged in the construction of building, if any, and exchange freely all technical information so as to make the execution of this works contract smooth. No remuneration should be claimed from the department for such technical cooperation. If any unreasonable hindrance is caused to other agencies and any completed portion of the work has to be dismantled and re-done for want of cooperation and coordination by the successful tenderer during the course of work, such expenditure incurred will be recovered from the successful tenderer if the restoration work to the original condition or specification of the dismantled portion of the work was not undertaken by the successful tenderer himself.

22.0 Mobilization Advance

No mobilization advance shall be paid for this work.

23.0 Insurance and Storage

All consignments are to be duly insured up to the destination from warehouse to warehouse at the cost of the supplier. The insurance covers shall be valid till the equipment is handed over duly installed, tested and commissioned.

24.0 Verification of correctness of Equipment at Destination

The contractor shall have to produce all the relevant records to certify that the genuine equipment from the manufacturers has been supplied and erected.

25.0 Painting

This shall include cost of painting of entire exposed iron work complete in the installation. All equipments works shall be painted at the works before dispatch to the site.

26.0 Training

The scope of works includes on job technical training of two persons at site. Nothing extra shall be payable on this account.

27.0 Maintenance

27.1 Sufficient trained and experienced staff shall be made available to meet any exigency of work during the guarantee period of one year from the handing over of the installation.

27.2 The maintenance, routine as well as preventive for one year from the date of taking over the installation as per manufacturer's recommendation shall be carried out and the record of the same shall have to be maintained.

28.0 Interpreting Specifications

In interpreting the specifications, the following order of decreasing importance shall be followed in case of contradictions:

- (a) Schedule of quantities
- (b) Technical specifications
- (c) Drawing (if any)
- (d) General Specifications
- (e) Relevant IS or other international code in case IS code is not available.

ADDITIONAL SPECIFICATIONS

1. Type of Lift	Passenger-Lift (MRL)
2. Number of Lifts reqd.	One
3. Load: Number of Persons	08
4. Rated Speed	1 MPS
5. Travel in meters	12 meters (Approx)
6. Number of floors served	03 (Gnd+02)
7. (a) Inside size of lift well	1850mm W x 1700mm D
(b) Pit depth	1.6m
(c) Head Room	4.6m
8. Clear inside size of lift car	
9. Position of Machine room	Machine Room less
10. (a) Type of Control	Microprocessor based AC variable voltage frequency
(b) Type of operation	Simplex selective-collective operation with / without Attendant / duplex collective selective operation with / without attendant / automatic group supervisory control.
(c) Potential free contacts	Potential free contacts for each floor position and up & down movement of the lift shall be provided in the controller which can be used for the building automation system at later date.
11. Car entrance door	
(a) Number	one
(b) Size	
(c) Type of doors	Horizontal sliding-center opening / telescopic
(d) Car open in front only or open	In front only
12. Construction design and finish of car body work	As per general specifications in case of special require- ments NIT approving authority may specify
13. Type of signal system	(a) Digital floor position indicator in the car and at all landings (to be provided above the car / landing doors. (b) Travel direction indicator will be combined with car operating panel and Hall Button since the same is helpful and approachable for physically challenged person.

- (c) Overload warnings Audio & Visual indicator, inside the car (lift should not start on overload).
- (d) Battery operated alarm bell & emergency light.
- (e) Car operating panel with fade proof luminous buttons in car and with intercom.
- (f) Luminous hall buttons at all landings.
- (g) Fireman's switch at ground floor.

14. Landing entrance

- (a) Location of landing entrance in different floors All doors on the same side.
- (b) Number Three
- (c) Size
- (d) Type of doors Horizontal sliding-center opening/ telescopic
- (e) Lift in use / Lift out of order sign A suitable box above the lift landing with LED illuminated bilingual (in English & Hindi) sign of "LIFT OUT OF ORDER" coming up simultaneously at all floors.

15. Electric Supply

- (a) Power:- 415V, AC, 3-phase, 50Hz, 4-wire system
- (b) Lighting:- 230V, AC, 50 Hz

16. Is neutral wire available for control circuits

3 phase power supply with four wire has to be provided.

17. Proposed date for commencement on site

with in seven days of supply installation order date.

18. Proposed date of completion

within two months

19. Environmental condition at site of installation

- Summer condition
- Winter condition
- Monsoon condition
- Height above sea level

20. Additional item, if any

TECHNICAL PARTICULARS

<i>S.No</i>	<i>Particulars of Details</i>
A.	<p>General:</p> <ol style="list-style-type: none"> 1. Name of Manufacturer 2. Country of Manufacturer 3. Capacity (Person / Weight) 4. Service 5. Speed of Travel 6. Height of Travel 7. No. of floors served 8. No. of openings 9. Position of counterweight 10. Type of leveling method.
B.	<p>Machine:</p> <ol style="list-style-type: none"> 1. Position of Machine 2. Motor 3. Electric supply particulars for which it is suitable for operation.
C.	<p>Brake:</p> <ol style="list-style-type: none"> 1. Type
D.	<p>Cars & Doors:</p> <ol style="list-style-type: none"> 1. Outside dimensions of car. 2. Inside clear dimensions. 3. Construction of Car 4. Design/type of enclosure of car 5. Details of flooring 6. Attachment & fitting inside the car 7. Car doors: <ol style="list-style-type: none"> (a) Size (b) Operation (c) Construction, design & finish 8. Landing doors: <ol style="list-style-type: none"> (a) Size (b) Operation (c) Construction, design & finish
E.	<p>Safety Devices:</p> <ol style="list-style-type: none"> 1. Car safety-type 2. Counter weight safety-type 3. Door inter locks in car-type 4. Door locks in landing-type
F.	<p>Other Safeties included in the offer:</p>

PRINCIPAL

Name of Work:- **SUPPLY, INSTALLATION & COMMISSIONING OF PASSENGERS(8) LIFT AT DAULAT RAM COLLEGE, UNIVERSITY OF DELHI, DELHI -110 007.**

S. No.	Description	Qty.	Rate	Unit	Amount
1.	<p>Supplying, installation, testing & commissioning of 8 passengers (544 kg) MRL lift having contract speed of 1 MPS serving different floors in the existing lift shaft as per detailed specifications enclosed and as under:- Location of Lifts: DAULAT RAM COLLEGE</p> <ul style="list-style-type: none"> (i) Speed : 1 MPS (ii) Floors : 03 (Gnd+02) (iii) Travels: 12 Meters (approx) (iv) Stops & opening : Three (v) Controller: A.C. variable voltage & variable frequency. (vi) Automatic rescue device complete with dry maintenance free batteries as required. (vii) Operation: Simplex Down Collective System with/ without attendant. (viii) Power : 415V, 3 phase, 50Hz, 4-Wire system (ix) Type of doors <ul style="list-style-type: none"> a. Car: Stainless steel Door two Panel Telescopic opening Auto door in Moon Rock Finish with full Curtain infrared door Safety b. Landing doors: Stainless steel Moon Rock Finish Door two Panel Telescopic opening Auto door having full Curtain infrared door Safety (x) A hand rail not less than 600 mm long at 900 mm above floor level to be fixed adjacent to control panel in the lift car. (xi) Voice announcement system in the car to announce the position of the elevator in the hoist way as the car passes or stops at a floor served by the elevator. 	1		Each	

Total =

Add Contingencies @ 5% =

Total =

(Rs.)

